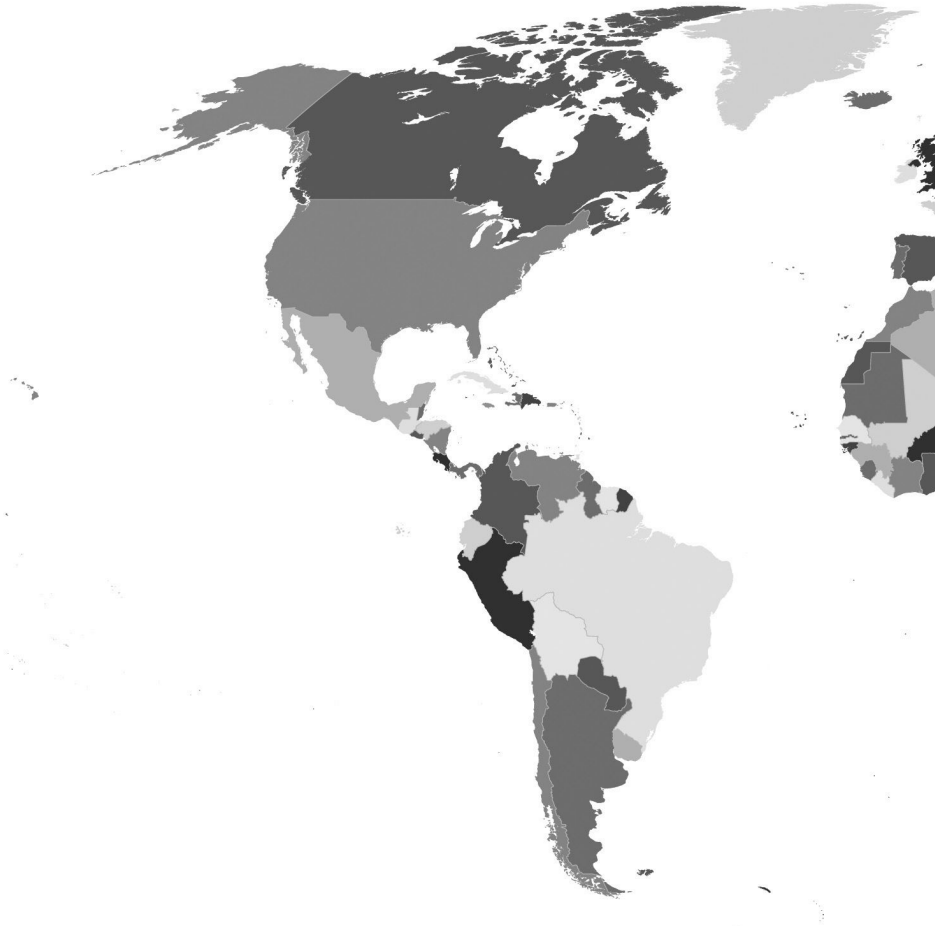
ETHICS

for INTERNATIONAL MEDICINE

A PRACTICAL GUIDE for AID WORKERS in DEVELOPING COUNTRIES

ANJI E. WALL

Ethics for International Medicine



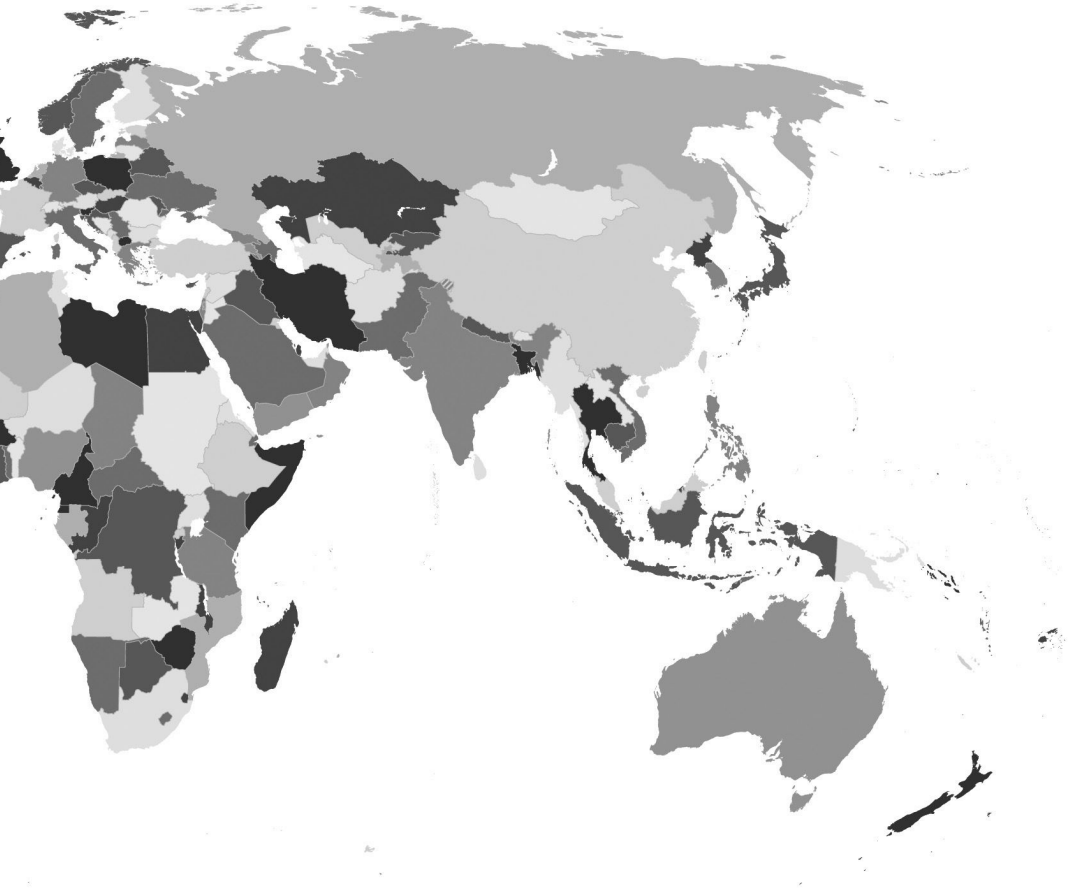
Ethics

FOR INTERNATIONAL MEDICINE

A PRACTICAL GUIDE FOR AID WORKERS IN DEVELOPING COUNTRIES

Anji E. Wall

DARTMOUTH COLLEGE PRESS Hanover, New Hampshire



Dartmouth College Press
An imprint of University Press of New England
www.upne.com

Manufactured in the United States of America
Typeset in Arnhem and Geogrotesque by Tseng Information Systems, Inc.
5 4 3 2 1

University Press of New England is a member of the
Green Press Initiative. The paper used in this book meets
their minimum requirement for recycled paper.

Library of Congress Cataloging-in-Publication Data
Wall, Anji E.
Ethics for international medicine : a practical guide for aid workers in
developing countries / Anji E. Wall.
p. cm.
Includes bibliographical references.
ISBN 978-1-61168-210-6 (pbk. : alk. paper) — ISBN 978-1-61168-252-6 (ebook)
I. Title.
[DNLM: 1. Medical Missions, Official—ethics—Case Reports. 2. Delivery of
Health Care—ethics—Case Reports. 3. Developing Countries—Case Reports.
4. Ethics, Medical—Case Reports. 5. Health Personnel—ethics—Case Reports.
6. World Health—Case Reports. W 323]
174.2—dc23 2011046301

To Monica

Contents

Acknowledgments

There are so many people who have been instrumental during my writing of this book. First, I would like to thank my mentor, Ana Iltis, for all of her support in this project. I would also like to thank the Saint Louis University faculty members who encouraged me to pursue publication, namely Jim DuBois and Sharon Frey. Thanks also to the anonymous readers of my first draft whose suggestions have made this book stronger.

This book would not have been possible without my family and friends. My parents, Jim and Anne Wall, my brother James, and his wife Jennifer have encouraged me through all of my academic endeavors. I am also blessed to have the support of my relatives: Deborah, Conor, Jack, Susie, Tina, Sarah, Eileen, John Paul, Preston, and Hunter. Finally, I could not have done this without my loving husband, John Watson. He is my best friend, my biggest supporter, and my favorite hurler.

Ethics for International Medicine

INTRODUCTION
Approaching Ethical Issues in International Medicine

A woman and child are brought to a small hospital staffed by medical aid workers in Afghanistan with injuries resulting from a suicide bombing at the market where they were shopping. They both have extensive injuries requiring blood products, emergency pharmacologic resuscitation, and surgery. Unfortunately, there is only one surgeon at the hospital. He is a general surgeon from the United States on a one-month medical mission. He must quickly make a decision about which patient to treat, knowing that the other will probably die without his intervention.

The surgeon in this case is faced with a very challenging decision, unlike any decision he has had to make in his home practice in the United States. The factors that complicate his decision include limited resources, limited facilities, and a lack of other health care workers. In addition, he is probably unfamiliar with the cultural values of these patients and does not speak their language. Without a method for addressing this and other ethical issues during his time in Afghanistan, the surgeon will have difficulty making decisions in these challenging situations.

As illustrated by this case, the ethical issues that medical aid workers experience in developing countries are often different from those they have encountered in their home practice. This book discusses how the context of international medicine creates unique clinical ethical issues. It provides a method for medical aid workers to use in addressing these ethical issues and then, in a series of case presentations of common ethical issues in international medicine, illustrates how the method can be used.

International Medicine

International medicine, broadly defined, is the provision of medical care outside of a practitioner's home country. Each year, countless physicians, residents, medical students, and other health care providers participate in international medical missions, mostly in developing countries. Removed from the luxury and familiarity of home, these medical aid workers give their time and expertise to help the sickest and most impoverished people in the world. They encounter patients who have different beliefs about disease, have different expectations for medical care, hold unfamiliar cultural and individual values, and subscribe to different legal and ethical norms. They are faced with significant limitations in medical personnel, infrastructure, and medical supplies. Moreover, medical aid workers have only a few weeks or months in the areas where they are serving, preventing them from developing long-term relationships with patients or providing continuity of care for patients with chronic medical conditions. Not only do these factors complicate the ability of medical aid workers to provide health care for patients in developing countries, but they also create or contribute to ethical issues that differ from those common in the developed world.

In this book, international medicine refers specifically to medical missions in which providers from developed countries participate in short-term medical aid work in developing countries. The cases in this book discuss ethical issues encountered by medical aid workers who are physicians, residents, or medical students. However, many of the case presentations, as well as the general approach to addressing ethical issues, are applicable to other medical aid workers, such as nurses and therapists, who do clinical work in developing countries.

The intended audience for this book is primarily physicians, residents, and medical students preparing to participate in medical aid work in the developing world. The cases are meant to introduce readers to ethical issues they may encounter, and provide analytic guidance. In addition, more-experienced medical aid workers can use this book to reflect on their experiences, improve their ability to address the ethical issues they encounter, and to teach new medical aid workers about clinical ethics for international medicine. The methodology and case studies may also serve as additional material for clinical ethics professionals, educators, and students.

The purpose of this book is twofold: to provide a method for approaching ethical issues in international medicine, and to illustrate how this method can be used to approach real-life cases. It is divided into an introduction and four chapters. The introduction explains a method for identifying, analyzing, and resolving ethical issues in international medicine. The method focuses on five essential elements of ethical issues in international medicine: medical facts, goals and values, norms, limitations, and stakeholders. After identifying these important elements in each case, the method follows with a systematic exploration and justification of options. The method is used throughout the remainder of the book to analyze the cases that are presented. Chapters 1 through 4 each focus on an essential element of ethical issues in international medicine: medical facts, goals and values, norms, and limitations. Because the identification of stakeholders does not contribute to or create ethical issues, this element is not the topic of a chapter. Rather, it is considered throughout all the chapters. Each chapter describes how the element creates or contributes to ethical issues in international medicine, discusses core topics in clinical ethics related to the element, and presents and analyzes cases that illustrate how the element contributes to common ethical problems in international medicine.

This book aims to illustrate the complexity of international medicine. The case presentations show how the context of international medicine creates a challenging environment for both the provision of health care and the resolution of ethical issues. The limitations and differences that medical aid workers encounter should not be seen as unconquerable barriers but rather as contributors to the complexity of international medicine. The purpose of this book is not to disparage international medicine by exposing the ethical issues that medical aid workers encounter, but rather to critically analyze these issues and provide a framework for medical aid workers to identify, analyze, and resolve them.

The Context of International Medicine

The context of international medicine is different from that of Western biomedicine (that is, allopathic medical practice in the developed world). The contextual features that dominate Western biomedicine are the abundance of technology and the legal environment of medical practice. Within this context, common ethical issues that arise include de-

cisions about withholding and withdrawing treatment, end-of-life care, transplant allocation, and disclosing genetic diagnoses.

The dominant contextual features of Western biomedicine are marginal if not absent in international medicine, because new technologies are often not available, and the legal environments of developing countries are generally not focused on litigation against medical practitioners. Instead, the context of international medicine is dominated by differences (for example, between medical aid workers and their patients or between local medical providers and medical aid workers) and limitations such as time, resources, facilities, and personnel. As demonstrated by the cases in this book, the unique contextual features of international medicine create ethical issues that are different from those commonly encountered in developed countries. In addition, the contextual features inform the way in which these issues should be analyzed and resolved. The following introduction develops a method for medical aid workers in developing countries to approach the ethical issues they encounter. It uses the contextual features of medical aid work in developing countries to build upon existing case analysis methods, creating a tailored approach for identifying, analyzing, and resolving ethical issues in international medicine.

What Is an Ethical Issue?

Before discussing ethics for international medicine, it is important to define a few terms. A moral dilemma occurs when an agent must determine whether or not to perform one action that has seemingly equal elements of right and wrong, or what action to perform when there is a choice of multiple, mutually exclusive actions that each appear to be obligatory. When a moral dilemma arises, the agent must make a choice about which action to pursue. If there are truly no alternatives to an action (including nonaction), then there is no dilemma, because there is no choice. Ethical issues arise when an agent or agents are faced with a moral dilemma and there is uncertainty or disagreement about which course of action to choose.

There are three basic types of moral dilemmas: volitional, cognitive, and social (DuBois 2008). When an agent has a volitional dilemma, he knows what the right action is, but is not sure if he will actually perform the action. Cognitive dilemmas are those in which the actor is unsure

about which action is the right choice. Social dilemmas occur in cases where there are multiple actors who disagree about what the right choice is. The ethical issues addressed in this book are focused on cognitive and social moral dilemmas.

Approaching Ethical Issues

Most physicians use a systematic approach to identify, analyze, and resolve medical problems. They gather data about each patient's present illness, medical history, past surgeries, current medications, family history, and social history. They continue to gather data through physical examination, laboratory testing, and imaging. Finally, they interpret results, make a diagnosis, and identify options for intervention.

Similarly, a systematic approach can be used for the identification, analysis, and resolution of ethical issues in clinical medicine. Several methods for approaching ethical issues in clinical medicine are available (Jonsen, Siegler, and Winslade 2010; Lo 2005). These methods provide systematic approaches that focus on the common features that create or contribute to ethical issues in Western biomedicine. While these approaches are theoretical in the sense that they have not been empirically tested, they are grounded in the context of Western biomedical ethics and are used widely by ethics consultants and committees. The method developed in this book builds on existing approaches by incorporating features unique to international medicine that create or contribute to ethical issues in this setting.

CASE ANALYSIS USING THE FIVE ESSENTIAL ELEMENTS

Ethical issues in clinical medicine arise in predictable ways. First, medical practice involves a myriad of people, including patients, their families, doctors, nurses, and therapists. Whenever a serious medical decision must be made, there are bound to be differences in the opinions, values, or goals of the stakeholders. When an ethical issue arises in international medicine, it is essential that all the important stakeholders are identified and consulted when appropriate. For example, medical aid workers may need to consult local medical personnel, other aid workers, family members of patients, or community leaders in order to gather the data that they need to adequately analyze and resolve ethical issues. Three common sources of ethical issues in clinical medicine are disagreements

or misunderstandings among stakeholders about medical facts; disagreements about goals and conflicts among stakeholders' values; and conflicts among ethical, legal, and professional norms (DuBois 2008). In international medicine, a fourth source or contributor to ethical issues is the limitations to the options available to medical aid workers and their patients: resources, personnel, infrastructure, and time often limit the choices that stakeholders have in international medicine. In summary, the five essential elements that should be explored when approaching every ethical issue in international medicine are stakeholders, medical facts, goals and values, norms, and limitations.

Tables 1.1 and 1.2 at the end of this chapter provide assessment questions that can be used to guide medical aid workers and other stakeholders through an exploration of each of the five essential elements of ethical issues in international medicine. When medical aid workers encounter ethical issues, they may find that not all of the assessment questions are relevant, or that they should ask additional questions about some of the elements. Just as a medical history can be tailored to address a specific medical problem (such as asking about birth history with a sick infant but not with an adult), the assessment questions can be tailored to address a specific ethical issue (for example, omitting questions about the effect that an acute traumatic insult has had on a patient's life). The following sections describe each of the essential elements of ethical issues in international medicine, describing how the context of international medicine affects these elements and discussing the questions that medical aid workers should ask themselves, patients, and other stakeholders when analyzing ethical issues.

Stakeholders

The first element that should be identified in every ethical issue in international medicine is the stakeholders. It is important to identify stakeholders so that their interpretations of medical facts, goals, values, norms, and limitations can be determined. Sometimes it is not possible or not necessary to actually interview stakeholders (for example, if they are not present or if society is identified as a stakeholder). In these situations the primary stakeholders can use Table 1.2 as a guide to identify what is known about the interests of these stakeholders without personally interviewing them. The assessment questions ask each stakeholder

if there are additional stakeholders important in the case so as to make sure that they are identified and consulted when appropriate.

Conflicts can occur among any of the stakeholders, creating or contributing to ethical issues. Commonly, disagreements or misunderstandings occur between patients and medical personnel. However, there can also be disagreements or misunderstandings among medical personnel. In international medicine, there is a greater chance of this happening because there are often two groups of medical personnel—aid workers and local medical personnel—who are caring for patients. When disagreements arise between these two groups, they must work toward a compromise, and if this cannot be achieved, they must determine who is ultimately in charge.

Medical Facts

It seems as though medical facts are just that—true, unambiguous statements about a patient's medical problem. However, as anyone who has been a patient, health care provider, or member of a health care team is well aware, patients, their families, physicians, nurses, medical students, social workers, and other stakeholders who are all involved in the same case often have different understandings, or lack a clear understanding, of the medical facts. These differences can damage trust if patients and their families hear different medical facts from different members of the health care team. They can lead to disagreements about treatment plans when each stakeholder forms an opinion based on different understandings of medical facts. Moreover, they can damage the process of informed consent when patients agree to procedures without understanding why they are consenting or what they are consenting to. In international medicine, several factors, namely language barriers, low health literacy, cultural differences, and different medical conditions, contribute to different understandings or lack of clarity regarding medical facts.

One of the most common differences between medical aid workers and their patients is language. Language barriers can frustrate communication during the short encounters between patients and medical aid workers (Bosenberg 2007; Sneag et al. 2007). Translators are often needed by medical aid workers to obtain information from patients. All too commonly, poor translation leads to inaccurate diagnosis and in-

appropriate interventions. This is of special concern given the fact that medical aid workers often serve for a limited time and thus are unable to follow up with patients to determine whether interventions were effective. Language barriers also contribute to misunderstandings among stakeholders about the medical facts. When faced with language barriers, medical aid workers must determine how much they can trust translated information that they get from patients. They must also determine how much they can trust the information being given to patients by translators. In addition to language barriers, patients often have limited education and low health literacy. Even with appropriate translation, patients may not fully understand what medical aid workers are telling them. Without understanding, they may take medications incorrectly, agree to procedures that are not consistent with their goals or values, or not be able to follow through with treatment plans.

Beyond language barriers and low health literacy, there are also cultural differences between medical aid workers and patients. Many patients in developing countries believe in a supernatural etiology of disease, such as sorcery or witchcraft (Baskind and Birbeck 2005; Ekortarl, Ndom, and Sacks 2007; Osborne 2006). These beliefs often influence the ways in which patients view disease and, more importantly, how patients adhere to treatment plans (Kleinman and Benson 2006). Medical aid workers cannot assume that patients are familiar with Western biomedicine, which is firmly grounded in the germ theory of disease, as they generally can in their practice in the developed world. They have to be prepared to encounter patients with vastly different cultures, to engage in conversations about their patients' beliefs about medical facts, and to negotiate treatment plans that do not conflict with their patients' cultural beliefs and values. Cultural beliefs can influence patients to perceive medical facts differently than the medical aid workers who are serving them.

The medical conditions of patients in developing countries also differ from those in the developed world. Many patients in developing countries have diseases such as tuberculosis, malaria, and intestinal parasites, which are infrequently seen in developed countries (Cappello, Gainer, and Adkisson 1995). Even when patients have familiar illnesses, they are often at more advanced stages of disease because they have little or no

access to health care in the absence of medical aid workers (Cappello, Gainer, and Adkisson 1995; Farmer 2007; Rinsky 2002). Moreover, malnutrition and poor general health often compound the primary diseases of patients in developing countries (Dupuis 2004; Farmer 2007). These factors are not only medically challenging but are also ethically challenging. Poor health and advanced disease increase the risks and decrease the potential benefits of some interventions (Dupuis 2004). Medical aid workers, therefore, cannot assume that the outcomes for interventions in developing countries will be comparable to the outcomes for the same interventions in developed countries. Different medical conditions may lead to uncertainty among medical aid workers about how best to treat their patients and, from an informed-consent perspective, how best to discuss the risks and benefits of interventions with patients.

The assessment questions about medical facts are designed for medical aid workers to gather information from all stakeholders. Because of language barriers, low health literacy among patients, and cultural differences between stakeholders, it is important to determine what each stakeholder believes about the medical facts. In addition, because of differences in medical conditions, it is important for the medical aid worker to assess what he or she knows about the patient's medical problem. The questions for medical aid workers clarify what is known about the medical condition, determine what treatment plans are possible, and ask about expected outcomes for possible interventions. The assessment questions for patients determine what they know about their condition, what they have done for treatment (for example, used a traditional healer), what they believe will happen to them because of their condition, and what they fear most about their medical problem. The assessment questions for other medical personnel are similar to those for medical aid workers, and the assessment questions for other stakeholders are similar to those for patients. The purpose of asking all stakeholders about the medical facts is to determine if there are areas of misunderstanding, lack of clarity, or different beliefs about these facts. If any of these issues exists, medical aid workers (and other stakeholders when appropriate) must determine how best to either clarify facts or address differences in stakeholder beliefs about the medical facts.

Goals and Values

A common source of disagreement among stakeholders faced with an ethical issue is the goal of the medical intervention. For example, a physician may aim for palliation, while a patient wants a cure. In international medicine, patients and physicians may have different expectations for medical care and different goals that reflect these expectations. Generally, in order for stakeholders to agree upon an option, they must first agree about the goal or goals of the intervention. The assessment questions about goals ask each stakeholder what his or her goal is for the intervention so as to determine whether or not disagreements exist. If disagreements do exist, stakeholders can work toward agreeing upon goals before determining which option to choose.

In addition to disagreements about goals, stakeholders may have conflicting individual or cultural values that create or contribute to ethical issues. The assessment questions about values ask stakeholders to identify their individual and cultural values. Stakeholders should then compare the identified values to determine whether or not they conflict with one another and if that conflict can be resolved. Often there are conflicts among values that cannot be fully resolved. In these cases, stakeholders should work together to minimize infringement upon values through negotiation and compromise.

Norms

Norms are the standards of behavior derived from established professional, ethical, and legal guidelines. When an ethical issue arises, there is often a conflict among norms, which serves as either the source of the issue or a contributing factor to the issue. In the United States, the norms governing bioethics are commonly described in terms of four principles, namely respect for autonomy; beneficence; nonmaleficence; and justice (Beauchamp and Childress 2001). Respect for autonomy requires that physicians give adequate information to patients and allow them to make medical decisions based on this information as well as their personal beliefs and values. Beneficence requires that physicians work to benefit their patients. It is practically applied when physicians and their patients identify the potential benefits and harms of a medical intervention in order to determine whether or not the intervention will

be sufficiently beneficial. Nonmaleficence requires that physicians and other medical personnel do not perform actions that exclusively cause harm to their patients. Finally, justice requires that the benefits and burdens of medical care are fairly distributed at a societal level. A valuable addition to these four principles in the setting of international medicine is the principle of relationality, which recognizes that relationships are important and should be respected (DuBois 2008). Throughout this book, bioethical norms are described in terms of these five principles. When actually analyzing ethical issues in international medicine, medical aid workers may find that their patients or other stakeholders are not familiar with these norms or describe ethical norms differently, requiring them to consider norms beyond the five principles or translate the identified norms into the language of the five principles.

Professional norms are the standards of medical practice. Medical aid workers, while familiar with standards of practice in their home countries, may not be aware of different standards in the areas where they are serving. Alternatively, they may become aware of different standards of practice that conflict with professional norms from their home country and be unsure about which norm should be followed. In these situations, medical aid workers have to determine which norms are the appropriate standards to follow.

Legal norms are especially complex in international medicine. Medical aid workers are often not familiar with the laws of the areas where they are serving, and they may break these laws unintentionally. They may also identify conflicts between local laws and international law that cannot be resolved. Alternatively, medical aid workers may find themselves in areas that are virtually legal vacuums, with no legal norms to use for guidance.

The assessment questions about norms ask all stakeholders to identify the professional, legal, and ethical norms that they believe are important. After gathering this data, stakeholders may find that there are conflicts between the identified norms. If there is a conflict, they should first determine whether or not it can be resolved. As with values, there are often conflicts among norms that cannot be resolved. In these cases, it is the job of stakeholders to minimize infringement on the identified norms through compromise and negotiation.

Limitations

The limitations faced by medical aid workers and their patients in developing countries are striking. Patients have limited access to health care. Medical aid workers have limited resources, facilities, and time to treat the countless patients who come to them for help. These limitations dictate the options available for intervention. When analyzing ethical issues in international medicine, it is important to thoroughly explore potential limitations so that feasible options for intervention can be identified.

Some of the most striking limitations encountered in international medicine are those resulting from the extent and severity of poverty among patients. People living in poverty do not have the financial means to access health care even when facilities are available (Mukherjee et al. 2006; Nijssen-Jordan 2007). Patients in poverty often have to choose between purchasing medications and purchasing food. In many cases, they are forced to forgo medications, which can lead to the development of drug resistance in diseases such as tuberculosis, AIDS, and cholera (Kim and Farmer 2006; Mukherjee et al. 2006; Okeke et al. 2007). When patients do receive appropriate care, their living conditions often make them vulnerable to contracting diseases all over again. For example, overcrowding encourages the spread of respiratory infections such as tuberculosis and pneumonia (Isturiz and Carbon 2000). Similarly, contaminated water increases the risk of acquiring many infections, including cholera and amebiasis (Cavagnaro, Guzman, and Harris 2006; Chaignat et al. 2008). Poverty and poor living conditions significantly limit the ability of medical aid workers to care for patients. It is therefore important that stakeholders identify the social, economic, and environmental factors that contribute to the poor health of their patients and limit possible interventions in order to identify realistic options for the resolution of ethical issues (DeCamp 2007; Dupuis 2004).

In addition to the limitations imposed by poverty and poor living conditions, medical aid workers have fewer resources to work with than they do in developed countries. Medications for treating common diseases including tuberculosis, malaria, and meningitis are chronically in short supply or not available at all (Anderson 2007; Buchman 2007; Goldring 2006; Holmes 1996; Won et al. 2006). Equipment considered standard in the developed world, such as blood-pressure cuffs and glucometers,

is not always available in clinics in developing countries (Braico 2007). Even paper on which to document patient care notes can be a limited resource (Patterson 2007; Won et al. 2006).

Limitations on medical resources are especially frustrating for surgeons. They often have to perform operations without preoperative imaging (Agrawal et al. 2007; Won et al. 2006). Moreover, equipment considered disposable in the developed world, such as drapes, laparotomy sponges, and endotracheal tubes, is often washed and reused in operating rooms in the developing world, increasing the potential for postoperative infections (Christman 2000; Patterson 2007). Steady electrical power supplies are not guaranteed, so surgeons must be prepared to operate under flashlights and without the ability to electronically monitor patients (Bosenberg 2007; Cappello, Gainer, and Adkisson 1995). Even after a successful operation, patients face significant obstacles to recovery. Resources for wound care are frequently unavailable in developing countries, so many postoperative patients die of simple infections (Berger 2006). Intensive care units for recovery are rare in developing countries, and those that do exist generally lack basic equipment such as ventilators and cardiac monitors (Abrams 1998; Clem and Green 1996). All these limitations increase the risks of morbidity and mortality of surgeries in international medicine, thereby changing the risk-benefit profile of these interventions (Bosenberg 2007).

Not only are medical resources limited in developing countries, but local medical personnel are also in short supply. Those who are available are often untrained or undertrained (Levin 2007; Nijssen-Jordan 2007; Pham and Tollefson 2007). This means that medical aid workers are often the most qualified general health care providers in the area where they are serving, even if they are specialists in their home countries. As such, they may be asked to perform interventions that are beyond the scope of their training because there is no one more qualified to intervene (Clem and Green 1996). In addition, because local medical personnel are in short supply, they may not be available to provide continued care to patients after medical aid workers leave.

The short-term nature of international medicine itself is a significant limitation. Medical aid workers serve for a finite period of time, usually weeks to months, leaving before all of their patients' medical problems have been addressed. They are unable to provide continuity of care and

follow-up monitoring, which are standard in developed countries. They often have to limit their interventions to those that can be achieved in one visit (Beitler, Junnila, and Meyer 2006). With extremely short missions, laboratory testing that takes more than a couple of days to complete is useless, because medical aid workers will be gone before the results are available (Won et al. 2006). Because medical aid workers often leave without following up with patients, they are unaware of the effectiveness of their interventions. They are also unaware of complications that arise after they have left (Robinson 2006). One problem with the lack of follow-up care is that medical aid workers cannot be held responsible for the outcomes of their interventions, and they do not have to deal with the consequences of their actions. They are not always present to see patients die of postoperative wound infections, have adverse reactions to medications, or develop drug-resistant diseases.

The overwhelming number of people in need of medical care compounds the issue of limited time. Medical aid workers often feel that they must see as many patients as possible or perform as many procedures as possible, thereby limiting the amount of time that they spend with each individual patient. This body-count mentality is often the only way to quantify the impact that medical aid workers have in an area, because they leave before outcomes can be measured (Dupuis 2004). Medical aid workers can therefore claim that they saw or treated so many patients, but they cannot say how many of these treatments were successful. By emphasizing the mass delivery of medical and surgical care, medical aid workers may lower the quality of care afforded to each patient. In addition, when medical aid workers perform large numbers of surgical procedures, they can easily overwhelm local medical personnel who bear the responsibility for providing postoperative care after medical aid workers have left (Yeow et al. 2002). In order to best serve patients, medical aid workers must find a balance between the quality and quantity of the health care they provide. They must determine how best to benefit each patient, as well as how best to benefit the community overall, given limitations in time, resources, personnel, and infrastructure.

Because medical aid workers and their patients face numerous limitations, these limitations should be identified whenever an ethical issue arises. The assessment questions ask all stakeholders to identify limitations that might affect the treatment options. Specifically, medical aid

workers are asked about limited time and resources. Patients are asked if there are treatment options that they would not be able to comply with and what the constraints are on their ability to comply with treatment options. Using these assessment questions, stakeholders can determine which options are realistic, given the limitations of the situation.

ANALYSIS AND JUSTIFICATION OF OPTIONS

After the medical aid worker and other stakeholders gather data about the essential elements of the ethical issue through assessment questions, the next step is to analyze and justify the options. To determine which option or options are possible, the medical aid worker (with other stakeholders when appropriate) should compare answers to the assessment questions in order to: (1) identify areas in which there is disagreement or different understandings about the situation (for example, medical facts, goals, values, norms); (2) identify the limitations to the options (for example, medication availability and patient access to medical care); and (3) determine if any of the identified options fit into the identified limitations.

Next, stakeholders should go through a process of justification for each option that they have identified as feasible. The five criteria that should be used to determine whether or not an option is justified—and in the case of multiple options, which is most justified—are effectiveness, proportionality, necessity, least infringement, and public justification (Childress et al. 2002). For an option to be effective, it must be likely to achieve the desired goal. An option is proportional when the expected benefits outweigh the level of infringement upon the identified values and norms. Necessity refers to whether or not infringement upon the identified values and norms is necessary to achieve the desired goal. When infringement is necessary, it should be minimized so as to achieve least infringement. Finally, public justification for the purpose of clinical ethics asks whether or not the stakeholders would be comfortable sharing their decision-making process with others in the community.

At the conclusion of this process, it is hoped that one option will be more justifiable than the others (that is, it has the most potential to achieve the goal, the least amount of infringement on norms and values, and falls within the limitations identified by stakeholders). However, this method, just like other methods for case analysis, is not guaranteed to

achieve a solution in every case. It is meant to be a guide for identifying the fundamental cause or causes of ethical problems in international medicine, determining the available options, and deciding which option is the most justified.

Applying the Approach

The method for identifying, analyzing, and resolving ethical issues in international medicine presented here builds on existing methods in clinical ethics and is grounded in the context of international medicine. It should serve as a guide for medical aid workers when they encounter ethical issues or encounter situations in which ethical issues are likely to occur. Throughout the remainder of the book, the method is used to analyze cases that represent common ethical issues in international medicine so as to illustrate how medical aid workers can apply it in real-life situations. This book is purposefully repetitive in using the full method to analyze every case. In providing complete analyses for each case, the book clearly illustrates the technique in a wide variety of situations, giving the reader a sense of how to broadly apply the methodology. In addition, each case can stand alone as a self-contained unit, so readers can choose to focus on those cases that are of most interest to them (for example, surgeons my choose to read only the surgery cases).

Table 1.1. Assessment Questions for the Medical Aid Worker and Patient

Category	*Medical Aid Worker Questions*	*Patient Questions*
Stakeholders	Is there local medical staff to consult about this case? Are there other important stakeholders who should be consulted?	Does anyone help you make medical decisions? Should anyone be told about your medical care?
Medical Facts	What is the patient's medical diagnosis? What are the most prominent symptoms? What is the cause of the patient's health problem? What can be done to treat this problem? What is the prognosis for this patient? What do you expect the outcome of treatment to be?	What do you call your medical problem? What effect has this problem had on your life? What is the cause of your medical problem? What have you done to treat this problem? Has this intervention been successful? Do you know what else can be done by a doctor to treat this problem? What do you think will happen to you because of this problem (if you get treatment and if you do not)? What do you fear about this medical problem? What do you fear about the treatment of this problem?
Values	What is your goal for medical intervention with this patient? What values are important to you in this case (individual, cultural)?	What is your goal for medical intervention in your condition? What values are important to you in this case (individual, cultural)?
Norms	What ethical norms are important in this case? What professional norms are important in this case? What legal norms are important in this case?	What ethical norms are important in this case? What professional norms are important in this case? What legal norms are important in this case?
Limitations	What constraints does time put on the treatment options? What constraints do limited medical resources put on the treatment options? Are there any other limitations to the treatment options?	Are there any treatment options that you would not be able to adhere to? Why? What are the constraints on your ability to adhere to treatment options? Are there any other limitations to the treatment options?

Source: This table is informed by DuBois (2008), Jonsen, Sigler, and Winslade (2010), Lo (2005), and Kleinman and Benson (2006).

Table 1.2. Assessment Questions for Medical Personnel and Other Stakeholders

Category	*Medical Personnel Questions*	*Other Stakeholder Questions*
Stakeholders	Are there additional stakeholders who should be consulted?	Are there additional stakeholders who should be consulted?
Medical Facts	What is the patient's medical diagnosis? What are the most prominent symptoms? What is the cause of the patient's health problem? What can be done to treat this problem? What is the prognosis for this patient? What do you expect the outcome of treatment to be?	What do you call the patient's medical problem? What effect has this problem had on your life? What is the cause of the patient's medical problem? Do you know what else can be done by a doctor to treat this problem? What do you think will happen to the patient because of this problem (if the patient gets treatment and if the patient does not)? What do you fear about this medical problem? What do you fear about the treatment of this problem?
Values	What is your goal for medical intervention with this patient? What values are important to you in this case (individual, cultural)?	What is your goal for medical intervention in the patient's condition? What values are important to you in this case (individual, cultural)?
Norms	What ethical norms are important in this case? What professional norms are important in this case? What legal norms are important in this case?	What ethical norms are important in this case? What professional norms are important in this case? What legal norms are important in this case?
Limitations	What constraints does time put on the treatment options? What constraints do limited medical resources put on the treatment options? Are there any other limitations to the treatment options?	Are there any treatment options that the patient would not be able to adhere to? Why? What are the constraints on the patient's ability to adhere to treatment options? Are there any other limitations to the treatment options?

Source: This table is informed by DuBois (2008), Jonsen, Sigler, and Winslade (2010), Lo (2005), and Kleinman and Benson (2006).

CHAPTER 1

Medical Facts

Medical facts are not always clear, unambiguous statements of the truth agreed upon by all stakeholders involved in a particular case. Rather, each stakeholder has his or her own perception of the medical facts, which is based on the information he or she has received, prior experience, and medical knowledge, among other factors. Oftentimes, when stakeholders do not agree or are unclear about the medical facts, ethical issues occur. For example, the family of a patient who is intubated after undergoing a major surgery may request to have the ventilator discontinued because the patient had expressed his desire not to be dependent upon machines for survival. The surgical team would undoubtedly disagree with the family's request, because the ventilator is an acute treatment that they will be able to safely discontinue when the patient is able to breath on his own. The lack of clarity about the purpose of the ventilator and the patient's expected course is the root cause of disagreement between the family and the surgical team in this case. If the stakeholders are able to identify different understandings about the medical facts as causes of their disagreement, then they can clarify these facts and come to a consensus about the best treatment plan.

Several contextual features of international medicine increase the frequency and severity of differences among stakeholders' perceptions of the medical facts. Medical aid workers encounter patients who have unfamiliar medical problems—either diseases that are not common in developed countries or conditions that are much further advanced than similar conditions in developed countries. In addition, medical aid workers almost always serve patients who speak a different language. They commonly rely on interpreters who do not have formal training in medical translation. Even when medical aid workers speak the same language as their patients, low health literacy can create a barrier to commu-

nication. Moreover, because many medical aid workers serve in cultures where people have spiritual interpretations of illness, there may be genuine disagreements between them and their patients or local practitioners about what the medical facts actually are. The cases presented in this chapter illustrate how these contextual features contribute to misunderstandings among stakeholders regarding medical facts and result in ethical issues. The case analyses demonstrate how medical aid workers can use the assessment questions as a tool to prevent ethical issues from arising, to identify ethical issues early, and to begin the process of addressing ethical issues that arise from misunderstandings or disagreements about the medical facts.

Different Medical Conditions

Medical aid workers commonly encounter patients with medical conditions that they are unfamiliar with or that are more advanced than what they see in the developed world (Farmer 2003; Graf 2003; Hennessy 2003; Leo 2003). Diseases that have been virtually eliminated in developed countries, such as malaria, tuberculosis, and dysentery, are rampant in developing countries (Tan-Alora and Lumitao 2001). In addition, conditions that are easily treated in developed countries are sometimes allowed to advance so far that standard treatments are more dangerous or ineffective. For example, Graf (2003) describes seeing patients with hernias the size of basketballs and uterine fibroids so large that women look pregnant.

Because medical aid workers serve patients with significantly different medical conditions from those common in developed countries, they often encounter medical problems that they have not been trained to treat. At the same time they are serving in areas of limited resources and high medical need, so patients may have no alternative options for receiving care. When faced with patients who have unfamiliar or very advanced medical conditions, medical aid workers must determine whether they have the knowledge and skills appropriate to treat these patients. They must realistically consider alternatives for intervention, especially the option of not intervening, balancing the risks and potential benefits of each option. In addition, medical aid workers should keep in mind that they have a limited ability to follow up with patients and try to avoid treatments or interventions that require this. The following case

illustrates one situation in which a medical aid worker realizes that he is not prepared to treat the patients whom he encounters.

Case 1.1: Vesico-Vaginal Fistula Repair Surgery

A urogynecologist from the United States decides to go on a two-week medical mission to Ghana with a group of physicians to perform vesico-vaginal fistula repair surgeries. The urogynecologist has performed hundreds of post-hysterectomy vesico-vaginal fistula repair surgeries in the United States, and the other group members are similarly experienced.[1]

The area of Ghana where the group goes has staggering maternal and infant mortality rates because obstetric care is virtually nonexistent. There are many women in the area, particularly young women in their teens and early twenties, who have survived complicated pregnancies and now suffer from vesico-vaginal fistulae as a result of prolonged obstructed labor. Most of these women have been cast out of their communities or have left voluntarily because the urinary incontinence that results from vesico-vaginal fistulae is embarrassing and produces a foul odor.

The day that the group arrives, hundreds of women line up for evaluation. Some of the women have been living with vesico-vaginal fistulae for years and are desperate to have their problem fixed so that they can return to their communities and their families. Because of the overwhelming need, the team sets a goal of 10 surgeries per day for the remaining thirteen days, or 130 surgeries total. They base this goal on the time that it generally takes the physicians to perform routine post-hysterectomy vesico-vaginal fistula repairs in the United States.

On the second day of the mission, the urogynecologist arrives at the hospital early to prepare for the first surgery. His patient is a twenty-year-old woman who developed a vesico-vaginal fistula as a result of prolonged, obstructed labor during her first pregnancy three years ago. The fetus did not survive, and her husband left her soon after because of her incontinence. The urogynecologist begins the procedure, confident that it will be relatively uncomplicated. However, when he finds the fistula, it is surrounded by extensive dense scar tissue that most likely resulted from necrosis caused by the fetal head pushing against the pelvis during labor. The urogynecologist does what he can to close the fistula, but with the extensive scar tissue and the limited resources he has to work with, he is not confident that the closure will be successful long term.

After the procedure, the urogynecologist asks the other medical aid workers if they had experienced similar difficulties, which they all had. None of the physicians had expected these difficulties, and they are all inexperienced in dealing with extensive scarring around the vesico-vaginal fistulae. Several have suggestions about how best to perform the procedure, given the surrounding scar tissue, but these suggestions are based on speculation rather than evidence or experience. The urogynecologist, aware that he is not fully competent to perform vesico-vaginal fistula repairs on women with extensive scar tissue, wonders if he should continue with the surgeries, doing the best that he can with his level of training and the resources that are available.

CASE ANALYSIS

Stakeholders

The urogynecologist in this case must determine whether or not he should continue doing vesico-vaginal fistula repair surgeries given that they are more complicated than he had expected. Because there are many stakeholders in this case, namely the urogynecologist, the other medical aid workers, local medical personnel, and the women who have vesico-vaginal fistulae, it would be impossible for the urogynecologist to ask each individual the analysis questions. Rather, he could begin by answering the questions himself, asking a few other medical aid workers, and asking local medical personnel if available. Local medical personnel are a great resource because they can give both their own perspective and the general perspective of the women. This analysis focuses on the urogynecologist, but considers the other stakeholders where appropriate. While this chapter concentrates on misunderstandings or disagreements about medical facts as the source of ethical issues, each case analysis explores the five essential elements of ethical issues to illustrate how they affect the identification and justification of options.

Medical Facts

This case illustrates a common scenario in international medicine: a medical aid worker encounters patients who have more-complex medical conditions than he is accustomed to treating. From the perspective of the urogynecologist, several medical facts are clear. The women have vesico-vaginal fistulae, caused by prolonged, obstructed labor. Their

most prominent symptom is urinary incontinence. In developed countries, this condition can be managed with adult diapers if an operation cannot be done or is not desired by patients. However, the definitive treatment for this condition is surgical repair. The urogynecologist is not sure about how best to perform the operation, given the extensive scar tissue surrounding the fistulae. In addition, he is not confident that the operations will be successful long term. While this case does not provide details about the women's understanding of their condition, it is clear that it has significantly affected their lives, causing them to be cast out of their families and communities, and that without successful treatment, they will continue to be outcasts.

Goals and Values

All of the stakeholders agree that the goal of the surgeries is to provide the women with definitive repairs of their vesico-vaginal fistulae. The individual and cultural values of the stakeholders are not explicitly stated in this case. However, the urogynecologist likely values his ability to improve the lives of his patients through surgical intervention. The women clearly value the ability to return to their families and communities.

Norms

The bioethical norms central to this case are nonmaleficence, beneficence, and relationality. Nonmaleficence requires that physicians do not perform procedures or provide treatments that exclusively cause harm to patients. The vesico-vaginal fistula repairs would be harmful if the women were subjected to the risks of surgery without the possibility of successful repair. If there is a potential for successful repair, then the norm of beneficence becomes important. Beneficence requires that the potential benefits and risks of an intervention are appropriately balanced. While the urogynecologist is able to accurately determine the risks and benefits of post-hysterectomy vesico-vaginal fistula repairs, the obstetric vesico-vaginal fistula repairs do not have a well-defined risk-benefit profile. Therefore, he cannot confidently predict the likelihood of harm versus successful repair.

The norm of relationality, which states that relationships are important and should be respected, explains the women's motivation for wanting operative intervention. The women's relationships with their families

and communities have been disrupted because of the fistulae. The only way that the women will be able to return to these important relationships is if they have successful repairs.

The professional norm central to this case is competence. Medical professionals are expected to only perform procedures that they are competent to do. The urogynecologist is not confident that his training in the developed world has prepared him adequately for the type of fistula repair surgery that he has to perform on these women. At the same time, he is not in a position to refer the women to a more competent provider, as he would be able to do in the United States. Therefore, he must decide if he is competent enough to perform the operations.

The legal norm that would be applicable in this case, if it were in the United States, is the question of whether or not performing these interventions would constitute medical malpractice. Medical malpractice occurs when a physician fails to provide the quality of care required by the law and that failure results in injury to the patient (Furrow et al. 2001, 165). For a medical practitioner to be found guilty of medical malpractice, four elements must be proven: a duty was owed, the duty was breached, the breach caused an injury, and damages occurred. In this case, the surgeries are elective rather than emergent, so a duty is only owed to patients whom the urogynecologist accepts for operative intervention. The duty would be breached if the urogynecologist failed to comply with the accepted standard of care, which is not clearly defined. If patients sustain injury because of a breach in duty, then the urogynecologist would be liable for damages under the law in the United States. While the legal concern of medical malpractice can be an important factor in surgical decision making in the developed world, it is often ignored in international medicine because patients do not generally sue medical aid workers. However, medical aid workers should still consider whether their actions would constitute medical malpractice in their home countries as a guide for appropriate decision making.

Limitations

There are several limitations in this case. As already discussed, the medical aid workers have limited experience doing fistula repair operations on women with extensive scar tissue. In addition, the clinic where they are doing the operations has limited resources. Because the medical

aid workers did not realize that the operations would be so complex, they did not bring additional supplies to help with the repairs. Moreover, the group is in Ghana for only two weeks, meaning that its members will not be physically present to monitor the long-term outcomes of their interventions. This means that they will not be able to provide revisions if the fistula repairs break down.

The women are limited in their options for fistula repair. They cannot afford to pay for an operation, so they must rely on medical aid workers to provide them free of charge. Moreover, because they are outcasts from their communities and have no source of income, the women would not be able to afford to buy adult diapers even if they were readily available, so this is not a viable alternative to surgical repair.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The two options for the urogynecologist are to offer operative intervention or not to offer operative intervention. Either of these options is feasible, given the identified limitations, so the justification criteria can be used to determine whether one option should be chosen over the other.

The first step in justification is to determine whether the options will be effective in achieving the goal, which is to repair the women's vesicovaginal fistulae. Operative intervention may be effective in achieving this goal, although the chance of a successful long-term repair is unknown. Not performing an operation will not be effective in repairing the fistulae. Therefore, only one of the two options has the potential to be effective in achieving the goal, but the likelihood of success is unknown.

The next step in justification is to determine if the benefits of the option outweigh its infringement on the identified norms and values. The option of operative intervention has the potential to infringe on the bioethical norms of nonmaleficence and beneficence. If the operative intervention is ineffective in achieving the goal of fistula repair, then it would infringe on the norm of nonmaleficence because it would subject patients to significant risks without any benefits. If operative intervention has a reasonable chance of being effective, then the stakeholders would have to determine whether or not this is consistent with the principle of beneficence. The operations have the potential benefit of correcting the fistulae and allowing the women to be reunited with their

families. However, the risks include failure to correct the fistulae, increased scarring so that future procedures are more complicated, infection, bleeding, and the risks of anesthesia. If the operations are significantly different from and more complex than those the urogynecologist has performed at home, then there may only be a small chance that the women will benefit, but an increased risk of harm resulting from operative intervention. If the operations are not significantly different and the urogynecologist judges that there is a high likelihood of success, then the benefits would likely outweigh the risks. In addition to potentially infringing on bioethical norms, the option of operative intervention may infringe on the professional norm of providing competent care because the medical aid workers have a limited scope of experience in obstetric vesico-vaginal fistula repairs. In addition, the medical aid workers might cross the legal boundary of medical malpractice if these procedures do not adhere to the standard of care and cause injury to patients.

The option of not doing the operations has the potential to infringe on the bioethical norms of beneficence and relationality. If the risk-benefit profile of the operations is acceptable, then not doing them fails to maximize the benefits and minimize harm to patients. In addition, because this option leaves the women with vesico-vaginal fistulae, they will not be able to return to their communities and families to re-form the relationships that have been severed by their condition. If the urogynecologist chooses this option because he is not comfortable performing the operations, then it is consistent with the professional norm of competence. In addition, this option would not infringe on the legal norm of medical malpractice, because the elective nature of these procedures means that the urogynecologist does not have a duty to perform operative interventions.

The next step in the justification of the options is to determine whether the options must necessarily infringe on identified norms and values. If operative intervention has an acceptable risk-benefit profile, a reasonable chance of success, and the medical aid workers are comfortable with their level of competence, then this option would not necessarily infringe on any of the norms and values. The option of not operating necessarily infringes on the norm of relationality in the sense that it does not have the potential to allow the women to return to their families and commu-

nities. However, if the likelihood of successful operative intervention is very low, they may be denied this opportunity either way.

The next step in justifying the options is to determine how to minimize infringement on the identified norms and values. Both options have the potential to infringe on the ethical norm of beneficence. The choice of operative intervention infringes on beneficence if the risks are significantly greater than the potential benefits. In order to minimize the risks of the procedures, the medical aid workers could decrease the number of operations that they plan to do, so as to spend more time doing each procedure. While not applicable in this case, medical aid workers planning surgical missions could communicate with previous volunteer groups or local medical personnel to determine what differences they should expect to encounter so as to prepare to manage these differences. The option of not doing the operations would infringe on beneficence if the benefits of the procedure outweigh the risks. If there is a question about the appropriate balance of risks and benefits, it would be important to ask the women about their willingness to accept these risks, given the low likelihood of success versus the alternative of not having the procedure done.

Finally, stakeholders should determine whether they are comfortable sharing their decision-making process with others. If the urogynecologist is realistic about the potential benefits, risks, and limitations of each option, he should be comfortable sharing his reasoning with others. In addition, after he has considered his position, it would be important to share his opinions with the other stakeholders, particularly other medical aid workers, local medical personnel, and some of the women, to determine whether or not they agree with his analysis, before he makes a final decision about whether to continue operating.

In this case, either option may be justified, depending upon the risks and benefits of the procedures and the competence of the medical aid workers. If the risks of the procedures are not significantly increased, the potential for benefit is acceptable, and there is a plan for transfer of care and appropriate follow-up with local medical personnel after the group leaves, then the urogynecologist would be justified in continuing to offer operative intervention. On the other hand, if the stakeholders determine that the risks are too significant and the potential for benefit is

too low, then the group should not continue doing the operations. While it is hard to travel to a developing country with the intention of providing meaningful interventions for desperately needy patients and then decide not to perform the intended procedures, it is important that medical aid workers consider this an option, especially with elective procedures, because providing substandard interventions can leave patients worse off.

CASE COMMENTARY

Even though medical aid workers have been extensively trained in the developed world, they may encounter patients with unfamiliar conditions or complications in developing countries. While medical aid workers may have a desire to intervene in these situations, they should assess their own limitations as well as the risks and potential benefits of the procedures that they are planning. It is especially hard to decide not to intervene when faced with desperate patients who have no alternative options. However, it is important that medical aid workers are aware that their interventions may leave patients worse off than they were before the intervention, and that they make decisions based on this consideration. Doing something is not always better than doing nothing during medical aid missions, especially when the intervention has the potential to result in significant harm to patients. It is important that medical aid workers do not adopt the attitude that any care is better than no care at all, and that they are able to exercise prudent decision-making, even when confronted with patients who have no other alternatives.

Language Differences

Language differences often contribute to misunderstandings about medical facts in international medicine (Cappello, Gainer, and Adkisson 1995; Ozao 2007; Sechriest and Lhowe 2008). Language barriers can lead to time-consuming patient visits and impede the collection of patient medical history (Albrecht 1992; Won et al. 2006). Moreover, poor translation may have serious effects on patient care. For example, one medical aid worker showed videotapes of interactions between medical aid workers and Haitian patients to a couple of Haitian doctors, who informed him that the translation was not good and they had misdiagnosed several patients as a result (Grindeland 2003). The following case

illustrates how ethical issues can arise in the setting of language barriers in international medicine.

Case 1.2: Informed Consent for Tubal Ligation Surgery

A young woman, her husband, and their two small children visit a gynecology clinic in Guatemala. Through an interpreter, the husband tells the medical aid worker that his wife wants to have tubal ligation surgery. The medical aid worker explains the procedure to the couple through the interpreter and asks if they have any questions. The husband says that he understands the explanation. To make sure that they appreciate the outcome of the procedure, the gynecologist asks the interpreter to make sure that they understand that the woman will not be able to have children as a result of this surgery. The husband tells the interpreter that they understand this, and the wife nods in agreement.[2]

The gynecologist successfully performs the tubal ligation procedure. When the woman wakes up from the operation, the gynecologist speaks with her through a different interpreter. She tells the gynecologist that she is happy that the operation was successful because now she does not have to worry about having more children. She goes on to explain that only one of her breasts produces milk, and she does not have the money to buy the supplemental formula that would be needed if she had another child. It is clear from this explanation that the woman decided to have the procedure not because she did not want to have any more children, but because she did not think that she could afford to have another child and believed that this procedure was the only solution.

CASE ANALYSIS

In this case, while the medical aid worker sought informed consent from the couple for the tubal ligation, he did not explore the reasons why they wanted to have the procedure done or the alternative options that they may have had for achieving their goals. The use of the translator may have hindered the medical aid worker's ability to explore the reasons for the procedure and the alternative options. However, had the aid medical worker taken additional time and used the assessment questions for identifying ethical issues, he would have elicited the couple's understanding of the medical facts and presented them with alternative

options. This case analysis illustrates how the assessment questions can be used prophylactically when ethical issues are likely to occur, either to identify them early or prevent them altogether.

Stakeholders

The primary stakeholders in this case are the patient, her immediate family, and the medical aid worker. The translator is also a stakeholder. Other stakeholders may include the patient's extended family, her religious community, and local medical personnel.

Medical Facts

The medical aid worker's initial understanding of the medical facts is that the couple want the tubal ligation because they do not want more children. While the woman does not have a medical problem per se, she desires permanent sterility, and the medical aid worker is confident that tubal ligation will be effective in achieving this goal. The medical facts according to the couple tell a different story. The woman's primary problem is that she cannot produce milk with one of her breasts. The effect that this problem has had on their lives is that they fear having another child because the woman would be unable to provide adequate nutrition for an infant and they cannot afford to supplement with formula. From the case, it is unclear whether or not she has tried anything to treat this problem, but if she has, nothing has been successful. She and her husband believe that her problem can be treated with a procedure for permanent sterility because they will not have to worry about having more children. If she does not have the tubal ligation, she risks having another child, which the couple will be unable to support. By exploring the couple's understanding of the medical facts, the medical aid worker would have identified the woman's reason for desiring a tubal ligation and been able to discuss alternative options. In addition, he could have discussed milk production with them.[3]

Goals and Values

Both the physician and the couple share the goal of making the woman sterile, although the couple's reasons for wanting this is not just that they do not want more children—it is that they cannot afford to have more children. The couple value the ability to provide for their children and

believe that tubal ligation is the way in which they can ensure that they are able to do this.

Norms

The two bioethical norms important in this case are respect for autonomy and relationality. In developed countries, the process of informed consent is the primary way in which physicians respect the autonomy of patients in making decisions about medical care. It is not only an ethical imperative, but also a legal imperative in the United States (Berg and Appelbaum 2001). There are five components required to achieve full informed consent: competence, disclosure, understanding, voluntariness, and consent (Beauchamp and Childress 2001). In this case, the medical aid worker did not thoroughly explore the couple's understanding of the medical facts during the informed-consent process. Because of this, he was unable to identify alternatives to the procedure that may have been more desirable to the couple or to discuss the benefits and risks of these alternatives.

The norm of relationality is central to the couple's decision to seek a tubal ligation. The couple identify the obligation to provide for their children as important. They already have two children that they must provide for and are afraid that they will not be able to fulfill these obligations if they have another child, especially given the woman's inability to produce milk with one of her breasts.

Limitations

Because the medical aid worker did not discuss alternatives to tubal ligation with the couple, specific limitations to other treatment options are not clear in this case. In general, alternative ways to achieve the goal of contraception include condoms, oral contraceptive pills, hormone injections, hormone patches, implantable devices, and intrauterine devices. In addition, vasectomy is an alternative option for permanent sterility. One of these alternatives might be available and more desirable for the couple. If the couple express an interest in a different form of contraception, the medical aid worker would have to determine if that option is available and practical given resource limitations and the couple's ability to access available resources. For example, the couple may not be able to afford oral contraceptive pills, or the clinic may not have a stable supply

of them. Alternatively, trained medical personnel may not be readily available to remove or replace implantable devices.

ANALYSIS AND JUSTIFICATION OF OPTIONS

Because the medical aid worker did not discuss alternatives to tubal ligation in this case, it is not clear whether alternative forms of birth control are available or desirable. After the medical aid worker establishes the couple's reasoning for seeking tubal ligation surgery, it is important to determine what options for contraception are available and discuss them with the couple. The couple may prefer a temporary method of birth control that will allow them to have children in the future. Alternatively, they may determine that the woman is actually producing enough milk for the infant, and decide that they do not want to use birth control because they want more children soon. The justification process for this case compares the potential options of tubal ligation, temporary contraceptive methods, and no contraception. Vasectomy is not discussed because it would be an alternative to tubal ligation as a permanent form of contraception. For the purpose of this analysis, it can be considered in the same discussion as tubal ligation.

The first step in justification is to determine the effectiveness of the option with respect to the goal. In this case, the medical aid worker and the couple must clarify the goal in order to determine the effectiveness of the options. If the couple does not want to have any more children, then tubal ligation would be the most effective option. If the couple wants to have the option of having children in the future, then a temporary form of birth control would be effective. If the couple wants to have more children soon, then not using contraception would be the most effective option.

The next steps in the justification process are to determine if infringement on values and norms is proportional, necessary, and minimized. To achieve proportionality, the benefits of the option must outweigh its infringement on values and norms. In giving the couple a choice between alternatives, the process will not infringe on the norm of autonomy identified as important by the medical aid worker, regardless of what option is chosen. However, infringement on norms and values may occur if the options are significantly limited. For example, if there are no temporary forms of contraception available (other than the rhythm method), then

the couple would have to choose between tubal ligation or natural birth control. Tubal ligation would infringe on their desire to have children in the future (if this is a desire of theirs), while natural birth control may lead to their having more children before they are ready, infringing on their obligations to their other children. Depending on the available options, some level of infringement on values or norms may be necessary. If infringement is necessary, the stakeholders should determine if it has been minimized, and if not, how it can be minimized.

The final step in justification is to determine whether the stakeholders would be comfortable sharing their decision-making process with others. If the medical aid worker and the couple have an open discussion about tubal ligation versus alternative options, they should be comfortable sharing this process with others.

CASE COMMENTARY

This case illustrates the importance of the process of obtaining informed consent for procedures (especially those with significant consequences) during medical aid work in developing countries. It also shows that a medical aid worker's assumptions about a patient's reasons for desiring a procedure may not be correct, so eliciting this reasoning is important for determining if alternative options are more desirable.

If the medical aid worker had used the assessment questions during the informed-consent process, he may have better understood the couple's situation and provided them with alternative options. Not only are the assessment questions helpful in exploring ethical issues after they have arisen, but they also have the potential to prevent ethical problems from occurring or at least to identify ethical problems early in the patient encounter so that they can be addressed and minimized. While certain aspects of international medicine create barriers to informed consent (for example, language differences, cultural differences, time limitations), it is important that medical aid workers try to overcome or minimize these barriers in order to avoid situations like the one described in this case. Taking additional time to explore patients' understanding of the medical facts, their values, and their goals for procedures will help ensure that these patients choose interventions that are consistent with their goals and values.

Communication Barriers

Even when medical aid workers can speak the same language as their patients, miscommunication may still occur. Often, medical terms cannot be translated into the local language, so medical aid workers have trouble accurately explaining medical problems or procedures to patients. When medical aid workers are able to use appropriate terms, low health literacy among patients can still lead to misunderstandings. The following case illustrates a situation in which a misunderstanding results in a tragic outcome, which is complicated by further misunderstanding.

Case 1.3: Fall from a Mango Tree

A twelve-year-old Somali boy presents to a clinic staffed by medical aid workers after falling from a mango tree. The trauma surgeon at the clinic, who has been in Somalia for nine months and can speak the Somali language, examines the boy and finds that he has a broken leg. She explains to the boy that he has a broken leg and that he will need to have it casted. The boy nods in understanding and allows her to cast his leg. Afterward, the surgeon tells him to come back to the clinic in ten days to have his leg evaluated again, or to come back to the clinic immediately if he is in significant pain.[4]

Ten days later, the boy returns to the clinic in agony, accompanied by his mother. The surgeon removes the cast to find that the underlying tissue is dead and the boy's leg has become infected. She tries to explain to the boy and his mother that the cast cut off the boy's circulation and the tissue in his lower leg is now dead because of the lack of blood supply. The trauma surgeon believes that amputation is both necessary and urgent. She is concerned that, without amputation, the infection will get into his bloodstream, leading to sepsis and possible death. The mother thanks the medical aid worker for her help. She says that they are happy that the boy's cast is off and that they do not want to have anything else done to the leg because the boy needs to go back to his job of picking mangoes to sell at the market. The trauma surgeon wonders if she can better explain the necessity of the procedure to the mother, and, if the mother continues to refuse, whether she would be justified in doing the procedure anyway.

CASE ANALYSIS

In this case, the medical aid worker has learned that while she is able to speak the language, she is unable to communicate effectively with the patient and his mother. Obviously the boy did not understand that he should have come back to the clinic earlier when he was in pain, or he was not aware of the consequences of waiting to return to the clinic. Now that he needs the amputation, the medical aid worker cannot seem to adequately explain this to the mother. In this case, the assessment questions will help the medical aid worker establish a baseline for what the patient and his mother understand. She can use this knowledge to help her communicate with the patient and his mother so as to improve their understanding of the situation. In addition, she can explore their goals and values so as to provide an intervention consistent with them.

Stakeholders

The boy, his mother, and the trauma surgeon are the primary stakeholders in this case. Additional important stakeholders are the rest of the boy's family as well as the other medical aid workers at the clinic. In addition, the entire community may become involved in this case if the physician decides to act against the wishes of the mother.

Medical Facts

From the perspective of the trauma surgeon, the medical facts are straightforward. The boy has a necrotic, infected lower leg. His primary symptom is pain, and the leg is clearly infected, which could lead to sepsis and death. This medical problem resulted from the cast being too tight. Unfortunately, the only medically appropriate treatment in this case is amputation of the lower leg. Because the boy has suffered an ischemic injury and the leg is already infected, an attempt to medically manage the boy is a poor alternative to amputation, because the infection will undoubtedly spread, requiring a more extensive amputation in the future.

The mother's understanding of the medical facts is less clear. She understands that the boy had a broken leg, which needed a cast, and that the cast has been removed. The effect that the problem has had on their lives is that the boy has been unable to pick mangoes. Now that the cast has been removed, the mother believes that the boy does not need

any further treatment and that he can return to picking mangoes. She does not realize that the cast itself actually caused an additional serious medical problem that needs to be addressed. She does not believe that treatment is necessary and thinks that the boy is now better because the cast has been removed.

Goals and Values

The goal of the trauma surgeon is to treat the boy's infected leg so as to prevent him from progressing to life-threatening sepsis. She values correcting the complication that resulted from the cast being too tight. The goal of the patient and his mother is for the child to return to picking mangoes immediately. They value the boy's ability to contribute to his family.

In addition to their personal values, the patient and his mother may have religious or cultural beliefs that do not allow for amputation. It is important for the trauma surgeon to consider this possibility and explore their beliefs so as to determine what amputation would mean to the boy and his family in a spiritual or religious sense. If this is an issue, the trauma surgeon might consider consulting with a religious leader to clarify what these beliefs mean and whether or not amputation is possible within their religious tradition.

Norms

The two bioethical norms important to the trauma surgeon are nonmaleficence and beneficence. Because the boy has a high likelihood of progressing to sepsis, which could be lethal, it would be harmful to refrain from the amputation. In addition, there would be no benefit to waiting and watching the boy's progress, because the natural history of this type of complication is that it will become worse and require a more extensive amputation. The treatment option that best maximizes the benefits and minimizes harm in the opinion of the trauma surgeon is an immediate amputation. This will lessen the risks of the infection spreading and requiring a more extensive amputation or causing potentially lethal sepsis.

The two bioethical norms important to the mother and boy in this case are relationality and respect for autonomy. The boy has an important relationship with his family, and his ability to contribute to his

family through his job of picking mangoes is a very important aspect of this relationship. In pediatric medicine, respect for autonomy is generally accomplished by allowing parents to consent to procedures and treatments for their children, along with allowing children who are of appropriate capacity to assent. In refusing to have the child's foot amputated, the mother is asserting her right to make decisions regarding the medical care of her son. She does not think that the operation is necessary and is making a decision based on their need for him to return to picking mangoes.

The attitude of the trauma surgeon illustrates a phenomenon similar to that of surgical buy-in, in which the surgeon negotiates a commitment to postoperative care with patients before high-risk surgical procedures (Schwarze, Bradley, and Brasel 2011). While casting a leg is not a high-risk surgical procedure, it does have serious risks, as illustrated in this case. The trauma surgeon believes that she has a commitment to treat the boy's necrotic leg because the complication is a direct result of casting. In deciding to cast the boy's leg, the surgeon has committed herself to treating any complications resulting from this procedure.

The legal norm central to this case is the right of parents to make decisions regarding the care of their children. In the United States, parents are given a good deal of autonomy in making medical decisions for their children. However, there is legal precedent for superseding the decisions of parents in certain situations. Generally, when the child has a life-threatening condition and parents refuse the medically accepted standard of care, they can be found guilty of abuse or neglect, or homicide in the case of the child's death (Cohen and Kemper 2005). If physicians in the United States believe that parents are making medical decisions that put the child's life at risk, they can get a court order to allow them to treat the child without parental consent. In this case, it would be important for the trauma surgeon to determine whether or not there is a legal mechanism for proceeding with the amputation if the mother continues to refuse treatment.

Limitations

From the perspective of the trauma surgeon, time and medical resources are not limitations to being able to provide appropriate treatment for the boy. One limitation that the trauma surgeon should con-

sider is the state of the operating room. In general, operating rooms in developing countries are less sterile than in the developed world. If the operating room or the instruments that will be used are not adequately sterilized, the risk of postoperative infection is increased. Therefore, the boy may still be at significant risk of subsequent infection requiring further operations or inpatient intravenous antibiotic treatment even after a successful amputation. In addition, the postoperative care may not be the same as that available in developed countries. For example, the clinic may not have adequate antibiotics to treat postoperative infections when they occur, or it may not have an adequate supply of dressings, thereby limiting the number of dressing changes that can be done to keep the wound clean. These limitations may significantly change the risk-benefit profile of the amputation, making it less desirable even if it still seems necessary.

Because the mother refused the amputation, it is not clear whether the boy and his family have limitations that would affect their ability to go through with an operation. While the operation itself would not take a considerable amount of time, the boy's recovery would require an inpatient stay, as well as physical therapy to teach him how to live with one leg and to provide him with a prosthetic leg if available. The family may not be able to afford this type of care and would have to rely on the clinic to provide it free of charge. In addition, the mother makes it clear that they need the boy to return to work, so they may not even be able to afford to have the boy out of work during the time it takes for him to recover. Unfortunately, even with the amputation, the boy will not return to his baseline state of health and may never be able to climb mango trees again.

ANALYSIS AND JUSTIFICATION OF OPTIONS

At this point in the case, the most appropriate option is to use the mother's answers to the assessment questions to continue communication about the boy's condition and his need for urgent surgical intervention. If possible, the medical aid worker should bring in local medical workers, translators, or community elders to help the mother understand the situation. Ideally, additional communication and negotiation will help the mother understand the medical facts and the need for intervention so that she will consent to the amputation. However, she may

continue to refuse intervention. If this is the case, the trauma surgeon is faced with a very challenging situation. She is left with the option of not doing the operation, putting the boy at risk of more extensive infection, sepsis, and even death, or of doing the operation against the wishes of the mother. The justification of these two options is explored in the following section.

The first step in justification is to determine whether the option will be effective in reaching the identified goals of the stakeholders. The goal of the trauma surgeon is to prevent the boy from developing more-serious complications from his infected, necrotic leg. The option of doing an operation has a greater likelihood of being successful with respect to this goal as compared with not doing an operation. However, if the operating room is in poor condition, the boy may still be at high risk of subsequent infection, requiring further operative interventions. The goal of the mother is for the boy to return to picking mangoes. Amputating the boy's leg will seriously limit his ability to climb mango trees, so he may not be able to return to his work following the operation. Not doing the operation may allow the boy to return to work immediately, but he might be hindered by pain and limited use of the leg. In addition, he could become seriously ill and require a more extensive operation if one is not done immediately. Therefore, the option of doing an operation is more consistent with the goal of the trauma surgeon, while neither of the options has a high likelihood of achieving the mother's specific goal of having the boy return to work immediately.

The next step in justification is to determine if the benefits of the option outweigh its infringement on identified norms and values. The option of doing the operation has the potential benefit of preventing further complications such as spread of the infection, sepsis, and death. It is most likely consistent with the norm of beneficence because the potential benefits should outweigh the risks of the surgery. This would not be the case if the state of the operating room significantly increases the risks of complications, especially postoperative infection, to the point that the operation itself has the same risks as not doing the operation. If the mother continues to refuse to consent to the operation, then this option infringes on respect for her autonomy as well as her right as a parent to make medical decisions regarding the care of her child. The option of not doing the operation has the benefit of allowing the boy to return to

work immediately (if he is physically able to, given the current state of his leg). It is also consistent with respect for the mother's autonomy and her parental right to make decisions about the care of her child. However, it likely infringes on the norm of beneficence because there are no medical benefits to delaying operative intervention, unless the operation has the same risk-benefit profile as this option.

The next steps in the justification process are to determine if infringement on values and norms is necessary and minimized. Performing the operative intervention without the mother's consent will infringe on her autonomy and her legal right to make decisions about her child's care. If adequate explanations have been given to the mother, and additional stakeholders such as local medical personnel or community elders have been consulted and the mother still refuses, then it would be necessary to infringe on these norms in order to do the operation. Taking the time to better explain the situation, as well as bringing in local medical personnel and community elders, if possible and appropriate, would help ensure that infringement on these norms has been minimized. The option of not doing the operation necessarily infringes on the norm of beneficence if the risks of this option are significantly greater than the risks of the operation. If this option is chosen, the trauma surgeon can minimize infringement on beneficence by making plans to closely monitor the boy's medical condition through regular visits to the clinic.

Finally, the stakeholders must determine whether or not they would be comfortable sharing their decision-making process with others in the community. If the trauma surgeon makes a strong effort to explain the necessity of operative intervention to the mother, bringing in other stakeholders for help, but the mother still refuses, then the surgeon would have to decide whether a unilateral decision to intervene is something that she would be comfortable sharing with others. If operative intervention is necessary, urgent, and has an acceptable risk-benefit profile, then she would likely be willing to make a unilateral decision. However, if the mother continues to refuse and they are able to compromise on close monitoring with the potential of doing an operation if the boy's condition deteriorates in the future, then this might be a more reasonable option.

One important factor to keep in mind in this case is that the trauma surgeon is an outsider in the community. If she intervenes in a way con-

trary to the wishes of the mother, it could damage her reputation in the community and drive other community members away from seeking care in her clinic. Therefore, she must make sure that an operation is absolutely necessary and be willing to defend her actions publicly before proceeding without the mother's consent.

CASE COMMENTARY

Even when medical aid workers speak the language of the patients they are serving, there are still significant barriers to communication. In this case, the mother does not seem to understand the severity of her son's medical condition and refuses an intervention that the medical aid worker believes is both necessary and urgent. If the mother continues to refuse the operation after additional explanations, then the trauma surgeon has a challenging decision to make. While operative intervention is clearly the medically indicated choice, the trauma surgeon has to consider the effect that this choice will have on her relationship with the boy and his mother, as well as with the rest of the community. In addition, she would have to determine if she would be legally allowed to make a unilateral choice to intervene. Because of her position as an outsider, the trauma surgeon may have to compromise in this case and allow the boy to leave with close monitoring so that she can continue to work in the community and to intervene in the future if the boy's medical condition worsens.

Because miscommunication can result in devastating outcomes in international medicine, medical aid workers should take steps to minimize the potential for communication barriers to adversely affect patient care. For example, patients who have the potential to develop complications soon after an intervention could be kept as inpatients for a couple of days for observation or scheduled for early follow-up, so as to identify problems early and remedy them before they cause irreversible damage. When medical aid workers cannot ensure that they are communicating clearly, it is important that they observe patients closely to help avoid complications.

Different Medical Beliefs

Patients in developing countries and the medical aid workers who serve them often have different understandings of diseases or medical

treatments. For example, many patients are not familiar with the germ theory of disease, so explanations regarding the purpose of antibiotics may not make sense to them. In addition, patients are often familiar with treatment regimens very different from those used in Western biomedicine. For example, patients may be accustomed to the application of herbs, splinting, and months of rest for broken femurs. In contrast, the Western standard of care for this problem is intramedullary nail fixation or traction (Sechriest and Lhowe 2008). Patients should be expected to have difficulty comprehending and accepting this radically different treatment modality. When medical aid workers and their patients have completely different understandings of medicine, the aid workers may have difficulty explaining why interventions are necessary or ensuring that patients understand their treatment plans. The following case presents one such situation, in which the medical aid worker is unsure about initiating pharmaceutical treatment in a patient who believes that his illness is the result of sorcery.

Case 1.4: Sorcery and Tuberculosis

A twenty-three-year-old man presents to a clinic in rural Haiti with a history of weight loss, fevers, night sweats, and a cough productive of bloody sputum. He has gotten so weak that he is unable to work in his fields. The medical aid worker clinically diagnoses him with tuberculosis and collects a sputum sample to send to the lab for confirmation and resistance testing. When the man is told that he has tuberculosis, he says that he is sure that his neighbor gave it to him through a curse.[5]

The medical aid worker explains to the man that there are medications available to treat tuberculosis, but they have to be taken every day for nine months in order to be effective. The clinic will provide him with these medications free of charge. The man agrees to take the medications but comments that what he really needs is for his neighbor to reverse the curse. The medical aid worker wonders whether it is appropriate to initiate this intense treatment regimen, given that the man does not understand the etiology of his disease or the purpose of the treatment, and if so, whether he should try to change the patient's beliefs regarding the etiology of his condition.

CASE ANALYSIS

While rare in developed countries, tuberculosis (TB) is one of the most common infectious diseases worldwide. According to the World Health Organization (2003), over eight million people develop active TB each year, and two million of these people die from this disease. The developing world bears 95 percent of the global disease burden of TB, so medical aid workers in developing countries are likely to encounter patients with the condition. Because of different cultural constructions of illness, many of the patients whom medical aid workers encounter will have beliefs like those of the man in this case. The important question that medical aid workers should ask is if these beliefs will interfere with patients' ability to adhere to treatment plans and if this interference will be harmful.

Stakeholders

The primary stakeholders in this case are the patient and the medical aid worker. In addition, all of the community members whom the patient has close contact with are stakeholders because they are at risk of acquiring tuberculosis.

Medical Facts

The medical aid worker and patient in this case are not in full agreement about the medical facts. The medical aid worker diagnoses the patient with tuberculosis because the man has a classic clinical presentation of weight loss, fevers, night sweats, and hemoptysis. The aid worker knows that tuberculosis is caused by a mycobacterium and that the only proven treatment is directly observed therapy, short course (DOTS) with a multidrug regimen (WHO 2003). If the patient has susceptible tuberculosis, then his prognosis is good with DOTS. If the patient has multidrug-resistant TB, then he may need to take different medications and will have a lower chance of recovery. However, if the patient is not treated, he is likely to get progressively worse and eventually die from tuberculosis. The patient's perception of his disease is different from that of the medical aid worker. He is aware that he has tuberculosis and that it has hindered his ability to work. He believes that the source of his condition is a curse put on him by a neighbor. He has not done anything to treat his condition yet, but believes that in order to be cured he needs his neigh-

bor to reverse the curse. However, he is willing to try taking the medications as well. He has probably seen people die from TB and realizes that he could die if not treated.

Goals and Values

The medical aid worker and patient both want the patient to get better. In being concerned over the patient's beliefs regarding the etiology of his disease, the medical aid worker probably values having patients understand their medical problems and the rationale behind treatment plans. The patient values being able to return to work.

Norms

The bioethical norms important in this case are nonmaleficence, beneficence, and autonomy. The medical aid worker must make sure that the intervention will not be exclusively harmful to the patient. Antibiotic treatment for tuberculosis can be harmful if patients do not take it consistently or stop taking it early, because this can lead to drug resistance and make future treatment more expensive and less successful. Therefore, the medical aid worker should do what he can to ensure that the patient will be able to adhere to the full duration of the treatment. If the patient is likely to adhere to treatment, then the norm of beneficence is important. Beneficence requires that the benefits of treatment outweigh the risks. For tuberculosis treatment, the DOTS regimen has proven to be very successful. While these medications do have some side effects, they significantly reduce the mortality rate of people infected with TB.

Respect for autonomy is the other important bioethical norm. Respect for autonomy allows patients to make choices regarding their medical care. It requires that physicians inform patients about treatment alternatives and ensure that they understand the consequence of their choices. The patient in this case is willing to take medications, even though he does not understand their mechanism with respect to the etiology of TB. Therefore, he does not fully comprehend the choice that he is making or the consequences of failing to adhere to the treatment plan. It is not clear whether the patient's lack of understanding will affect his compliance with treatment.

The professional norm important in this case is the standard of care. DOTS is the worldwide standard of care for TB treatment and has been

made available for little or no cost in developing countries through donations to the World Health Organization as well as nonprofit organizations. If the physician refuses to provide the man with tuberculosis medications because of the man's beliefs about the etiology of the disease, he would not be providing this patient with the standard of care. In addition to the professional norm of standard of care, the medical aid worker should consider whether or not denying the patient DOTS would be considered medical malpractice. As discussed in Case 1.1, medical malpractice occurs when a physician fails to provide the quality of care required by the law and that failure results in injury to the patient (Furrow et al. 2001, 165). In this case, the patient presents to the physician with active tuberculosis, and the standard of care is DOTS. If DOTS therapy is available, then the physician is legally required to offer this option to the patient. In the United States, if a physician did not offer DOTS to a patient who subsequently suffered injury (in the form of further morbidity or mortality), the physician would probably be liable for damages. While medical malpractice may not be a concern to the medical aid worker because of the legal environment in Haiti, he should consider this norm in his decision making.

Limitations

One limitation to providing treatment for tuberculosis is time. The treatment regimen is at least nine months long, and medical aid workers often do not serve for a long enough period to see treatment through to the end. It is therefore important for medical aid workers treating tuberculosis to ensure that the infrastructure is in place for their patients to continue receiving treatment even if the aid workers are no longer present. This is especially important in the treatment of TB, because disruptions in treatment regimens can lead to drug resistance and make future treatments more difficult and less successful (Yong Kim et al. 2005). Not only should the medical aid worker consider his own time limitations, but he should also consider the resource limitations of the clinic. If the clinic does not have a steady supply of tuberculosis drugs, then this could lead to interruptions in treatment regimens and drug resistance among patients.

Several limitations might affect the patient's ability to adhere to DOTS treatment. First, the patient would have to be able to come to the clinic

every day in order to take his medications or have someone from the clinic visit his house daily to administer them. In addition, adequate nutrition is very important in recovery from tuberculosis, and because the patient cannot work, he may not have the means to get adequate food during his recovery. Also, because the patient is not working, he probably cannot afford to pay for medications, so he may have to rely on the clinic to provide free treatment.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The two basic options that the medical aid worker has in this case are to start the patient on DOTS therapy or to refrain from starting DOTS. Because DOTS therapy is the standard of care, is consistent with the norms of beneficence and nonmaleficence, and has been agreed to by the patient, this option is more desirable than the alternative. Instead of focusing on whether or not the medical aid worker should begin DOTS, the justification process explores whether or not the medical aid worker should try to change the patient's beliefs regarding the etiology of his disease.

The fist step in justification is to determine whether or not the option will be effective in achieving the identified goal. Both the patient and medical aid worker want the patient to get better, and DOTS therapy gives the patient the best chance of recovering. Intuitively, it would seem that making sure the man understands the etiology of his disease and the rationale for treatment would make him more likely to adhere to the treatment plan. If this is the case, then this option has a greater likelihood of efficacy.

The next step in justification is to determine if the benefits of the option outweigh infringement on the identified norms and values. Providing the man with medication is generally consistent with the norms of nonmaleficence and beneficence. In addition, because this option is the standard of care, the medical aid worker has both a professional and legal duty to provide the medications. The only case in which providing DOTS could be harmful is if the patient fails to complete a full course of treatment and develops drug-resistant tuberculosis. If educating the patient about TB increases the potential for compliance, as compared with merely giving the patient DOTS therapy, then this option has a better risk-benefit profile. If the options have the same potential for

noncompliance, then they are equal with respect to beneficence and nonmaleficence.

It could be argued that ensuring the patient's understanding of his disease is essential to make sure he is asserting a truly autonomous choice. However, there are many situations in which patients do not fully understand a treatment or procedure to which they are allowed to consent. For example, it is almost impossible to explain complex surgical procedures such as liver transplants to patients, because there are so many technical details. If physicians can get patients to understand the basic details of the transplant and the subsequent treatment plan, then they will accept patient consent. In this case, the medical aid worker must determine if giving the patient additional information regarding his medical condition will affect his treatment choice or his willingness to adhere to the treatment plan.

The next step in justification is to determine if infringement on the norms and values is necessary and minimized. Providing the man with medications does not necessarily infringe on any of the norms or values in this case. The medical aid worker could minimize the potential for noncompliance by making sure that enough medications are available and that the man can come to the clinic daily to receive them or that someone from the clinic can bring medications to the patient. If enhancing the patient's understanding of his condition will help with compliance, then the option of further explanation is more consistent with beneficence and autonomy.

The final step in justification is to determine whether or not the stakeholders would be comfortable in sharing their decision-making process with others. If the medical aid worker provides the medications and does his best to ensure that the patient is able to adhere to the regimen, then he should be comfortable sharing this course of action with others.

CASE COMMENTARY

It seems intuitive to argue that incorrect etiologic beliefs about tuberculosis are a primary reason that patients in developing countries do not comply with their medications. However, an interesting study by Paul Farmer (1999) in Haiti's Central Plateau examined the beliefs of one hundred tuberculosis patients regarding the etiology of their disease and their adherence to treatment regimens. All of these patients were offered

free and convenient care, and half of the patients were offered supplemental food and income in addition to care. The majority of patients in both groups believed that sorcery might have caused their illness. According to previous studies, these patients should have been less compliant with their treatment regimens. However, this study found that these beliefs did not affect compliance with therapy. What did predict compliance was whether or not patients had access to supplemental food and income. Rather than attempting to educate patients about the microbial etiology of disease, this study suggests that it is more effective to provide economic and nutritional support to encourage patients to adhere to medication regimens.

Traditional Healers

For several reasons many people in developing countries visit traditional healers when they need medical care. Traditional healers are often more easily accessible than medical clinics (Baskind and Birbeck 2005). Traditional healers are generally less expensive than medical clinics or hospitals (Ekortarl, Ndom, and Sacks 2007). Because traditional healers live with and know the people in their communities, they are often more trusted than medical aid workers who are outsiders (Clem and Green 1996). Traditional healers are aware of the cultural, social, and psychological context of disease within their communities, which allows them to design treatments that are consistent with cultural fears, superstitions, and beliefs (Baskind and Birbeck 2005; Ekortarl, Ndom, and Sacks 2007). Because people in developing countries often believe in supernatural etiologies for disease, they tend to seek care from traditional healers who are sensitive to these beliefs and offer treatments that are consistent with them (Baskind and Birbeck 2005; Dotchin, Msuya, and Walker 2007; Epstein 2007, 141; Osborne 2006). Traditional healers, with their focus on the psychosocial factors affecting illness, have a lot to offer patients (Fadiman 1997, 266).

While it is true that traditional healers can offer holistic interpretations of illness and treatments that are culturally constructed, these treatments are not always beneficial or even benign. For example, one traditional healing approach to snake bites in northern Ghana involves incantations and entrance into the spirit world, along with the application of some leaf ointment (Bishop 1986). This treatment may be margin-

ally effective, but is not beneficial in cases of especially venomous snakes for which antivenin treatment is necessary for survival. Even when the actual procedures performed by traditional healers are medically benign or marginally beneficial, they can still have serious effects on patients. Although traditional healers are often less expensive than hospital visits, repeated interventions can become costly for patients (Baskind and Birbeck 2005; Ekortarl, Ndom, and Sacks 2007). In addition, individuals often seek the care of traditional healers before seeking care from medical clinics or hospitals, resulting in treatment delays, which can have devastating consequences (Abbey 1971; Birbeck 2000; Dotchin, Msuya, and Walker 2007; Ekortarl, Ndom, and Sacks 2007; Fleet 2007; Holmes 1996). Chadney (2004) describes a situation in which a pregnant woman began to have complications at seven months gestation. Her husband brought her to two different traditional healers, the second of whom treated her with injections and herbs. During this treatment, the woman went into labor, and the traditional healer made an unsuccessful attempt to deliver the baby. At that point, the traditional healer sent her to seek medical care, but both she and the baby died before they arrived at the hospital.

The use of traditional healers has the potential to create or contribute to ethical problems in international medicine. Traditional healers have different conceptions of health and disease than medical aid workers and may influence patients' understanding of these concepts. Beyond affecting the beliefs of patients, traditional healers may actually perform procedures that medical aid workers perceive as harmful. The following case describes a traditional healing practice that the medical aid worker believes has harmed a patient.

Case 1.5: Bush Thoracotomies

A patient with a fever, chest pain, cough, and shortness of breath goes to a hospital staffed by local doctors and medical aid workers in Papua New Guinea. Upon physical exam the medical aid worker sees that the man has a large purulent draining wound on his chest, consistent with an empyema. When asked about the cause of the empyema, the patient explains that he sought the help of a traditional healer in his village about two weeks earlier when he developed a persistent cough and sore throat. The healer informed him that he had pus in his chest that needed

to be drained. The healer performed a procedure in which he opened up the patient's thoracic cavity and stuffed a mixture of leaves, mud, and cow dung into the pleural space. A couple of days later, the pus began to drain, confirming the healer's diagnosis.[6]

The medical aid worker, unsure about what to make of this situation, asks one of the local doctors about this practice. The local doctor tells him that traditional healers in surrounding areas commonly perform this procedure, which they term a "bush thoracotomy." The empyemas caused by bush thoracotomies generally resolve on their own, although some patients require antibiotics to treat resulting infections. In addition, there have been several deaths from bleeding and septicemia as a result of this practice.

The medical aid worker asks the local doctor about what they have done to stop bush thoracotomies, to which he responds: "We do not have much contact with traditional healers. They practice up in the hills and do not associate with this hospital. Our primary knowledge of their practices comes from patients who present to us with problems resulting from their treatments." The medical aid worker is concerned about the continuation of this practice and other harmful procedures performed by traditional healers. He asks the patient where the traditional healer lives and decides to visit him the following day.

The medical aid worker goes to the house of the traditional healer with a translator to discuss the practice of bush thoracotomies. He tells the traditional healer about the patient who came in with the draining empyema and describes his concerns about the medical effects of bush thoracotomies, emphasizing that these procedures are incredibly harmful to patients and ineffective in treating upper respiratory infections. The traditional healer tells the medical aid worker that these procedures are very successful in draining illness-causing pus from the pleural cavity and that he does not think that the procedure is dangerous or harmful. The traditional healer says that as long as patients come to him with upper respiratory complaints, he will continue to use this procedure, as it is the most effective way of treating them.

CASE ANALYSIS

In this case, the ethical issue that arises is whether or not the medical aid worker should engage the traditional healer in a dialogue about what

he sees as a harmful practice, and if so, how this conversation should happen. The assessment of this case focuses on how the medical aid worker should approach communication and negotiation with the traditional healer. Rather than immediately judging the procedure performed by the traditional healer as harmful and therefore wrong, it is important that the medical aid worker reflect on his own biases and elicit the beliefs and values of the traditional healer. Both of these can be achieved using the assessment questions.

Stakeholders

There are several stakeholders in this case. The primary stakeholders are the medical aid worker, the patient, and the traditional healer. In addition, other medical aid workers, local medical personnel, other traditional healers, and the whole community have a stake in this case because it could positively or negatively affect the relationship among the different medical providers as well as between these providers and the patients they serve.

Medical Facts

It is clear that the medical aid worker and the traditional healer have different understandings of the medical facts. While the medical aid worker is concerned about the patient's empyema but not about the upper respiratory infection, the traditional healer is concerned about the upper respiratory infection but believes that the empyema is a sign of healing. The empyema and purulent drainage from the patient's pleural cavity signify to the medical aid worker that the procedure performed by the traditional healer was harmful, while these same signs are an indication to the traditional healer that his treatment is working. The traditional healer recognizes that his procedure caused the drainage but does not appreciate that the drainage is a sign of infection and a cause for concern. The problem that arises in this case is whether or not there is a way for the medical aid worker and traditional healer to agree upon the medical facts regarding the practice of bush thoracotomies.

Goals and Values

While there is significant disagreement about the medical facts in this case, the medical aid worker and the traditional healer agree that the goal

of their interventions is to cure patients' medical problems. The common goal of healing may be able to open up a dialogue between the medical aid worker and the traditional healer about different healing practices, including bush thoracotomies. One value important to both the medical aid worker and the traditional healer is promoting the health of their patients. In this case, the medical aid worker and the traditional healer share common goals and values but disagree about how to achieve them.

Norms

Several bioethical norms are important in this case, including nonmaleficence, beneficence, relationality, and respect for autonomy. The most important norm for the medical aid worker is nonmaleficence. Because he perceives bush thoracotomies as dangerous, the medical aid worker believes that the traditional healer should discontinue the practice so as to avoid harming more patients. The traditional healer, on the other hand, believes that bush thoracotomies are beneficial procedures, which are consistent with his duty of beneficence. In addition, he recognizes that patients have a choice between traditional healers and the medical aid workers, so his services allow patients to assert autonomy in deciding where to receive their medical care.

The relationships between patients, traditional healers, and medical aid workers are important in this case. The traditional healer lives in the community and has been there for his entire life. He understands the beliefs and customs of community members and has gained their trust. He has a long-standing relationship with the community that will continue after the medical aid worker leaves. Because community members have established relationships with the traditional healer, they may trust him more than the medical aid worker, so it is important that the medical aid worker try to work with the traditional healer rather than undermine him.

The traditional healer and medical aid worker share the professional norm of providing patients with the standard of care. However, because they have significantly different training and understanding of diseases and their treatments, their standards of care are very different.

Limitations

The most significant limitation of the medical aid worker in this case is time. He will eventually have to leave the area, whereas the traditional

healer lives in the community permanently. As a visitor, the medical aid worker is less likely to have strong relationships with his patients, so it may be hard for him to convince them that the traditional healing practices are harmful.

ANALYSIS AND JUSTIFICATION OF OPTIONS

After his initial dialogue with the traditional healer, the medical aid worker has several options for how to proceed with trying to discourage bush thoracotomies. He could determine that the beliefs of the traditional healer are so incompatible with his own beliefs about the medical facts that he will not be able to reach an understanding with the traditional healer and should discourage community members from seeking bush thoracotomies. On the other hand, the medical aid worker could determine that the conversation is just the beginning of a dialogue, and that because he and the traditional healer share common goals, values, and professional norms, he may be able to convince the traditional healer that bush thoracotomies are harmful. It should be noted that neither of these options guarantees that bush thoracotomies will stop, but each option provides the next step that the medical aid worker could take in the direction of achieving this goal.

The first step in justifying the options is to determine whether the option is effective in reaching the identified goals of the stakeholders. The common goal of the medical aid worker and the traditional healer is promoting the health and well-being of the community. The specific goal of the medical aid worker in meeting with the traditional healer is to eliminate the practice of bush thoracotomies, which he believes is consistent with their shared goal. The traditional healer does not share the medical aid worker's goal of eliminating the practice of bush thoracotomies because he does not think that they are harmful. The option of discouraging community members from seeking bush thoracotomies may achieve the medical aid worker's goal of stopping bush thoracotomies. However, it might backfire in that community members may choose to continue seeking care from traditional healers and refrain from visiting medical aid workers. The other option of continuing the dialogue between the medical aid worker and the traditional healer encourages cooperation and may open up collaboration between these two parties, allowing them to provide care that is complementary. They may be able

to come to an understanding about what constitutes harm and benefit in medical care, and use this common understanding to assess practices such as bush thoracotomies.

The second step in justification is to determine whether the benefits of the option outweigh its infringement on the identified norms and values. If the option of discouraging bush thoracotomies is successful, then it ensures that community members are no longer harmed by this practice. However, this option risks losing the trust of community members, driving them toward seeking care from traditional healers rather than medical aid workers. The option of continuing dialogue also has the potential to eliminate bush thoracotomies. However, because traditional healers will likely continue to offer these procedures during the dialogue, it will infringe on the norms of beneficence and nonmaleficence during this time.

The third step in justification is to determine whether or not infringement is necessary to achieve the desired goal. The first option requires infringement on relationality because the medical aid worker would have to discourage community members from seeking care from their trusted traditional healers. The second option may eventually be consistent with all of the identified norms and values if it is successful in eliminating the practice of bush thoracotomies. However, it will necessarily infringe on the norms of nonmaleficence and beneficence as the dialogue proceeds.

The fourth step in justification is to determine whether or not the level of infringement has been minimized. Of the two options, continuing the dialogue infringes less on the identified values and norms. The more quickly that communication and negotiation can occur, the less infringement there will be on nonmaleficence and beneficence.

The final consideration in the justification of the options is whether or not the stakeholders would be comfortable sharing their decision-making process with others. The option of discouraging bush thoracotomies undermines the relationships between traditional healers and patients. The medical aid worker may not be comfortable sharing this decision with others, especially if no additional effort was made to communicate with traditional healers. The option of continuing dialogue is a more cooperative process. It could also bring other stakeholders, such as community members and local medical personnel, into the dialogue.

The medical aid worker and other stakeholders should be comfortable sharing this type of conversation with others.

Of the two options for how to proceed after the initial meeting, continued communication and negotiation with the traditional healer about the practice of bush thoracotomies is more likely to achieve both the shared goal of promoting health and well-being and the medical aid worker's goal of eliminating bush thoracotomies. If the traditional healer is unwilling to engage in a dialogue about bush thoracotomies, as the second option requires, then the medical aid worker may decide that the only viable option is to discourage patients from seeking these procedures.

CASE COMMENTARY

Communication between medical aid workers and traditional healers is important in international medicine. In many developing countries, individuals commonly visit traditional healers before medical aid workers for various reasons (for example, beliefs about spiritual causes of disease, trust in traditional healers, convenience, availability). If the patients of medical aid workers commonly visit traditional healers, it is essential that the aid workers learn about traditional healing practices and the effect that they have on patients. If medical aid workers are able to engage in dialogue with traditional healers, they can learn about the cultural constructs of disease and healing practices consistent with medical beliefs. In addition, medical aid workers can teach traditional healers about Western medical theory and treatments. This type of dialogue has the potential to positively impact patient care by both parties.

While this case emphasizes the continuation of dialogue between the medical aid worker and the traditional healer, it does not require that the medical aid worker accept a traditional healing practice that he perceives as harmful. Although dialogue and negotiation are important in interactions with traditional healers, these approaches do not require that medical aid workers ultimately accept traditional healing practices as valid. While it may be argued that traditional healers have different standards of evidence, any healing practice that claims to have a particular outcome should be judged against that outcome. When a medical aid worker determines that a traditional healing procedure, such as a bush

thoracotomy, is harmful to patients, he should work toward eliminating it. Permitting this practice and other similarly dangerous practices to continue allows patients to be harmed by traditional healers, even if this harm is unintentional.

In attempting to eliminate harmful traditional healing practices, it is important for medical aid workers to realize that these practices are deeply rooted in society and that those who perform them often have high social status. It is unrealistic for a medical aid worker to think that he or she has the ability to change deeply embedded traditional healing practices in a couple of weeks or even a couple of months. However, it is realistic to begin a dialogue that may eventually lead to alterations in harmful traditional healing practices. By engaging traditional healers in conversations about their practices and emphasizing the joint obligations of medical aid workers and traditional healers to patients, medical aid workers will not only have the opportunity to alter harmful traditional healing practices, but also to learn about cultural constructions of illness and the treatments that support these beliefs.

CHAPTER 2

Goals and Values

Different Goals

The goal of a medical intervention is basically the desired outcome. Patients may have general goals for medical interventions such as cure of disease, extension of life, improvement in quality of life, or the ability to return to normal activities. Alternatively, they can have very specific goals, such as regaining the ability to speak after a stroke. Patients in developed countries often have goals that reflect Western values, such as seeing a child graduate from college or being able to attend a professional sporting event. Similarly, patients in developing countries may have specific goals reflective of their cultures. Goals provide the motivation for patients to undergo medical interventions and for medical personnel to provide them.

Stakeholders often have different goals for medical care. For example, a patient who develops pneumonia may have the goal of returning to work quickly, while the physician has the goal of curing the patient. In this case, the same action, giving antibiotics, will likely be effective in achieving the goals of each stakeholder. Even though the patient and physician have different goals, there is not an ethical problem, because they can agree on a treatment plan. However, ethical issues can arise when stakeholders have different goals that directly conflict with each other. Using the same example, if the physician believes that the best way to cure the patient's pneumonia is to admit the patient to the hospital to administer intravenous antibiotics, but the patient wants to go back to work immediately, the goals can no longer be achieved with the same action. The patient and physician must now choose between two mutually exclusive actions. In this scenario, the stakeholders have to come to agreement regarding their goals before being able to decide upon the treatment plan.

In international medicine, patients and medical aid workers can have vastly different expectations for medical interventions. Medical aid workers come from medical systems in which patients rarely die from infectious disease, dehydration, or malnutrition. They formulate their goals based on experiences in the developed world, which may not be realistic given their circumstances in developing countries. Conversely, patients and local medical personnel in developing countries formulate their goals based on their experiences with medical care. They may not even realize that there is a cure for tuberculosis or effective treatments for dehydration. Their goals reflect the state of medical care in their communities, which is often significantly less than what medical aid workers can offer. The following case illustrates an ethical issue that arises when medical aid workers and the local medical doctor have different goals in an emergency situation.

Case 2.1: Aggressive Neonatal Resuscitation

Two medical aid workers serving at a clinic in Haiti respond to calls for help from a local medical doctor when a pregnant woman arrives in active labor. The woman has been in labor for several hours and is now tiring. It appears that she tried to deliver the baby at home with a midwife but was unsuccessful. The medical aid workers quickly assess the woman and decide that they need to do an episiotomy in order to aid with the delivery. In addition, they ask the local medical doctor to have equipment on standby in case they need to resuscitate the infant, who may have been deprived of oxygen during the prolonged labor.[1]

The local medical doctor has supplies that will allow the medical aid workers to suction, intubate, and manually ventilate the infant. However, the clinic does not have mechanical ventilators, oxygen tanks, or incubators, all of which will probably be needed to keep the infant alive if resuscitation is successful. Given the limitations in equipment, the local doctor does not want to attempt to resuscitate the infant, because they will be unable to meet the infant's ongoing needs following resuscitation. He thinks that they should focus on preserving the life of the mother. The medical aid workers do not want to give up on the infant. They think that they should at least attempt resuscitation and then determine if the clinic can handle the infant's ongoing needs.

CASE ANALYSIS

The medical aid workers and local doctor have a tough decision to make in this case. They can attempt resuscitation, which will likely be successful, and then attempt to meet the ongoing needs of the infant, which will likely be unsuccessful, or they can refrain from attempting resuscitation, which will probably result in the infant's death shortly following birth.

Stakeholders

The primary stakeholders in this case are the medical aid workers, the local doctor, the pregnant woman, and the infant. This case focuses on differences between the goals of the medical aid workers and of a local medical doctor. Other important stakeholders in this case are the patient's family members.

Medical Facts

The local medical doctor and the medical aid workers are in agreement about the medical facts. The patient is in prolonged active labor and has been unable to deliver the baby. They believe that she will be able to deliver safely if they do an episiotomy. Without delivery the woman is at risk of serious morbidity and mortality, and the fetus will surely die. The medical aid workers and local doctor are concerned that the fetus is in distress and will need resuscitation following delivery. Because they are unsure of the duration of labor thus far, they cannot accurately predict the likelihood of fetal survival or the extent of anoxic brain injury. The local medical doctor and medical aid workers agree that they will probably be able to resuscitate the infant if needed, but they are not sure if they will be able to meet the infant's needs following resuscitation.

Goals and Values

The goals of the medical aid workers are survival of the mother and successful resuscitation and long-term survival of the infant. The local medical doctor is more reserved. His primary goal is to preserve the life of the mother. These goals are compatible with each other in the sense that delivery of the fetus is needed to preserve the life of the mother, and resuscitation of the infant following delivery will not be detrimental to the health of the mother. The disagreement in this case is over the

goal of the medical aid workers. The local medical doctor does not think that long-term survival of the infant is likely, because the clinic does not have the supplies to treat a seriously ill newborn, so resuscitation would merely prolong the infant's dying.

While not explicitly stated, the cultural values of the medical aid workers and the local medical doctor are apparent in this case. The medical aid workers come from a medical tradition in the developed world that values technology and the ability to save marginally viable lives. If a patient like this presented to a hospital in the United States, there would be no question about whether or not to attempt to resuscitate the infant. Physicians would automatically attempt resuscitation and, if successful, send the infant to a neonatal intensive care unit. The medical culture in Haiti is less aggressive with respect to neonatal resuscitation. Because of the lack of resources, coupled with the large burden of disease in Haiti, the local medical doctor is more accustomed to patients dying of conditions that would not be fatal in developed countries. He cannot attempt to resuscitate every marginally viable life or to sustain the lives of all seriously ill patients because he does not have the resources to do so. Therefore, his medical culture values realistic victories, such as saving the life of the mother, rather than heroic saving of marginally viable lives. In addition to exploring their own goals and values, the medical aid workers and local medical doctor should assess the goals and values of the woman and her family, if time permits, to get a sense of what they want done.

Norms

The main bioethical norms important in this case are nonmaleficence and beneficence. Nonmaleficence requires that physicians do not perform interventions that exclusively cause harm to patients. The medical aid workers would infringe on this principle if the resuscitation attempt is likely to be harmful to the infant without any hope of benefit. If the resuscitation attempt promises benefits, then the norm of beneficence is important. The stakeholders would have to balance the risks and potential benefits of resuscitation to determine whether or not they should attempt this intervention.

In addition to nonmaleficence and beneficence, the bioethical norm of respect for autonomy and its legal correlate of parental rights to make

decisions regarding their children are important in this case. Pregnant women have the right to make decisions regarding their care and the care of their fetuses. In addition, parents have the right to make decisions regarding the medical care of their children. If the woman is able to make a decision regarding the resuscitation of the infant, then this decision should be considered. Alternatively, if the woman cannot make a decision but family members are present, they should be consulted. The challenge with allowing the patient or her family to make a decision in this case is that there may not be time to consult them given the emergent nature of the situation.

The cultural differences between the medical aid workers and the local medical doctor dictate different professional norms in this case. In the developed world, resuscitation of an infant in this type of situation is the standard of care, based on the professional duty of physicians to preserve the lives of viable infants. Aggressive neonatal resuscitation is not generally considered extraordinary treatment in the developed world. Decisions about withholding or withdrawing treatments for seriously ill newborns tend to be made in neonatal intensive care units after interventions have been tried and tests have been done to determine the prognosis of these infants. This allows families to make decisions in a more controlled and less emergent manner. On the other hand, aggressive neonatal resuscitation is not a standard of care in Haiti. In the absence of the medical aid workers, the local medical doctor would not attempt to resuscitate the infant because he would not be able to support the infant with oxygenation, ventilation, or incubation following successful resuscitation.

While the medical aid workers would have to rely on the local medical doctor to determine if there are any applicable local legal norms, they would be able to consider the legal norms from their home country. The United States began setting legal precedents and statutes regarding the care of seriously ill newborns in 1982, following the case of Baby Doe (Furrow et al. 2001, 1419). Baby Doe was born in Indiana with Down syndrome and a tracheoesophageal fistula. His parents refused to consent to surgical repair of the fistula, and he died six days after birth. The physicians did not do the surgery because of the parents' refusal, and the parents' refusal was largely based on the fact that Baby Doe had Down syndrome. After this case was reported in the media, several political groups

were outraged. The Department of Health and Human Services issued emergency regulations to assure that no hospitals would deny care to seriously ill newborns. Through a series of iterations, these regulations became part of the Child Abuse Amendment Act of 1984. This act defines medical neglect as "the withholding of medically indicated treatment from a disabled infant with a life-threatening condition." It qualifies this statement by saying that there is no obligation to provide care to an infant who is comatose when the treatment would merely prolong death and not correct the underlying problem or when the treatment would be futile. Using this law as a guide, it would be important to determine whether or not resuscitation would merely prolong death or be futile because of the limited resources for sustaining the infant's life.

Limitations

There are several limitations that complicate the ability of the medical aid workers and the local medical doctor to provide adequate care for the infant. Time is a limiting factor in the sense that they must make a decision about whether or not to attempt resuscitation quickly. In addition, the clinic is lacking several supplies necessary for supporting a seriously ill newborn. It does not have a mechanical ventilator, incubator, or oxygen tank available. It is unclear whether antibiotics, laboratory facilities for blood testing, or ultraviolet lamps, all of which might be needed, are available. One important factor for the stakeholders to determine is whether or not there is a hospital with adequate supplies and facilities that they can transfer the newborn to after resuscitation. If a hospital were available, they would also have to determine if there is a means for safe transportation, if the hospital will accept a transfer, and whether or not the family would be able to afford to have the infant cared for at the hospital.

ANALYSIS AND JUSTIFICATION OF OPTIONS

At this point in the case, it is important to keep in mind that the neonate may not need resuscitation. Because the medical aid workers and local doctor do not know if the fetus is in distress or how long the fetus has been in distress, the extent of injury and potential for permanent disability are also not known. Assuming that the neonate will require resuscitation for survival, the two main options are to attempt to

resuscitate the newborn or not to attempt to resuscitate the newborn. The justification of options examines both of these choices, taking into account the possible preferences of the patient and her family as well as the potential for the infant to need ongoing care for survival.

The first step in justification is to determine whether the options will be effective in achieving the goals of the stakeholders. The goal of the local medical doctor is to preserve the life of the mother. Regardless of what the stakeholders decide with respect to the neonate, the goal of the local medical doctor will likely be achieved by delivery. The option of attempting resuscitation might achieve the ultimate goal of the medical aid workers, which, besides survival of the mother, is long-term survival of the infant. However, the local medical doctor does not believe that this goal is realistic, given the limited supplies at the clinic. He believes that successful resuscitation will merely prolong the infant's death. The option of not attempting to resuscitate the infant will definitely not achieve the goal of the medical aid workers.

The next step in justification is to determine if the benefits of the option outweigh its infringement on identified norms and values. The primary benefit of attempting resuscitation is that the infant will be given the chance to survive, at least in the short term. After the initial resuscitation, the infant may be able to survive without ongoing care. However, given the circumstances, it is likely that the fetus has been deprived of oxygen and will need ongoing support, which the clinic cannot guarantee. This option infringes on the professional norm of the local medical doctor, who does not routinely attempt to resuscitate infants because of the limited resources to provide ongoing support. It would also infringe on the autonomy of the mother and her family to make decisions regarding the care of her infant if they decide against attempting to resuscitate. This option would infringe on nonmaleficence if resuscitation merely prolongs the death of the infant, thereby being harmful without providing benefits. If there is some potential for benefit, then the stakeholders have to weigh the risks and potential benefits of resuscitation in order to determine whether or not it is warranted. If the infant is likely to require interventions that cannot be provided at the clinic and there is no hospital available, then resuscitation would most likely infringe on beneficence. However, if the infant has a reasonable chance of being able to survive without ongoing interventions or can be transferred to a hos-

pital that will provide ongoing care, then this option may not infringe on beneficence. One significant challenge in this case is that medical personnel cannot accurately predict what the infant's needs will be immediately following birth or successful resuscitation, so they cannot definitively determine the potential for long-term survival or disability.

The option of not resuscitating the infant would have the benefit of not putting the infant through resuscitative measures without a reasonable chance of long-term survival. This option would infringe on the standard of care that the medical aid workers are accustomed to. In addition, it would infringe on respect for autonomy if the woman or her family requested resuscitation attempts. This option would infringe on beneficence if the alternative of attempting resuscitation offered more potential benefits and fewer harms. Although medical neglect, as defined by the Child Abuse Amendment of 1984, is not part of Haitian law, the medical aid workers could at least use this norm for guidance. Not attempting resuscitation infringes on medical neglect if resuscitation is medically indicated.

The next step in justification of the options is to determine if the option must necessarily infringe on identified norms and values. Attempting resuscitation would necessarily infringe on the standard practice of the local medical doctor by going beyond what is usually done. Because resuscitation goes beyond the standard rather than being substandard, infringement would not necessarily be negative. This option would also necessarily infringe on autonomy if the woman or her family refuse resuscitation. It would only necessarily infringe on nonmaleficence if there were no potential benefits, and on beneficence if this option had an unacceptable risk-benefit profile. The option of not attempting resuscitation would necessarily infringe on the standard of care practiced by the medical aid workers in their home country. It would also necessarily infringe on autonomy if the woman or her family request resuscitation. It would necessarily infringe on beneficence if the risk-benefit profile were less acceptable than that of attempting resuscitation.

The next step in justification is to determine if infringement on the norms and values has been minimized. Contacting a local hospital, if available, and arranging for transfer of the infant and payment for the hospital's services in advance could minimize the infringement of attempting resuscitation on beneficence. If there is no hospital available,

the medical aid workers could attempt resuscitation and then evaluate the infant to determine if further care is required and possible. This would give them a better sense of the needs of the infant before making a decision about withholding or withdrawing medical care. The option of not attempting resuscitation has a set risk-benefit profile, so infringement on beneficence would be minimized if the alternative option were less attractive.

The final step in justification of the options is to determine whether or not the stakeholders would be comfortable sharing their decision-making process with others. In order to be comfortable sharing their decision, it would be important for the medical aid workers and the local medical doctor to ask the woman and her family what they believe should be done. In addition, they should contact a local hospital, if available, to determine if transfer is a feasible option before attempting resuscitation. In reality, when faced with an emergent situation, the medical aid workers may not have time to consult family members or a local hospital, so they would have to make a decision without involving all of the important stakeholders.

In this case, the medical aid workers have to quickly make a decision because of the emergent nature of the situation. Given the limited information about the woman, her preferences, and the possibility for transfer to a local hospital, it would be reasonable for the medical aid workers to default to attempting resuscitation. This would give them time to gather needed information, assess the infant's needs, and make decisions regarding further interventions in a more controlled environment. Afterward, it would be important for them to discuss the case with local medical personnel so as to determine how best to address situations like this in the future.

CASE COMMENTARY

Neonatal resuscitation and intensive care are standard practices in the developed world because the resources and technology to achieve them are readily available. However, this is not generally the case in developing countries, so medical aid workers cannot assume that aggressive neonatal resuscitation is a standard practice where they are serving. It is very hard for medical aid workers to lower their expectations when working in the developing world because it is instinctual for them to set the same

goals as they would in their home countries. However, the reality of limited resources, facilities, and funding can make the goals of medical aid workers unachievable. Attempting heroic measures to save the life of a patient may ultimately be a futile act if resources are not available to support the patient's ongoing needs.

One lesson that medical aid workers can learn from this case is that it is important for them to be aware of the local standards of care and resource limitations before emergent situations arise. Rather than waiting for emergencies to occur, they should determine the common emergencies they need to be prepared for, discuss protocols with local medical personnel, and take inventory of the resources available to them. If medical aid workers are aware of their limitations in advance, they will be better able to make informed decisions in emergency situations and they will more likely set goals that are compatible with those of local medical personnel. In addition, it is essential that medical aid workers recognize that they are guests serving under local medical personnel. As guests, medical aid workers should be guided by the goals, values, and standard practices of local practitioners.

Different Organizational Goals

Because of the various needs of developing countries, there are often multiple humanitarian aid organizations working with the same community. Medical aid workers are likely to encounter groups working to improve infrastructure, public health, and education. In general, the goals of each group either do not overlap with, or are compatible with, the goals of other groups. However, sometimes these goals or the actions required to achieve these goals conflict with each other. The following case illustrates one such situation in which researchers want to conduct a clinical trial in a community where a medical aid worker is serving.

Case 2.2: Research Participation

A group of researchers from the United States arrives in a small town in Gambia where a medical aid worker is developing a project to eradicate malaria. The researchers would like to study the efficacy of a new antimalarial drug in this community because malaria is prevalent in the area, and the population has no access to antimalarial medications. The medical aid worker meets with the researchers to learn about the study.

She finds out that it is a randomized controlled trial, with the new drug being tested against a currently available drug. The new drug that the researchers are studying will be cheaper than currently available antimalarials, and the researchers believe that it will also have less-serious side effects. The research trial is scheduled to last for six months. Subjects who enroll in the trial will receive comprehensive medical exams along with the malaria treatments. They will also have blood tests to monitor the efficacy of the drugs during the trial. The researchers ask the medical aid worker if she will refer her malaria patients with malaria to participate in the study.

CASE ANALYSIS

Stakeholders

In this case, the medical aid worker has to determine whether or not the goal of the research study is compatible with her goal of eradicating malaria in the community. In addition to the medical aid worker and researchers, the community is a major stakeholder in this case, so eliciting their goals would be essential in order for the medical aid worker to be able to make a decision about what to do. This analysis focuses on the medical aid worker and the researchers, but comments on the community stakeholders when appropriate.

Medical Facts

The medical facts in this case are clear. Many community members have been infected by malaria, and this trend will likely continue. In order to eradicate malaria, patients who have contracted the disease need to be treated, and preventive measures should be instituted for those who have not contracted the disease. Patients with malaria can be effectively treated with pharmaceuticals. Without treatment, they are at risk of lapsing into a coma and dying. In addition to treating patients with active disease, measures should be taken to prevent those who do not have malaria from contracting it. Pharmaceutical prophylaxis and mosquito nets can be used to prevent infections in areas of high risk. The research study promises patients access to needed antimalarial drugs, which they do not currently have. However, it does not have provisions for instituting preventive measures that would be necessary for the eventual eradication of malaria in the community.

Goals and Values

The medical aid worker's goal in this case is to eradicate malaria in the community, while the researchers' primary goal is to develop generalizable knowledge about the medications that they are studying. The individual and cultural values of the medical aid worker and the researchers are not apparent in this case. In addition to defining their own goals and values, the researchers and medical aid worker should consult community leaders and community members to get a sense of their goals and values before making a final decision.

Norms

With respect to bioethical norms, Emanuel and colleagues (2004) propose eight conditions that are required to make research trials in developing countries ethical: collaborative partnership, social value, scientific validity, fair selection of study populations, favorable risk-benefit ratio, independent review, informed consent, and respect for recruited populations and study communities. To form a collaborative partnership, researchers should partner with local researchers and community members so as to share the responsibilities of research, design a trial that respects community values, and ensure that the research participants and communities benefit from the research trial and its results. Social value requires that research is valuable to the community through the development of knowledge, products, continuing collaboration, or health system improvement. A scientifically valid trial is of sound design, is feasible given the setting of the developing world, and has objectives important to research participants. Fair selection of research subjects requires that vulnerable populations are protected from exploitation. The ratio of risks to benefits should be favorable as compared with the health risks of the study population. Independent review ensures that the researchers are held publicly accountable for their research and that the trial is transparent. Informed consent requires that potential participants are given information about the trial, given a choice about whether or not to participate, and allowed to withdraw from the trial at any time. Finally, respect for recruited participants requires that privacy and confidentiality are respected, participants are provided with information that arises during the trial, and participants are monitored and treated for medical

conditions that they develop during the trial. If these conditions are met, the trial should be considered ethically acceptable.

The primary professional interest of the medical aid worker is her fiduciary duty to her patients. This means that her decisions should be based on what is in the best medical interests of her patients. The primary professional interest of the researchers is to generate generalizable data that will hopefully prove the efficacy of the new antimalarial drug. These two interests are not necessarily at odds with each other. It might be in the best medical interests of patients with malaria to enter the trial because this is the only way in which they can receive treatment. However, it is important for patients to understand that researchers have an interest in generating reliable data, so their treatment decisions are dictated by study design rather than by individual patient needs.

There are many legal guidelines governing human-subject research worldwide. The Belmont Report governs the protection of human research subjects in the United States (USNCPHSBBR 1979). It requires that researchers adhere to the basic ethical principles of respect for persons, beneficence, and justice. The Declaration of Helsinki lists eighteen basic principles for medical research, which include ensuring informed consent, respecting the integrity of research participants, ensuring that research subjects participate voluntarily, and providing a reasonable likelihood that the population upon whom research is done will benefit from the results of research (WMA 1964). In addition, the Nuremberg Code (1947), which was the first international guidance document for research ethics, has ten recommendations for human-subject research, including informed consent, societal value, basis in animal models, a knowledge of the natural history of disease, avoidance of unnecessary suffering, and conduct of research only by scientifically qualified persons. In assessing the research protocol, the medical aid worker and researchers should determine if the clinical trial is in accordance with international human-subject research guidelines as well as with any legal guidelines in Gambia.

Limitations

One significant limitation in this case is the lack of antimalarial medications available in the community. The research trial may be the com-

munity's best option for securing access to antimalarial medications as part of a malaria eradication program. However, the research trial is limited to six months, so it only guarantees that the community will have access to antimalarial drugs temporarily. This time constraint may also factor into the researchers' decision about where to conduct the trial. If they are met with significant resistance from community members or the medical aid worker, they may decide to find a new location for the study. While not discussed in the case, other limitations might include lab facilities to test for malaria or inpatient hospital beds to care for seriously ill patients. If facilities are not available, the researchers may not be able to conduct the trial, or they may need to develop this infrastructure before they can begin research.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The medical aid worker has the option of referring patients to participate in the research trial or refusing to refer patients to participate in the research trial. It would be important for her to involve community members or community leaders before making a final decision. In addition, community involvement would be important for researchers to ensure that the trial design will meet the needs of the community, is culturally appropriate, and has social value.

The first step in justification of the options is to determine whether or not the option will be effective in achieving the goals of stakeholders. The researchers' goal of determining the efficacy and side-effect profile of the new antimalarial medication will only be met if they are able to do the clinical trial. The medical aid worker's ultimate goal is to eradicate malaria in the community. One essential element in a program to eradicate malaria is to effectively treat patients who have already contracted the disease. This has to be coupled with other initiatives such as providing mosquito nets to community members to decrease their risk of becoming infected. Because community members do not currently have adequate access to antimalarial medications, the research trial would be one way in which they could ensure steady access, at least temporarily. Therefore, it would help the medical aid worker achieve her goal of eradicating malaria but would not be sufficient to do so alone. The medical aid worker should keep in mind that there may be alternative options for

ensuring access to antimalarial medications, such as nongovernmental organizations or foundations that will fund a pharmaceutical purchase program, so the option of not participating in the trial might still allow the medical aid worker to achieve her goal.

The next steps in justifying the options are to determine whether the benefits of the option outweigh its infringement on the identified norms and values, if infringement is necessary, and if infringement has been minimized. The primary benefit of the research trial, from the community's perspective, is that patients will be guaranteed access to antimalarial medications for six months. The risks of the study include randomization to a treatment regimen and standardized treatment plans that cannot be tailored to the individual medical needs of the subjects. In addition, the new drugs may not be as effective at treating malaria as the current standard of care, so subjects in the experimental group risk ineffective treatment. Subjects in the experimental group will also be at risk of experiencing greater side effects than those receiving the current standard of care. Moreover, the researchers have not guaranteed the community access to antimalarial drugs after the trial has been completed. Therefore, the community risks being left in the same situation of not being able to access antimalarial medications after the trial is complete.

In order to prevent infringement on bioethical norms, the research trial should be designed so that it is consistent with the eight conditions proposed by Emanuel and colleagues (2004). If the researchers involve community members in study design and implementation, they will ensure collaborative partnership and social value. While it is important to involve community members in designing the study, the researchers are ultimately responsible for designing a scientifically valid trial. The researchers should work with the community and the medical aid worker to make sure that their choice of research subjects does not exploit this vulnerable population. Because community members with malaria do not have an alternative treatment option to trial participation, they may feel that they have no choice but to participate, even though participation entails greater risks than clinical care. On the other hand, the trial would provide a much-needed service, so rather than feeling pressured to participate in the trial, community members may welcome having access to antimalarial medications. The researchers should also have the study

reviewed by a local independent review committee (if one exists) and by their home Institutional Review Board so as to ensure that the trial is both legally and ethically valid.

There are two considerations in creating a favorable risk-benefit ratio. First, the researchers should make sure that the study is favorable for research participants. Second, they should make sure that the community as a whole will benefit from the research. One way in which to do this is for the researchers to provide study medications to the community after the trial has been completed so that they will continue to have access to antimalarial medications. The researchers should also work with community members to design a consent process that is culturally and linguistically appropriate. Finally, in order to respect participants, the researchers should design mechanisms to protect privacy and confidentiality, to monitor patients for complications, and to distribute information about trial results to study participants. The medical aid worker would be able to play an instrumental role in helping community members assess the research trial, facilitating communication between researchers and community members, and ensuring that the research meets ethical and legal standards. Even if the research trial meets these standards, participants will still be randomized to treatment groups based on trial protocol rather than on their personal medical needs. The risks of randomization could be minimized by closely monitoring data to determine if any trends arise during the trial that suggest that one treatment is more effective or less dangerous than the other.

The benefit of not participating in the clinical trial is that it avoids exposing community members to the additional risks of research. This option might also allow the community and the medical aid worker to focus on securing long-term access to antimalarial medications through nonprofit organizations or the health care system in Gambia rather than settling for this temporary solution. The risk of this option is that the community might not be able to secure access to antimalarial medications without the research trial.

The option of refusing trial participation would necessarily infringe on the goal of malaria eradication if there is no alternative for ensuring patient access to antimalarial drugs. If there are alternatives, then the medical aid worker and community should explore the risks and benefits of these options, as well as the timeline for implementing them. They

may find that it is better for the long-term success of malaria eradication to partner with a nonprofit or government organization rather than rely on the research trial to gain access to antimalarial drugs.

The final step in justifying the options involves determining whether or not the stakeholders would be willing to share their decision-making process with others. In this case, it is important to involve community members in a conversation about participation in the research study. If the community members, researchers, and medical aid worker have an open discussion about the research trial, they should be comfortable sharing their decision.

If the conversation between the medical aid worker, community members, and researchers is open and transparent, the trial is designed so as to meet community needs, and the research meets ethical and legal standards, then participating in the trial would be justified. Conversely, if the medical aid worker and community feel that their needs would be better served through an alternative approach to malaria eradication and prevention, then they would be justified in refusing to participate in the trial.

CASE COMMENTARY

In 1997, medical research in developing countries became a hot topic of debate in bioethics when Peter Lurie and Sidney Wolfe questioned the ethics of using placebo controls in a study of short-course zidovudine (AZT) therapy to decrease the rate of HIV vertical transmission in Uganda. This debate highlighted concerns that populations in developing countries are vulnerable to exploitation, that researchers are subject to less oversight in developing countries, and that the outcomes of some clinical trials may not be of any benefit to the populations being studied because those populations cannot afford to buy study treatments after the trials have been completed (Angell 1997; London 2000; Lurie and Wolfe 1997; Macklin 1999b; Resnik 1998).

Though medical aid workers do not generally conduct clinical trials in the areas where they are serving, they may encounter researchers who would like to work with their patient population. As advocates for their patients, medical aid workers should be aware of research studies and be available to help patients and communities decide whether to participate. In order to do this, medical aid workers should be familiar with ethical and legal requirements for research. Even though medical aid

workers and researchers have fundamentally different goals, properly designed research trials may be able to achieve the goals of all interested parties.

Conflicting Values among Stakeholders

Along with conflicts among stakeholders regarding the goals of medical treatment, there can also be conflicts among their values. Stakeholders can value qualities, states of being, ideas, objects, and other people, among other things. These individual values often influence medical decision making. As an example, a college athlete who sustains a shoulder injury can be temporarily treated with a steroid injection or definitively treated with an operation and several months of rehabilitation. If the athlete is a senior who has a couple of games left, he would likely choose the steroid injection, because he values being able to participate in upcoming competitions. Conversely, if the athlete is a freshman who values the ability to compete for several more years, he would likely choose to have the operation.

When multiple stakeholders are involved in a case, they often have different individual values. As with goals, different values do not necessarily create ethical issues. It is only when these values, or the options most consistent with these values, conflict with each other that ethical issues arise. The following case presents one situation in which the option most consistent with the values of the medical aid worker conflicts with the option most consistent with the values of a sick infant's mother.

Case 2.3: An Infant with Cholera

A woman arrives at a rural clinic in Nepal with her six-month-old infant. She left her village early in the morning and walked for two hours with the child on her back to get to the clinic. The mother tells the medical aid worker that the child has been experiencing severe diarrhea and vomiting for the past three days and has not been feeding during this time. On physical exam, the child is obtunded and has prolonged capillary refill. The medical aid worker immediately begins intravenous fluids. He does not have equipment to test the child for infectious diseases, but because there is a widespread epidemic of cholera in the area, he is comfortable making a clinical diagnosis of cholera and empirically starts the infant on antibiotics.[2]

By the end of the day, the infant has improved significantly. After a few more days of treatment the medical aid worker expects that the child will make a full recovery. He communicates this to the mother through an interpreter, telling her that he will keep the child in the clinic, monitoring him closely for the next few days. Upon hearing this, the mother gets very upset. She needs to return to her village to take care of her three other children, whom she left with her sister. She also does not want to leave her infant in the clinic alone. The medical aid worker pleads with the mother to allow her child to stay, assuring her that he will take good care of the infant. Eventually the mother reluctantly gives what is interpreted as verbal assent. She stays with the child through the evening, and eventually the medical aid worker leaves the clinic to get some sleep. When he arrives at the clinic the next day, the woman has left with her infant.

CASE ANALYSIS

Stakeholders

The mother, the infant, and the medical aid worker are the central stakeholders in this case. In addition, the other children and the mother's sister are important stakeholders to remember in analyzing this case. While they cannot be consulted because they are two hours away, they should be considered in deciding what to do. Rather than reviewing the case at the point after the mother has already left, this analysis focuses on the interaction between the medical aid worker and the mother in which they are discussing the treatment plan.

Medical Facts

The infant's medical problem is most likely a cholera infection. His most prominent symptoms are dehydration, diarrhea, and vomiting. The infant's prognosis is good with treatment, but he could easily die of dehydration if not treated. The medical aid worker wants to treat the infant with intravenous fluids and antibiotics at the clinic. With this care, he believes that the infant will be well enough to go home in a few days. The case does not discuss what the mother calls this medical problem, what she thinks the cause is, and what she has done to treat the infant so far. She has, however, left her other children and traveled a significant distance to the clinic to seek care. She clearly believes that the infant's condition is serious enough that she needed to walk for two hours to the

clinic. Since there is a cholera epidemic in her village, she has probably seen others die from this disease, and it is very likely that she is afraid that her child will also die. Her fear about the treatment of the problem, as evidenced by her reluctance to leave her child in the clinic, is that it will either keep her away from her other children or force her to abandon her infant, neither of which she is comfortable doing. In coming to the clinic, she was hoping that the medical aid worker would be able to give her something to use to treat the child at home rather than keeping him as an inpatient.

Goals and Values

Both the medical aid worker and the mother share the goal of recovery of the infant. The medical aid worker's primary value in this case is the ability to directly monitor the child throughout his recovery. On the other hand, the mother's primary value is being able to care for her entire family. In particular, she values taking care of her children herself. The medical aid worker should spend the time to find out why the mother does not want to leave her infant in the clinic so as to determine whether or not these fears can be overcome. For example, she may fear that the child will be taken away from her if she leaves him at the clinic. Ultimately, the medical aid worker and the mother both value the health and well-being of the infant; they just disagree about how best to care for the infant.

Norms

From the medical aid worker's perspective, beneficence is the most important bioethical norm in this case. Beneficence requires that physicians maximize the benefits and minimize the harms of medical interventions. The medical aid worker believes that inpatient treatment with intravenous fluids and antibiotics is most consistent with his duty of beneficence. One significant benefit of inpatient treatment is that the infant can be closely monitored for deterioration of his condition and treated quickly and appropriately if things go wrong. If the medical aid worker allows the infant to go home, the infant could decompensate and die before his mother would be able to get him back to the clinic.

From the mother's perspective, the bioethical norms of relationality

and respect for autonomy are important. According to the principle of relationality, relationships are important and should be respected. The mother has relationships with all of her children and has important obligations to them because of these relationships. If she stays at the clinic with the infant, she will not be able to fulfill her obligations to her other children. If she leaves the infant in the clinic, she will not be able to fulfill her obligations to him. Respect for autonomy in the case of an infant requires respect for the decisions of parents regarding the infant's medical care. In this case, the mother wants to bring the child home and care for him there. If this option is medically acceptable, then the medical aid worker should respect her decision to do so.

The professional norm important in this case is the standard of care. If the only adequate treatment for the infant's condition is intravenous fluids and antibiotics, then the medical aid worker would have to determine if providing a substandard treatment is appropriate given the confounding factors. If, on the other hand, providing oral fluids rather than intravenous fluids is an acceptable treatment, then there is an alternative option consistent with the standard of care.

There are two legal norms to consider in this case. Beyond the bioethical norm of respect for autonomy is this legal right of parents to make decisions regarding their children's health. In the United States, this right has limits, in that parental decisions that physicians feel are not in the best interests of children can be challenged in court. If the mother's decision is within the medically acceptable options, then she is within her rights to make it. In addition, the medical aid worker should consider the legal norm of medical malpractice in determining what options are acceptable. Medical malpractice occurs when a physician fails to provide the quality of care required by the law and that failure results in injury to the patient (Furrow et al. 2001, 165). For a medical practitioner to be found guilty of medical malpractice, four elements must be proven: a duty was owed, the duty was breached, the breach caused the injury, and damages occurred. The standard of care dictates the duty that physicians owe patients. In this case, it is essential to determine what treatments are medically acceptable so as to know what options would legally be allowed in the medical aid worker's home country and then use this knowledge as guidance for making a decision.

Limitations

There are several limitations in this case. The mother cannot leave her other children with her sister, especially because there is no way to contact the sister to let her know what is going on. The mother is also not comfortable with leaving her infant in the clinic, even for just a few days. The limits to acceptable treatment options from the mother's perspective are those that can be done as an outpatient.

The medical aid worker is not limited by time. He may, however, be limited by resources. While he has the supplies necessary to provide intravenous fluids and antibiotics, it is unclear whether he has oral fluids that could be given to the mother for outpatient treatment of the infant.

ANALYSIS AND JUSTIFICATION OF OPTIONS

At this point in the case, there are two possible options: keeping the child in the clinic for treatment or sending the child home with a treatment plan. Rather than making a unilateral decision, it is important that the medical aid worker fully explore the values and goals of the mother and explain his own goals and values to her. Hopefully, through open communication and negotiation, the mother and medical aid worker can come to a shared agreement about how to care for the infant.

The first step in justification of the options is to determine whether the option or options will be effective in achieving the goals of stakeholders. The shared goal of the medical aid worker and the mother is the full recovery of the infant. Keeping the infant in the clinic for intravenous fluids and antibiotics is likely to achieve this goal. Because alternative treatment options were not discussed in the case presentation, it is not clear whether oral rehydration and antibiotics would be effective in treating the infant. If this alternative is also likely to be effective with respect to the goals of the stakeholders, it should be considered as a possible intervention.

The next step in justification is to determine if the benefits of the option outweigh its infringement on the identified values and norms. The option of inpatient treatment has the benefits of medical efficacy and allowing the medical aid worker to intervene immediately if the infant's condition deteriorates. It infringes on the norm of relationality because it will force the mother to either leave her infant alone in the clinic or leave her other children under the care of her sister, neither of which

she is comfortable doing. It also infringes on respect for autonomy in that the mother would clearly prefer to take the infant home. The option of sending the infant home on oral fluids and antibiotics may be a medically acceptable alternative. The benefit of this option is that it does not infringe on the values of the mother or the norms of relationality and respect for autonomy. It may, however, infringe on the principle of beneficence, because the physician believes that the best way in which to maximize the benefits and minimize harm to the infant is through inpatient treatment.

The next step in justification is to determine whether or not it is necessary for the option or options to infringe on the identified values and norms. It is necessary for the option of keeping the child in the clinic to infringe on relationality, because the mother cannot stay in the clinic with the infant and go home to care for her other children. This option will only infringe on respect for autonomy if the mother does not agree to it or is pressured into choosing it. If the medical aid worker feels that it is the only medically acceptable option, he should communicate this to the mother, stating his concerns about the child and listening to her concerns about the rest of her family. Through open communication and negotiation, they may be able to come to a shared decision. The option of sending the child home with oral rehydration and antibiotics will necessarily infringe on the norm of beneficence if the risk-benefit profile of this option is less medically favorable than inpatient treatment. If it is likely to be effective in achieving the goal of the medical aid worker and mother, then it will not infringe on the professional and legal duties of the physician to provide appropriate medical care to the infant.

If the stakeholders determine that infringement on the norms and options is necessary, the next step in justification is to determine whether this infringement has been minimized, and if it has not, how it can be minimized. Some creative thinking could overcome infringement on the norm of relationality by the option of keeping the child in the clinic. For example, if there is a vehicle available to the medical aid worker, he could bring the mother home to inform her sister of the situation and either arrange for care of her children or bring them to the clinic so they can be together there. Or the medical aid worker could arrange to stay in the mother's village so that he would be close by if anything happens to the infant. Infringement on the norm of respect for autonomy can be mini-

mized through communication and negotiation. Infringement of the option of sending the infant home with oral rehydration and antibiotics on beneficence could be minimized by scheduling either a follow-up visit in the clinic or a home visit, as well as by educating the mother about concerning signs and symptoms for which she should bring the infant back to the clinic.

The final step in justification is to determine whether the stakeholders would be comfortable sharing their decision-making process with others. If the medical aid worker and the mother are able to openly communicate and negotiate a compromise on one of the options, they should be comfortable sharing this with others. The advantage of this process is that it might encourage others from the village to seek care at the clinic because of the respect that the medical aid worker showed for the mother's values and needs.

Even if the outpatient treatment plan would not have been effective for the infant in this case, the process of engaging the mother in a dialogue about values may have led to a better outcome. Through this dialogue, the medical aid worker would have been able to better understand the values of the mother and acknowledge their importance. From the starting point of discussing and acknowledging important values, the medical aid worker could then have explained why the option of allowing the child to go home would be ineffective in meeting their mutual goal of the child's recovery. This dialogue may have allowed for a compromise on a treatment plan that the mother was willing to adhere to.

CASE COMMENTARY

In the case as it is presented, the medical aid worker insisted on inpatient treatment for the infant. He did not encourage the mother to discuss her values. When the mother raised her concern about needing to return to her village and take care of her other children, rather than exploring this issue the medical aid worker responded by pushing his own perspective. The medical aid worker's insensitivity to the mother's concerns and the mother's unresolved obligation to her other children ultimately led her to abandon care.

By pleading with the mother to leave the infant at the clinic, which led to their departure before treatment was complete, the medical aid worker created a situation in which the infant received inadequate care. As a re-

sult, the infant was put at high risk of dying from the untreated cholera infection, especially because the mother would be unlikely to return to the clinic if the child's condition worsened. Alternatively, through communication and negotiation, the medical aid worker and the mother may have been able to reach a compromise on short inpatient treatment or home treatment with oral rehydration and antibiotics. In order to monitor the infant, the physician could have asked the mother to return to the clinic for a follow-up appointment. This compromise is more favorable than no treatment, even though it is less medically favorable than the inpatient treatment desired by the physician. Even if the infant had to be kept at the clinic, an open discussion about the mother's concerns and values may have made her more comfortable with this treatment plan.

Conflicting Individual Values

Not only can the values of different stakeholders conflict with each other, but the individual values of a single stakeholder can also conflict. When these values conflict in such a way that different options are more consistent with the different values, ethical issues can arise. As an example, a physician schedules his appointments to end early so that he can make his son's baseball game. At the end of the day, he gets an urgent request from a patient who wants to be seen immediately. If the physician sees the patient, he will miss his son's game. Alternatively, if he goes to his son's game, then the patient will have to wait to be seen or go to an urgent care center or emergency room. Obviously, the physician would have to take into account factors such as the patient's condition and the availability of alternative sources of care in making his decision. In making this decision, he will either have to infringe on the value of watching his son play baseball or of being available to see a patient who is in need. The following case presents a situation in which the medical aid worker's individual values conflict with each other.

Case 2.4: Evacuating a Dangerous Area

A medical aid worker has been running a clinic in a small village in Kenya for six months. Early one morning, a man from the village comes to her tent to warn her that armed men from a rival tribe are heading their way. He tells her to go to community's shelter, where she will be safe. While in the shelter, the medical aid worker radios the local United

Nations base for help. When the attack is over, she leaves the shelter to begin taking care of injured villagers. A few hours later, a UN jeep arrives in the village. The UN peacekeepers tell the medical aid worker that they expect more attacks to follow and that she is not safe staying in the village. They insist that she leave with them immediately. There are still numerous wounded villagers in need of medical attention, and if the medical aid worker leaves, they will not get appropriate treatment. She is torn between leaving these patients in order to ensure her own safety or staying to treat them and putting her life at risk.[3]

CASE ANALYSIS

Medical aid workers often serve in areas of conflict. Sometimes they are aware that they will be entering war zones, while at other times violence occurs unexpectedly. Because medical aid workers are temporary volunteers, they have the option of leaving the areas where they are serving at any time. At the same time, they have a responsibility to care for patients in the communities where they are serving. When faced with threats to their own lives, medical aid workers must determine the extent of their responsibility to patients in developing countries. In this case, the medical aid worker must make a challenging decision, which is compounded by the urgency with which she needs to make it.

Stakeholders

The stakeholders in this case are numerous. The medical aid worker and the wounded villagers are the central stakeholders. The other villagers who are at risk of harm from subsequent attacks and who will be left to care for the wounded villagers if the medial aid worker leaves are also stakeholders. The United Nations peacekeepers, the United Nations, and the organization that the medical aid worker is representing are stakeholders as well.

Medical Facts

The important medical facts in this case are related to the number and extent of injuries as well as the resources and personnel available to treat the wounded. There are many injured villagers currently in need of medical attention. The medical aid worker has been able to treat some of the victims, but more are in need of her care. While there are no details about

exactly how many people have been injured or the extent of their injuries, it is likely that some of the victims will die or suffer significant disability without medical intervention. The only medically trained person in the village capable of treating the injured villagers is the medical aid worker.

Goals and Values

The immediate goal of the medical aid worker is to treat the wounded villagers. After serving in the village for six months, the medical aid worker has probably developed strong relationships with villagers and been accepted into their community. She values these relationships as well as the lives of the villagers. At the same time she values her own life and has the goal of preserving it. In addition, she has relationships with family and friends at home, which she also values.

Norms

The central bioethical norm in this case is relationality. The medical aid worker has forged important relationships with villagers during her six months in the community. On the other hand, she also has important relationships with her patients, family, and friends at home. The obligations that come with all of these relationships make the decision about whether to leave challenging.

The professional norm that the medical aid worker must consider in this case is whether leaving constitutes patient abandonment. Patient abandonment occurs when a physician relinquishes care of a patient without ensuring that the patient has an alternative source of care. If the medical aid worker leaves, the wounded villagers will not have anyone to care for their medical needs. However, because she is a temporary volunteer, the villagers understand that she will be leaving at some point, even if there is no one to replace her. In international medicine, patient abandonment is, in a sense, a norm. If the medical aid worker decides to leave immediately, she may not be perceived by villagers as abandoning them. However, given the acuity of the injuries, they may at least expect her to stabilize the injured before leaving the village.

The legal norm important in this case is the duty of physicians to treat patients. In general, physicians are only expected to treat patients with whom they have a prior relationship. The medical aid worker has been in the village for six months, which means that she has a professional re-

lationship with community members, all of whom might be considered potential patients. However, as with the norm of patient abandonment, this duty is different in international medicine because the villagers understand that the medical aid worker is a visitor who will eventually leave their community. They do not believe that she has an unending duty to care for them.

Limitations

The most significant limitation in this case is time. The UN peacekeepers want the medical aid worker to leave immediately. It is unclear whether or not they would allow her to stay long enough to stabilize the wounded villagers. An additional constraint on time is the threat of another attack. If another attack comes soon, then the medical aid worker will have to seek shelter again and leave the wounded villagers behind. A further limitation is the lack of trained medical personnel. The village does not have anyone who can take over for the medical aid worker if she leaves. If she stays and is injured or killed in a subsequent attack, the villagers will also be unable to treat the wounded.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The medical aid worker has three possible options at this point: to leave the village immediately, to treat the wounded villagers before leaving, or to stay in the village. The second option is only possible if the UN peacekeepers are willing to wait for her to treat the wounded. All three options are examined below with the justification criteria.

The first step in justification is to determine whether the option will be effective in achieving the goals of the stakeholders. The two goals of the medical aid worker are to preserve the lives of the wounded villagers and to preserve her own life. The option of leaving immediately does not give the medical aid worker the opportunity to achieve her goal of preserving the lives of the wounded villagers. However, it does give her the best opportunity to preserve her own life. The option of treating the wounded villagers before leaving may allow her to achieve both goals. However, she will only be able to provide acute interventions, without any follow-up care. In addition, if another attack occurs after she leaves, she will not be able to treat the newly wounded villagers. If the medical aid worker elects to stay in the community, she may also have the opportunity to achieve

both of her goals. However, she will significantly increase the risk to her own life, and if she dies or is severely wounded, she will not be able to treat wounded villagers.

The next step in justification is to determine whether the benefits of the option outweigh its infringement on the identified norms and values. The option of leaving immediately has the benefit of ensuring the medical aid worker's safety from subsequent attacks on the village. It does, however, infringe on the ethical norm of relationality, because the medical aid worker has developed relationships with the villagers. Leaving them when they are in acute need of her care could greatly damage these relationships as well as relationships between the villagers and medical aid workers who serve them in the future. In addition, she may infringe on the professional norm of patient abandonment, as well as the legal duty to care for her patients. This depends on whether or not her position as a temporary volunteer obligates her to care for patients in this situation. Patients in developing countries are aware that medical aid workers are going to leave after a given period of time, regardless of whether or not all of their health care needs have been addressed. The duty of medical aid workers to care for patients is limited to the time during which they are serving. In this case, the villagers may believe that the medical aid worker has a duty to them following the attack and that she is abandoning them if she leaves immediately. On the other hand, they may not expect her to stay and risk her own life to care for them.

The option of treating the wounded before leaving has the benefit of allowing the medical aid worker to fulfill her duty to the villagers in need of acute care as well as to maintain her own safety if the village is attacked again. Similar to the previous option, this option may infringe on relationality in that it could strain the relationships that the medical aid worker has with villagers. In addition, it could infringe on the norms of patient abandonment and the duty to treat patients if the villagers perceive her departure as a breach of her duty to them. Specifically, while she is able to treat the acute needs of the villagers, she will not be able to provide follow-up care.

Finally, the option of staying in the village is beneficial in that it allows the medical aid worker to treat the wounded villagers in need of emergent care, provide follow-up, and treat villagers who are injured in subsequent attacks. This option has the potential to infringe on the norm of

relationality in a way opposite to that of the previous two. If the medical aid worker stays and puts her own life in significant danger, she may be infringing on her obligations to family, friends, and patients at home. Moreover, if she is killed or wounded she cannot help the villagers in the future.

The next steps in justification are to determine whether infringement on the identified values and norms is necessary and has been minimized. The option of immediately leaving the community necessarily infringes on the relationships that the medical aid worker has with villagers. In addition, it most likely infringes on patient abandonment and the duty to treat patients, because it would be reasonable for the villagers to expect the medical aid worker to stay and treat the wounded. One way in which the medical aid worker could minimize the infringement on her duty to care is to leave all of her supplies with villagers who can use them to treat the wounded. In addition, she may be able to return to the village after the situation has stabilized. However, if leaving hurts her relationship with the villagers, then returning may not be a possibility. The option of treating the wounded villagers before leaving has less of a risk of infringing on the norms of relationality, patient abandonment, and the duty to treat patients than the previous option. As with the previous option, the medical aid worker could minimize infringement on the norm of relationality by returning to the village after the situation has stabilized in order to provide follow-up care. She could minimize infringement on patient abandonment and a duty to treat by teaching villagers how to treat the wounded and leaving them her supplies. The option of staying in the village necessarily infringes on the medical aid worker's relationship with friends, family, and patients at home only if she puts herself into a dangerous situation that could easily disrupt these relationships. If she can ensure that she will be able to find adequate shelter during subsequent attacks, or is able to create an escape plan, this will minimize infringement on the norm of relationality.

The final step in justification is to determine whether stakeholders would be willing to share their decision-making process with others. Given the emergent nature of this case, the medical aid worker may not have a lot of time to go through the full process of assessing the situation, justifying the options, and deciding on a plan of action. Ideally, she would be able to get the UN peacekeepers to stay for a while so that she

can continue treating the wounded and make a decision. If she then decides to leave, she would have time to explain her choice to the villagers and teach them how to treat the wounded. Also, parting with an explanation may make returning to the village easier than if she leaves immediately. If she decides to stay, she may have time to plan an evacuation with the UN in the case of escalating violence.

CASE COMMENTARY

Many areas of the developing world are plagued by wars and violence. When medical aid workers agree to serve in dangerous areas, they should prepare themselves for violence and unrest. Rather than waiting for an emergency situation like the one described in this case, medical aid workers should establish community expectations for their actions in the case of an attack. Medical aid workers should determine when it is appropriate for them to leave and if they should return when the situation stabilizes. Medical aid workers should also teach community members how to intervene in traumas so that if they must leave, the community can still care for wounded individuals.

Competing Cultural Values

In addition to personal values, cultural values can influence medical decisions. Cultural values are the ideals, customs, and institutions of a group that members collectively regard as important. The cultural values of medical aid workers and their patients in developing countries can differ greatly. Often, medical aid workers are not familiar with the cultural values, traditions, and rituals of the population they are serving. Differences in cultural values do not necessarily create ethical issues. However, when these differences conflict with each other or influence stakeholders to make opposing decisions, ethical issues can arise.

A specific cultural difference that medical aid workers may encounter is a ritual that appears harmful to those who participate in it. One example of an important cultural ritual in some developing countries, but widely condemned outside these societies, is female genital mutilation (FGM). FGM has been documented as a traditional practice in twenty-eight countries, twenty-two of which are categorized as least developed countries by the World Trade Organization (UNCTD 2006). More than one hundred million women and girls have undergone some form of

FGM (OHCHR 2008). FGM is often a central part of cultural identity, and it encourages cultural continuity and solidarity (Nussbaum 1999, 125; OHCHR 2008). It is also a rite of passage for girls into womanhood, allowing them to join secret societies of women and learn about the roles of adult women (Gibeau 1998). Some cultures view this practice as a religious requirement as well as a requirement for marriage (Boyle 2006; Gately 2005; Lane and Rubinstein 1996).

However, FGM can also be a harmful practice, causing significant morbidity and mortality. Immediate health consequences of this procedure include pain, hemorrhage, infection, and even death (Lane and Rubinstein 1996; Macklin 1999a, 67; OHCHR 2008). Because anesthesia is not generally used, FGM can be incredibly painful for the girl. There are also long-term consequences associated with FGM, including abscesses, disfiguring scars, cysts, pain during intercourse, infertility, and chronic urinary tract infections (Macklin 1999a, 67). One of the most significant long-term consequences of FGM is an increased risk of adverse events during childbirth (OHCHR 2008; Nussbaum 1999, 120). FGM increases the risk of obstructed and protracted labor, vaginal tearing, and fistula formation during childbirth (Macklin 1999a, 67; Nussbaum 1999, 120). While medical aid workers are generally not asked to participate in or perform rituals like FGM, they may come into contact with communities who practice these rituals. The following case shows how a medical aid worker has to confront the practice of female genital mutilation in the community where she is serving.

Case 2.5: Providing Supplies for Female Genital Mutilation

A physician, after applying for a six-month medical aid experience, is notified that she will be working in a rural village in Mali, Africa. In the orientation session preceding her trip, the physician is told about the organization's health initiatives in this village, one of which is handing out sterile scalpels to women who perform female genital mutilation (FGM). Another initiative in the village is providing tetanus shots to girls before they participate in FGM. In the orientation session, the organizational representative explains that they do not agree with FGM or allow medical aid workers to participate in these rituals, but they do want to make FGM safer for the girls who are subjected to it.[4]

In preparation for the trip, the physician reads several articles about

FGM to gain an understanding of what it is and why it is so controversial. Through her readings, the physician is shocked by the barbaric nature of this ritual and by the significant immediate and long-term complications associated with FGM. She cannot understand why anyone would subject a child to this practice, and questions whether or not she should participate in initiatives that could legitimate or encourage it.

CASE ANALYSIS

Before arriving in Mali, the physician can begin by reflecting on her own perceptions of female genital mutilation using the assessment questions. Because this case addresses an ethical issue that arises before she arrives on location, the analysis focuses on the physician's perceptions of the practice. Before making a final decision, it is important that the physician learns more about the community's practice of FGM, because there can be wide variations in this ritual, some of which are not excessively harmful to participants.

Stakeholders

The physician is the central stakeholder at this point in the case because she is in the process of considering how to address a cultural practice in the community where she will be serving. After she gets to Mali, she will have to identify the other main stakeholders, which will likely include community leaders, women who perform FGM, girls who have had or who are planning to have FGM, and community members who oppose this practice.

Medical Facts

From what the physician has read about FGM, it can lead to serious medical problems, such as bleeding, infection, and complications in childbirth. These potential medical problems may not be prevalent in the community where the physician will be serving, depending upon how extensive the local FGM procedures are. So it is important for her to learn about the adverse medical effects of FGM in the community before judging it as dangerous. If the women and girls in the community do not experience the adverse effects associated with FGM, then their ritual may not be as dangerous and barbaric as the physician perceives it to be.

Goals and Values

Assuming that the practice of FGM in the community does result in serious adverse medical outcomes, the physician would have the ultimate goal of ending this practice. However, given that she is only serving for six months, she would also need to have realistic short-term goals such as making FGM safer and opening up communication about FGM with community members. Through communication with community members, the physician could learn about their goals for FGM and the values that make this practice important. The main value of the physician in this case is improving the health of the community members. She also values protecting her own moral integrity by not encouraging the harmful practice of FGM.

Norms

The central ethical norm in this case is beneficence. The principle of beneficence aims to maximize benefits and minimize the harms that result from interventions. The primary potential medical benefit of the initiatives—handing out sterile scalpels and providing tetanus shots—is a reduction of the rate of infections that result from FGM. An additional potential benefit is the encouragement of communication about the practice of FGM, which could eventually lead to its elimination. One potential harm of the initiatives is that they may encourage the continuation of FGM and create the perception that the physician agrees with this practice. If the physician does not agree with FGM as it is practiced in the community because of the adverse medical effects of the procedure, handing out scalpels and providing tetanus shots may undermine her opposition to the practice. She will ultimately need to get more information about FGM from the community before she can accurately balance the risks and potential benefits of the initiatives.

The professional norm important in this case is that of performing interventions and providing treatments that are medically indicated and promote health. These initiatives are medically indicated in that they decrease the girls' risk of developing an infection following FGM. As preventive measures, they promote health. However, they do not address other adverse consequences of FGM, especially risks during childbirth, which can be very serious. If the initiatives legitimate FGM and encourage its

continuation, then they may not be promoting the long-term health of community members.

Legally, it is important for the medical aid worker to know that female genital mutilation has been outlawed by the United Nations. While she is not directly participating in the FGM rituals, she should make sure that her opposition to this practice is known and that the initiatives are not perceived to be encouraging FGM.

Limitations

The main limitation for the physician in this case is that she is only staying in the community for six months. This may not be adequate time to gather information about FGM, become trusted within the community, and begin encouraging community members to stop this practice. The physician also may not have adequate time to assess whether or not the initiatives are effective in achieving the goals of making the practice of FGM safer and encouraging communication. One significant limitation within the community is that community members lack health care resources. They have been relying on the medical aid organization for tetanus shots and sterile scalpels. Without these initiatives, the community will continue to practice FGM, but will do so in a way that is less safe for the girls who undergo the procedure.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The question that the physician is trying to answer in this case is whether she should participate in initiatives to hand out scalpels for FGM procedures and provide tetanus immunizations to girls planning to participate in these rituals. There are several things she needs to learn from the community before making a final decision. For example, she should investigate the adverse medical effects of FGM in the community, as well as the impact of the initiatives on these effects so far. She should also determine if the initiatives encourage communication with community members about the practice of FGM. In addition, she should learn about the values of the community members with respect to this ritual so that she can try to understand the cultural benefits of this practice. While all these facts will be important in her final decision, the physician can preliminarily examine her options. This justification focuses on the physi-

cian's options without specific knowledge of the community's FGM rituals. Her two basic options at this point are to continue the initiatives or to stop them.

The first step in justification is to determine whether the options will be effective in achieving the goals of the intervention. There are two short-term goals for the initiatives: medical effectiveness and communication. In order to determine if the initiatives are medically effective, the physician could speak with local medical personnel about whether they have experienced a decrease in infection rates since the initiatives have been in place. She could also ask them if she will be allowed to communicate with the girls who are planning on participating in this procedure, their families, and the women who perform FGM. If the physician cannot ask someone about effectiveness, she could continue the initiatives for a trial period to determine if they are effective with respect to the goals that she has identified. Not participating in the initiatives may achieve the goals of the physician. She may still be able to communicate with community members, discouraging FGM, thereby improving the health of women in the community in the future. However, not participating in the initiatives could negatively influence the relationship between the physician and the community, closing off communication and having no impact on the community's practice of FGM.

The next step in justification is to determine if the benefits of the options outweigh their infringement on the identified values and norms. The option of participating in the initiatives will likely be beneficial in that it will decrease the rate of infections following FGM procedures. This option has the potential to infringe on the physician's value of protecting her own moral integrity if she feels that her participation is encouraging or legitimating FGM. This option may also infringe on the professional norm of providing interventions and treatments that encourage health because it will not affect some of the serious health risks of FGM. It could infringe on international law if perceived by authorities to be encouraging FGM. The option of not participating in the initiatives has the benefit of separating the physician from a practice that she disagrees with. In addition, if she chooses this option, she will not have to worry about infringing on international law. However, this option could infringe on beneficence in that the physician would not be minimizing harm to the girls who are going to have FGM procedures regardless of if there are teta-

nus shots and sterile scalpels available. Similarly, it may infringe on the professional norm of providing interventions and treatments that encourage health, because it would not be protecting the girls who participate in FGM from infections. In addition, it may create a barrier to communication between the physician and community members if they feel that she is judging their practice unfavorably. The physician has not yet identified the values and norms of the community, which may be one of the outcomes if the initiatives encourage communication. As community values and norms are identified, the physician should revisit the question of proportionality to determine if the chosen option infringes on the values and norms of the community.

The next consideration in justifying the options is whether infringement on values and norms is necessary, and if so, how it can be minimized. If the option of participating in the initiatives is effective in opening up communication between the physician and community members about their practice of FGM, then it may not infringe on the physician's value of protecting her moral integrity or on international laws banning FGM. However, communication will take time to establish, so this option may initially infringe on these norms. The physician can minimize these risks by making her opposition to FGM known to the community from the beginning. The option of not participating in the initiatives will necessarily infringe on the norm of beneficence, at least in the short term, because the girls who have FGM procedures will be at higher risk of infection than they would be if the initiatives were in place. The physician could minimize infringement on this norm by making sure that she has adequate supplies for treating infections as well as the other complications that result from FGM.

Finally, it is important to determine if the stakeholders would be comfortable sharing their decision-making process with others. The physician in this case is making a decision about whether or not to participate in initiatives that may encourage or legitimate a cultural ritual that she disagrees with. If she chooses the first option and it encourages communication with the community, negotiation with those who practice FGM, and safety for the girls who participate in this ritual, then she would likely be comfortable sharing this decision with others. This option would allow the physician to walk the fine line between respecting a cultural practice and voicing concern about its harmful effects. If she

chooses to stop handing out sterile scalpels and giving tetanus shots because she believes that participating in these initiatives violates her personal integrity as well as professional and legal norms, then she should be comfortable sharing this decision. However, it is important for her to consider that this option will probably not be effective in discouraging FGM, because it has little likelihood of encouraging communication with community members.

CASE COMMENTARY

Medical aid workers may encounter situations in which they disagree with a cultural value or practice in the area where they are serving. In cases like this, it is important that medical aid workers put the situation into perspective. Cultural rituals are often deeply ingrained in community life and have been practiced for generations. It is unrealistic to believe that an outsider visiting a community for a few weeks or months would have the influence to significantly change or eliminate this type of practice.

The United Nations, which has been working for more than a decade to eradicate the practice of FGM, emphasizes the need for sustained, community-led, multi-sector interventions for the successful elimination of this practice. The UN recognizes that the eradication of FGM is not something that will happen immediately or result from the intervention of one medical aid worker. While medical aid workers have important roles in raising awareness about the harms of traditional practices like FGM in the communities where they serve, they should not expect to be the only players in the effort to eradicate FGM. Participation in initiatives that make practices like FGM safer and allow for a conversation to begin about both the benefits and harms of the practice may be the best option for temporary medical aid workers, even if their ultimate goal is to eliminate the practice altogether.

CHAPTER 3

Norms

Norms are standards of behaviors derived from ethical, professional, and legal guidelines. As illustrated in the previous cases, multiple norms are important in the analysis of every ethical issue. Norms can also serve as the source of, or contribute to, ethical issues when they conflict with each other in such a way that they support different, mutually exclusive options. For example, a patient who presents to the hospital with abdominal pain and fever is found to have perforated appendicitis. The surgeon tells the patient that she needs surgery, but the patient refuses consent for an appendectomy. The norm of beneficence, or maximizing benefits and minimizing harm to patients, is most consistent with doing the surgery. However, the norm of respect for autonomy supports not doing the surgery. The stakeholders in this case must determine if these two norms can be reconciled, or which norm should take precedence in order to make a decision about what to do.

The nature of international medicine increases the likelihood of conflicts among norms, because medical aid workers serve in areas with different legal and professional guidelines. In addition, patients and local medical personnel are often not familiar with Western norms of bioethics and may have their own bioethical norms or their own interpretations of Western bioethical norms. When faced with ethical issues in international medicine, it is essential that medical aid workers not only identify their own norms, but also identify norms important to patients and local medical personnel so as to take these into account in the decision-making process.

Disagreements about Bioethical Norms

The bioethical norms familiar to medical aid workers from developed countries are commonly described in terms of the principles of respect

for autonomy; beneficence; nonmaleficence; and justice (Beauchamp and Childress 2001). Respect for autonomy requires that physicians inform patients about their medical conditions and options for intervention so that patients can make informed decisions about their care. Beneficence is the duty of physicians to maximize benefits and minimize harm to patients. In practice, beneficence requires physicians to determine the risks and potential benefits of interventions so that they and their patients can decide whether or not there is an appropriate balance between the two. Nonmaleficence requires that physicians do not perform procedures or prescribe treatments that exclusively cause harm to patients. Justice dictates that the benefits and burdens of medical care and research are fairly distributed at a societal level. In addition to these norms, relationality, which states that relationships are important and should be respected, is an important bioethical norm, especially in the setting of international medicine (DuBois 2008).

While most people can agree upon the general idea of these principles, they often disagree about how these principles should be interpreted and applied in specific cases. For example, most people would agree that donated organs should be distributed fairly among those who need them. However, there would certainly be disagreements about what constitutes fair distribution of organs. Some may believe that organs should go to the sickest patients, while others might believe they should go to those most likely to benefit or to those who have been waiting for the longest time.

In international medicine, patients and local medical personnel are often unfamiliar with Western bioethical norms. Even when they are familiar with these norms, they may flatly disagree with them, or interpret them very differently than do medical aid workers. The following case illustrates a situation in which the stakeholders disagree about the bioethical norm that should take precedence.

Case 3.1: Veracity and the Dying Patient

A medical aid worker from the United States is working in an oncology unit at a Russian hospital. The unit has two full-time Russian doctors and three nurses for forty patients. One of the patients on the ward is an eighty-year-old woman who was diagnosed with stage IV bladder cancer several months ago. The nurse who has been attending to the patient tells the medical aid worker that they have admitted the woman to the

hospital for pain and symptom control several times, but have not told her about her diagnosis or prognosis. The medical aid worker asks why they have not told the woman this information, and the nurse replies that they do not disclose cancer diagnoses to patients because it can be emotionally damaging. They have informed the woman's daughter of the diagnosis, and she is in charge of making medical decisions.[1]

The medical aid worker goes in to see the patient. She is weak, but manages to engage in a conversation with him through an interpreter. They discuss her level of pain, which she says is manageable, and talk about the side effects that she has been experiencing from the medications—nausea and vomiting. She says that the side effects are tolerable, especially because she knows that she will be finished with the medications soon and can return home with her daughter. The medical aid worker believes that the woman will probably die in the hospital in the next couple of weeks rather than getting better and returning home.

It is clear from their conversation that the woman is unaware of her diagnosis and prognosis. In the United States, patients are usually told about their diagnoses and prognoses, unless they specifically request not to know. The medical aid worker thinks that informing patients with cancer about their condition is the right thing to do, and he wonders whether or not he should disclose the diagnosis and prognosis to this patient while she is under his care.

CASE ANALYSIS

In this case, the medical aid worker wants to inform the patient about her diagnosis and prognosis in order to allow her to make decisions about her care. The local medical personnel do not want him to do this, because they do not routinely inform cancer patients about their diagnoses and prognoses. The medical aid worker must decide whether he should inform the patient based on the Western norm of respect for autonomy or continue to keep the prognosis and diagnosis from the patient based on the Russian conception of beneficence.

Stakeholders

The four central stakeholders in this case are the medical aid worker, the patient, the nurse, and the patient's daughter. Additional stakeholders include the Russian doctors and the other nurses in the clinic.

Medical Facts

The medical aid worker, the nurse, and the patient's daughter are aware of the patient's medical condition. She has terminal bladder cancer and will die soon. She has failed attempted treatments and now is being treated for comfort rather than cure. The medical staff recognizes the patient's daughter as the medical decision maker in this case. The daughter is likely in agreement with the nurse in fearing that the woman will become emotionally distraught if she is informed of her diagnosis and prognosis, and that the stress of this information will hasten the patient's death. The patient does not know what her medical condition is or why she is being treated. It is unclear whether she wants to know more about her prognosis and diagnosis.

Goals and Values

The goal of the medical aid worker, the nurse, and the daughter is to do what is best for the patient as she is dying. The patient's goal is to return home with her daughter, which the other stakeholders know is unlikely, given her condition. The medical aid worker values informing patients about their medical conditions so that they can make decisions about the course of their care and prepare for death. This is a reflection of the culture of Western biomedicine, which values patient knowledge and decision making. The nurse and daughter both focus on the value of preventing emotional distress to the patient. This reflects the culture of Russian medicine, which values the protection of fragile, dying patients. The patient's values are not clear from the case presentation but would be important for the other stakeholders to elicit in their analysis.

Norms

The bioethical norms of respect for autonomy, nonmaleficence, beneficence, and relationality are all important in this case. Respect for autonomy requires that physicians disclose diagnoses and prognoses to competent patients unless patients express a desire not to know. The default position in Western biomedicine is to inform patients about their medical conditions. Nonmaleficence requires that physicians do not intervene in ways that are exclusively harmful to patients. Beneficence requires that physicians maximize benefits and minimize harm

to patients. Because stakeholders disagree about the potential harms of informing versus not informing the patient, it is especially challenging to determine which option is most consistent with the norms of beneficence and nonmaleficence in this case. The norm of relationality is also important in this case. The relationship of the daughter to the patient as her child as well as her medical decision maker should be respected.

The professional norm important in this case is that of therapeutic privilege. Therapeutic privilege allows medical personnel to withhold medical information from a patient if they believe it will negatively impact the patient's medical condition. Therapeutic privilege is a norm in the Russian hospital, where they do not disclose cancer diagnoses to patients. It is no longer an accepted norm in Western medical practice. Currently, the norm of Western biomedical practice is disclosure of diagnoses and prognoses to all patients, even those with cancer or other terminal conditions, unless the physician is specifically asked not to do so by the patient. In addition to professional guidance, legal guidance from the United Nations states that therapeutic privilege should no longer be supported as a norm of professional behavior (IBC 2008).

Limitations

One limitation in this case is time, because the patient is probably going to die in the next couple of weeks. The medical aid worker is also limited by the peripheral role that he is playing at the hospital as a temporary volunteer rather than a permanent physician. If he is only serving for a week or two, it is unlikely that he will develop a strong relationship with this patient that is similar to those she has with the Russian doctors and nurses. He is also limited in his understanding of the culture of Russian medicine.

ANALYSIS AND JUSTIFICATION OF OPTIONS

There are a few options for the medical aid worker in addressing his concern about the woman not being aware of her diagnosis and prognosis. At the extremes, he could either inform her or continue to keep her diagnosis and prognosis a secret. An intermediate option would be to speak with the nurse and the daughter to learn more about why they do not want to inform the patient and to determine if they will allow him

to speak with the patient about whether or not she wants to know more about her condition. The justification of these three options is explored in this analysis.

The first step in justification is to determine whether the option will be effective in achieving the goal. In this case, the general goal could be defined as doing what is best for the patient. The problem with this goal is that there is disagreement among stakeholders about how best to achieve it. If the medical aid worker decides not to inform the woman, his action would be effective from the perspectives of the nurse and the daughter. If he does inform her, his action would be effective from his perspective. If he decides to continue the discussion, the stakeholders may be able to come to an agreement about the most effective way to achieve their goal.

The next step in justification is to determine if the benefits of the option outweigh its infringement on the identified norms and values. According to the nurse, the option of not informing the patient has the potential benefit of avoiding emotional distress. It infringes upon respect for autonomy as interpreted by the medical aid worker, because the patient is not being given the information needed for her to participate in decisions regarding her care. It may infringe on beneficence if the potential harms of withholding information outweigh the potential benefits. In addition, it infringes on the professional norm of the medical aid worker, which requires physicians to tell patients about their condition unless patients request not to be given this information.

The option of informing the patient has the potential benefit of giving the patient knowledge about her condition and letting her make decisions about her medical care, if there are any to be made, as well as to make other decisions in preparation for death. If she does not want to know about her diagnosis or prognosis, then telling the patient about her condition would infringe on respect for her autonomy. This option also infringes on relationality because the medical aid worker would be informing the patient against the wishes of her daughter, who is also her medical decision maker. Making the unilateral decision to inform the patient would fail to respect the relationship between the mother and daughter. This option may also infringe on the norms of beneficence and nonmaleficence if giving the woman information about her condition does in fact cause emotional distress with little or no benefit.

The third option of talking to the nurse and daughter about why they do not want to inform the patient and determining if they will allow the medical aid worker to speak with the patient about what she may want to know about her condition has the potential benefit of achieving consensus among the stakeholders. It may also be a step in the direction of changing the professional norms at the hospital to encourage greater disclosure of medical information to patients. This option respects relationality by involving the daughter in the discussion. It also allows the medical aid worker to explain to the other stakeholders why informing the patient may be important and for the nurse and daughter to explain why not informing the patient may be important. Moreover, it respects the autonomy of the patient by allowing her to be involved in the conversation about whether or not to be informed about her condition. Finally, it allows the stakeholders to discuss the benefits and burdens of disclosure and determine what action is most consistent with the norm of beneficence.

The next steps in justification are to determine whether infringement is necessary and, if so, whether or not it can be minimized. The option of not informing the patient necessarily infringes on respect for autonomy. This could be minimized if the medical aid worker elicits the patient's values and goals for treatment and encourages the daughter to make medical decisions consistent with them. It infringes on beneficence only if the risk-benefit profile is less acceptable than that of the other options. The option of informing the patient necessarily infringes on relationality because it fails to respect the relationship between the patient and her daughter. It also necessarily infringes on the Russian professional norm of therapeutic privilege. These infringements cannot be minimized if this option is chosen. The final option of engaging the stakeholders in a conversation about informing the patient has the potential to avoid infringing on any of the identified norms and values. If this option does require infringement on an identified norm or value, part of the discussion among the stakeholders should involve determining how best to minimize that infringement.

The final step in the justification process is determining whether the stakeholders would be comfortable sharing their decision-making process with others. If the medical aid worker chooses the first or second option, he has made a decision not to involve the other important stake-

holders in the process. This may not be something that he is comfortable sharing with others, especially if he makes the decision to inform the patient, thereby infringing on the ethical and professional norms identified by the other stakeholders. The third option, of the medical aid worker discussing his concerns about informing the patient with the nurse and daughter and attempting to speak with the patient about her desires regarding disclosure, is a process that he should be comfortable sharing with others. It encourages communication and negotiation, and it has the potential to avoid infringing on the identified norms and values.

CASE COMMENTARY

In this case, the medical aid worker encounters a practice that is not in accordance with his values or the norms of Western biomedicine. While it may be tempting for the medical aid worker to make the unilateral decision to inform the patient of her condition because this is consistent with the ethical, professional, and legal norms that he identifies, there are a couple of reasons why this may not be appropriate, beyond the fact that it infringes on the values and norms of the other stakeholders. First, the medical aid worker does not have a long-standing relationship with this patient and is therefore unaware of her personal values. She may actually not want to know about her condition and be comfortable leaving her daughter in change of making medical decisions. In addition, the patient may not be receptive to hearing her diagnosis and prognosis from a physician she does not know. Without a prior relationship with the patient, it may not be the place of the medical aid worker to disclose this sensitive information to her.

In addition to affecting the care of the individual patient, the medical aid worker may undermine the more general goal of changing the professional norms about informing patients of their conditions in this hospital by informing the patient without first consulting with the local medical personnel. A unilateral decision may anger the local medical personnel, making them less willing to inform dying patients of their diagnoses and prognoses in the future. It may also discourage local medical personnel from allowing the medical aid worker to interact with dying patients. When medical aid workers encounter practices that conflict with their values or norms, it is important that they engage the local stakeholders so as to learn more about the sources of conflict and negotiate about

which action to take. If, after careful consideration, medical aid workers feel that local norms should be changed, communication and negotiation with local medical providers are the best ways to address not only the immediate situation but also to encourage permanent changes in policy. Because medical aid workers only serve temporarily, they should recognize that the local medical personnel have to be involved in decision making in order for permanent changes to occur.

The Challenge of Justice

Justice takes on an entirely different character in international medicine. In developed countries, decisions about the distribution of medical goods and services are generally made on a governmental or organizational level. Physicians in clinical practice are rarely confronted with having to make a decision about how to distribute needed medications or procedures to their patients. The relative abundance of medical goods and services in the developed world allows physicians to make decisions about what care patients require without worrying about whether or not resources to provide that care are available. However, in developing countries, scarcity and lack of access to medical care are a norm. Because clinics and hospitals in developing countries are limited in what they can offer patients, medical aid workers must often make decisions about how best to distribute these limited resources. The following case illustrates a situation in which what is medically indicated may not be consistent with the norm of justice.

Case 3.2: A Young Boy with AIDS

A medical aid worker is spending six months serving in rural Zambia. He is helping run a new home-based care program for children with HIV/AIDS. This program is designed to identify children with HIV/AIDS through screening and diagnostic work-up and then treat them with antiretroviral therapy and antibiotic prophylaxis. The reason for the home-based care is that members of the community have no sustainable, reliable way to get to clinics or hospitals that treat patients with HIV/AIDS.[2]

During her first week in Zambia, the medical aid worker is called to the home of a family in the community because their ten-year-old son is getting progressively sicker. He has not yet been screened by the home-based care program, but after examining him, the medical aid worker

is certain that he has AIDS and is suffering from pneumonia. Without prompt antibiotic and antiretroviral treatment, this boy will certainly die. Because the boy is so sick, the medical aid worker believes that he should be hospitalized immediately. She knows that she can find someone in the village who has a vehicle to bring the boy to the hospital and that she can pay for his hospitalization. However, she wonders if she should send the boy to the hospital, because she might be undermining the home-based HIV/AIDS treatment program and setting an unsustainable precedent for care.

CASE ANALYSIS

This case illustrates a common ethical issue that medical aid workers encounter when serving in developing countries. Medical aid workers have the resources to work around the health care system, getting patients access to a higher level of care than they would otherwise be able to receive. However, going around the health care system is not a sustainable way to ensure that patients have access to the health care they need in the future. Moreover, it can set expectations that medical aid workers will consistently do this with all patients in need. In these situations, medical aid workers have to decide whether or not it is fair for them to work around the health care system, knowing that they cannot do this for all patients.

Stakeholders

The central stakeholders in this case are the medical aid worker, the boy, and his family. Additional stakeholders include other children in the community with HIV/AIDS, the people who are running the home-based HIV/AIDS treatment program, and community leaders.

Medical Facts

While the medical aid worker has not run any diagnostic tests, she is sure that the boy has AIDS and pneumonia. The boy has lost weight and is experiencing fevers, chills, and a cough. The underlying cause of his medical problem is likely the human immunodeficiency virus, which has weakened his immune system and made him susceptible to infection. In order to get better, he needs treatment with antibiotics and antiretrovirals. He probably also needs supplemental nutrition and IV fluids.

His prognosis is poor without treatment and hospitalization. With treatment, he will most likely be cured of the pneumonia. He will require lifelong antiretroviral therapy to control his AIDS. The case does not discuss the effect that the illness has had on the boy and his family, what they believe is wrong with him, or whether they have done anything to treat him. However, the family is obviously concerned enough about the boy's condition that they have called on the medical aid worker for help. They likely fear that the boy will die without intervention, because deaths from AIDS and AIDS-related illnesses are common in Zambia.

Goals and Values

The medical aid worker has two goals in this case. The first is to cure the child's pneumonia and stabilize his HIV infection. The second is to create a sustainable, effective home-based HIV/AIDS treatment program. The goal of the family is for the child to get better. The medical aid worker values both the life of this child and the life of all the children in the community with HIV/AIDS. The family values the well-being of this child above that of other children in the community because of the relationship that they have with him.

Norms

The two bioethical norms important in this case are justice and beneficence. Justice requires that the benefits and burdens of medical care are fairly distributed at a societal level. In this case, the home-based HIV/AIDS program is designed to respond to the community's limited access to health care by bringing antiretroviral drugs to patients rather than bringing patients to hospitals and clinics. By giving this child access to the hospital, the medical aid worker will be working outside the home-based program. The medical aid worker cannot hospitalize every child in the community who has AIDS and pneumonia, so she must determine whether or not it is fair for her to hospitalize this child. Beneficence is a competing norm to justice in this case. Beneficence is the duty of physicians to maximize benefits and minimize harm to their patients. Obviously, hospitalizing the boy to treat him with antiretrovirals, antibiotics, fluids, and nutrition is more consistent with the principle of beneficence than not hospitalizing him.

One professional norm important in this case is the duty of physicians

to be advocates for their patients. Physicians in the United States are generally expected to make decisions that are in the best interests of their patients without considering the impact that these decisions have on other patients. Due to the constraints on resources in developing countries, however, decisions about how to treat one patient may have a real and immediate effect on the care of another patient. In this case, sending the child to the hospital will not take resources away from another child in need, but it might set a precedent that the medical aid worker cannot continue during her six months in Zambia.

The legal norm important in this case is the duty of physicians to treat patients. The medical aid worker has an obligation to treat this patient with the standard of care or to transfer him to a place where he can receive the standard of care if she cannot provide it. The standard of care in the community is home-based treatment or no treatment. However, the standard of care in the developed world would be hospitalization. The medical aid worker must determine if she has a duty to transfer the child to the hospital or if trying to treat him at home is acceptable.

Limitations

The medical aid worker has just started a six-month medical aid mission in Zambia, so she is not limited by time in the treatment of this patient. She is, however, limited by resources. She believes that the boy needs a higher standard of care than she can provide in the community. The community, as a whole, has limited access to medical care. The medical aid worker could get around this limitation for this patient, but would not be able to permanently secure reliable access to hospitals and clinics for all community members.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The medical aid worker has a really tough decision to make in this case. She can either send the boy to the hospital or try to treat him at home. In the developed world, she would send the boy to a hospital without question, because that level of care is both available and standard. Moreover, it would be rare to see a child with advanced AIDS in the developed world, because children with HIV/AIDS are treated with antiretroviral drugs and monitored for infections so as to keep their medical condition under control. The facts that the patient in this case is a child

and that the medical aid worker is new in the community compound the complexity of the decision. This analysis focuses on the medical aid worker as the central decision maker but recognizes that there are additional important stakeholders, including local medical personnel, the patient and his family, and community members who are involved in the home-based HIV/AIDS treatment program. The two general options for the medical aid worker are to send the child to the hospital or treat the child at home.

The first step in justification is to determine whether the option has the potential to be effective in achieving the goals of the stakeholders. The two goals of the medical aid worker are recovery of the child and sustainability of the home-based HIV/AIDS treatment program. The goal of the family is recovery of the child. The option of sending the child to the hospital has the greatest potential to achieve the goal of patient recovery. However, it might undermine the home-based program by going around it to get this child health care. The option of attempting to treat the child at home is likely going to be less effective with respect to his recovery. However, because this option adheres to the home-based HIV/AIDS treatment program, it might encourage the program's long-term sustainability, especially if the child recovers.

The second step in justification is to determine if the benefits of the option outweigh its infringement on the identified norms and values. The primary benefit of sending the child to the hospital is that he will have the best chance for recovery there. However, this option infringes on the norm of justice, because not every child in this condition from this community would have the opportunity to be transported to a hospital for treatment. The community has recognized this deficiency and set up the home-based treatment program so that children can get the care that they need without going to a hospital. The main benefit of treating the child at home is that this option stays within the parameters of the home-based treatment program. If he is treated effectively at home, this will show that the program has the potential to work even with seriously ill children. However, this option has the potential to infringe on the bioethical norm of beneficence, because it has greater risks and less potential for benefits than hospitalization. It may also infringe on the duty of the physician to advocate for patients. In the absence of the home-based treatment program, the medical aid worker would undoubtedly make all

possible attempts to get this child to a hospital for treatment, because that is the most medically appropriate option. This option may also infringe on the legal duty of the physician to provide her patient with the standard of care or transfer if that standard is not available. The medical aid worker would have to determine if the standard of care in the community, namely home-based treatment, is acceptable, given that she could transfer the child to the hospital for a higher level of care.

The next steps in justification are to determine if infringement on norms and values is necessary and whether this infringement has been minimized. The option of sending the child to the hospital necessarily infringes on the norm of justice because there is no reliable, sustainable way to send children with HIV/AIDS to surrounding hospitals when they get sick. If the medical aid worker could set up a reliable, sustainable ambulance service and contract with the nearest hospital to accept patients from the community for treatment, then this option would not infringe on justice, because all patients in a similar condition would receive the same care. If this cannot be done, offering the option of hospitalization to other similarly ill children while relying on the home-based treatment program for care of most of the children with HIV/AIDS could minimize infringement on justice. However, the home-based treatment program was developed to respond to the community's inability to access hospital care, so there may not be a way to set up a hospital transportation system.

The option of treating the child at home would only necessarily infringe on beneficence if the risk-benefit profile were significantly worse than that of hospitalization. If the risk-benefit profiles are comparable, then not only does this option not infringe on beneficence, but it is also in line with the standard of care and the duty of the physician to be a patient advocate. However, the medical aid worker does not believe that the two options have comparable risk-benefit profiles, so this option would most likely infringe on these norms. This infringement could be minimized if the physician attempts to treat the boy at home while reserving the option for hospitalization if he gets significantly worse.

The final step in justification is to determine whether stakeholders would be comfortable sharing their decision-making process with others. In this case, not only should the family be involved, but the medical aid worker should also consult with local medical personnel and leaders in-

volved in the home-based care program if there is time to do so. It is important that the medical aid worker does not make the decision unilaterally, if possible. If she does, she could either unintentionally undermine the home-based program by hospitalizing the child or her own credibility as a caregiver by treating the child at home.

CASE COMMENTARY

The norm of justice, or fairly distributing the benefits and burdens of medical care, takes on a different character in international medicine. First, medical aid workers are often the people who have to decide which patients will receive the limited medical goods and services that they can provide. This often means turning away sick patients. Second, medical aid workers have the resources to work outside the infrastructure of the health care system. There are many reports of medical aid workers bringing patients from developing countries back to the developed world to have medical procedures that they could not get at home, or, as in this case, medical aid workers pulling together resources to get a patient to a nearby hospital or clinic. The central ethical issue in these types of cases is determining whether or not providing short-term unsustainable interventions or onetime ways around the medical infrastructure is acceptable, given that these actions infringe on the bioethical norm of justice.

Competing Professional Norms

Professional norms are the standards of practice and behavior agreed upon by members of the medical profession. These norms are often tricky to identify and, even more frequently, tough to agree upon. There are, however, several sources for professional norms that are well respected. These include guidelines from professional societies such as the American Medical Association (AMA) and specialty societies such as the American College of Surgeons (ACS). It should be noted that not every member of the AMA or ACS agrees with all of the professional norms developed by these organizations and that there are frequent debates regarding these norms, often resulting in changes being made to them. However, these types of norms are generally respected and followed by medical professionals. If nothing else, they provide a starting point for identifying professional standards of practice.

In international medicine, local professional norms can differ greatly

from the professional norms of developed countries. Reasons for this include a practice setting with limited resources, different medical traditions based more on cultural practices than on scientific evidence, and a lack of basic facilities for the provision of care. When medical aid workers either disagree with the standards of practice in the areas where they are serving or insist on adhering to their own standards of practice, ethical issues can arise. The following case illustrates how professional norms can compete with each other in international medicine.

Case 3.3: Medical Student Involvement

A group of six fourth-year medical students and an attending family medicine physician visit a clinic in Haiti for a three-week medical aid mission. The main focus of the group is providing primary medical and obstetric care. All of the medical students have clinical experience in both internal medicine and obstetrics. The clinic where they are volunteering has a small staff of two local nurses and a local doctor. The clinic provides the only medical care for patients in the vast surrounding area, serving an average of one hundred patients per day. The local medical personnel welcome the extra help provided by the medical students and their attending physician. It allows them to make house calls while the aid workers staff the clinic.[3]

After spending the first day learning about the common diseases in the area as well as the appropriate and available medications for treating these diseases, the medical students are prepared to begin working in the clinic. They start seeing patients, making diagnoses and developing treatment plans. The attending physician signs off on the diagnoses and treatment plans made by the medical students without independently examining the patients. Because the medical problems that the patients have are routine, the attending physician is comfortable giving this level of responsibility to the medical students.

When a woman arrives at the clinic in labor, the attending physician is seeing another patient and tells two of the medical students to get her into a room and examine her to see if she is ready to deliver. After wrapping up with his patient, the attending physician checks in with the students, who think that the patient is ready to deliver. The attending physician examines the woman and agrees. It looks like the delivery is going to be routine. Since the medical students have some experience in ob-

stetrics, the attending physician asks them if they want to take charge of the delivery while he continues to see the other patients. While this is an exciting prospect for the students, they are not confident that they are adequately trained to do the delivery and are unsure whether or not they should handle this patient without direct oversight.

CASE ANALYSIS

Medical students doing aid work are often given significantly more autonomy in caring for patients than they have in their training programs at home because of the large volume of patients, less strict regulations for clinical oversight, and the limited number of trained medical personnel to provide oversight. Less oversight can be positive in the sense that medical students are given the opportunity to gain practical experience. However, it can also put patients at greater risk of harm because inexperienced providers are treating them. The medical students are unsure about whether or not they should attempt to deliver the baby without oversight, given their limited experience doing this type of procedure.

Stakeholders

There are several important stakeholders in this case, including the medical students, the patient, the attending physician, and local medical aid workers from the clinic. This analysis focuses on the medical students but considers the other stakeholders when appropriate. In addition to the central stakeholders, the entire community is a stakeholder, as are the institution where the medical students are being trained and the organization for which the group is working.

Medical Facts

The medical facts in this case are straightforward. The woman is in labor and seems to be progressing appropriately. The attending physician believes that the delivery will be uncomplicated. He thinks that the medical students will be able to perform the delivery without his assistance or oversight. The medical students have some experience with obstetrics but have never delivered a baby without oversight. They are unsure about whether or not they are adequately prepared to attempt the delivery by themselves.

Goals and Values

The primary goal for the intervention is to successfully deliver the infant. The stakeholders value both the health and well-being of the infant and the mother. In addition, the attending physician and the students value the educational opportunity that this case presents for the students to gain hands-on experience, which they have not gotten at their home institution.

Norms

The three bioethical norms important in this case are beneficence, respect for autonomy, and justice. In addressing the norm of beneficence, the potential benefits of the procedure can be defined narrowly or broadly. In a narrow sense, the benefits to the mother and infant would be maximized if the attending physician, who has the most experience in labor and delivery, performs the procedure. More broadly, the medical students' education should also be considered a benefit. The more involved they are in the procedure, the greater potential they will have for educational benefit. The risks of the procedure will naturally be greater the more that the medical students are involved because they are less experienced in labor and delivery than the attending physician. Respect for autonomy, or allowing patients to make decisions regarding their care, is also important in this case. The woman is an important stakeholder who should be consulted about medical student participation in the procedure. In the United States, patients are asked if they will allow trainees to be involved in their care and can request that trainees not be involved. Justice, or fair distribution of the benefits and burdens of medical care, is another important bioethical norm in this case. The reason that patients allow medical trainees to be involved in their care, from the perspective of justice, is that they are willing to bear the burden of lower-quality care for the benefit of continuing the medical enterprise into the future. Patients ultimately benefit from trainee involvement in their care because they ensure that high-quality medical care continues in the next generation of physicians. In international medicine, the patients who bear the burden of medical trainee involvement do not necessarily benefit from the trainee's medical education because the trainees are more likely to base their professional practice in their home country rather than in the developing world.

There are two competing professional norms in this case. The first is that physicians and medical trainees are expected to only do procedures that are within the scope of their medical training. In the United States, medical students are often involved in deliveries and sometimes do the procedures themselves. However, they do so under the strict oversight of attending physicians and residents. The woman in this case, by virtue of being poor and living in a developing country, might be subject to a different standard of care than a woman in the United States. Importantly, a different standard of care is not necessary in this case, because there is an attending physician who could perform the delivery, or at least oversee the medical students. However, because there is a large volume of patients, and regulation is less strict, the attending physician is willing to let the medical students do the delivery without oversight. The second professional norm is that physicians have a duty to educate the next generation of physicians in order to continue to be able to provide patients with high-quality medical care. The attending physician sees this delivery as a good hands-on learning opportunity for the medical students.

With respect to legal norms, laws governing the participation of medical trainees in the provision of medical care to patients often are less strict in developing countries. However, this does not change the ethical and professional obligations that medical providers have to their patients or to their trainees.

Limitations

One significant limitation in this case is the students' relative lack of training in obstetrics as compared with their attending physician. Another limitation is that local medical personnel are not staffing the clinic, so they cannot help the students or provide oversight.

ANALYSIS AND JUSTIFICATION OF OPTIONS

There is a spectrum of options for this case, ranging from allowing the medical students to take full control of the delivery to having the attending physician take charge and not involve the students at all. The justification focuses on how to come to a compromise between these two extremes.

The first step in justification of the options is to determine whether or not the option will be effective in achieving the goal. The goal in this

case is successful delivery of the baby. An ancillary goal is to further the practical training of the medical students. The more that the attending physician is involved in the delivery, the more likely it is that the goal of successful delivery will be achieved, but the less likely it is that students will gain practical experience. The more that the medical students are involved in the delivery, the less likely it is that the goal of successful delivery will be achieved, but the more likely it is that the students will gain practical experience. Because they expect that the delivery will be uncomplicated, there may still be a high likelihood of successful delivery with significant medical student involvement.

The next step in justification is to determine if the benefits of the option outweigh its infringement on the identified norms and values. Allowing the medical students to deliver the baby without oversight infringes on beneficence because the students lack experience, which increases the risks of the delivery. If the attending physician leaves to go see other patients, then there is no backup if something goes wrong during the delivery. This option may infringe on respect for autonomy if the patient is either not informed of the medical students' involvement or does not want the medical students to be involved. In addition, the option may infringe on the professional norm of performing medical interventions within the scope of medical training because the medical students would not do this procedure unsupervised at their home institution. This option may also infringe on justice because the woman will take on increased risk by allowing the medical students to do the delivery in order for future patients, most likely in the United States, to benefit from their medical training. The option of having the attending physician doing the delivery has the benefit of maximizing the potential for a successful outcome. It infringes on the professional norm of educating medical students through practical experiences if they are not involved in the delivery at all.

The next step in justification is to ask whether or not it is necessary to infringe on the identified norms and values. Whenever medical students or residents perform procedures, their lack of experience increases the likelihood of harm. If the medical students perform the procedure, it would be necessary to infringe on the principle of beneficence, because the risks would be greater than they would be if the attending physician were to perform the procedure. It would also necessarily infringe on

justice as well as the norm of performing procedures within the scope of training. If the attending physician decides to perform the procedure himself, he would necessarily infringe on the professional norm of educating medical students through practical experience.

The next step in the justification process is to determine how infringement can be minimized. Neither of the extreme options discussed in this section minimizes infringement on the identified norms and values. In order to minimize infringement on the identified norms and values, a balance should be reached that involves medical students in the procedure at a level consistent with their training. Rather than leaving the medical students in charge of the delivery, which could result in harm to the patient, the attending physician should take an active role in the procedure, allowing the students to be involved while at the same time supervising them.

The final step in the justification procedure is to determine whether the stakeholders would be comfortable sharing the decision-making process with others. If the stakeholders are able to agree on an option that involves the medical students in the procedure while having them supervised by the attending physician, they should be comfortable sharing this decision because it balances their obligations to both the patient and to medical education.

CASE COMMENTARY

The involvement of medical trainees in patient care requires balancing the obligations of attending physicians to patients and the obligations of attending physicians to their trainees, regardless of whether this training occurs in developed or developing countries. In developing countries, additional factors may encourage an increased level of medical trainee involvement during clinical experiences. These factors include laws that are less strict, numerous patients, an overwhelming amount of medical need, and a lack of medical providers in the areas where medical students and residents are serving. Even though legal norms are different in developing countries, professional and ethical norms should remain the same. Attending physicians have an obligation to ensure that patients receive competent care from their trainees. They also have an obligation to ensure that medical trainees are involved in care at an appropriate level. In general, medical professionals should strive to maintain the same

standards of practice with respect to trainee involvement in developing countries as they would do in the developed world.

Different Professional Norms

Not only do medical aid workers encounter situations involving competing professional norms, but they also face situations in which they hold themselves to different professional standards while in developing countries. This is often necessitated by limited resources and facilities. However, sometimes the mentality of medical aid work creates these different professional norms. For example, medical aid workers often leave the place where they are serving before all medical needs have been addressed and without ensuring the transfer of care to another medical provider or medical aid group. If this were done in their home countries, medical aid workers would likely be accused of patient abandonment. However, the temporary nature of international medicine has created a culture in which medical aid workers are not responsible for addressing patient complications, ensuring follow-up, or transferring patients to new providers. The following case illustrates a situation in which a medical aid worker questions a professional norm common in international medicine.

Case 3.4: Rural Outreach Clinics

A group of medical aid workers goes to Guatemala for a two-week rural medicine mission. They coordinate their visit with a local church that runs a clinic in the area. The medical aid team plans to do twelve rural medical outreach clinics while in Guatemala. The team members bring boxes of medications with them from the United States so that they will be able to treat patients. About half of the ten medical aid workers are fluent in Spanish, but none speak the Mayan language of many rural Guatemalans, so they have to bring translators with them for the outreach clinics. As the aid workers are driving up to the first clinic site, they see a line of at least two hundred people standing outside the door waiting to be seen.[4]

They start seeing patients, making diagnoses and giving out prescriptions. By lunch time they have seen about 120 patients and have run out of antibiotics for treating amebic dysentery, which is by far the most common diagnosis among these patients. They decide to continue see-

ing patients and offering those with infections prescriptions that they can fill at the clinic, which is ten miles away. At the end of the day, they have seen a total of three hundred patients and have run out of almost all of the medications they brought with them.

That evening, several of the group members are talking about how much of an impact they were able to make in just one day by seeing so many patients. One medical aid worker says that he is not so sure that they are intervening in a meaningful way, because they have no way to follow up with patients to determine if their interventions were successful or to intervene in the future if these patients get sick again.

CASE ANALYSIS

The medical aid worker who questions the meaningfulness of the work in this case brings up a couple of important points. The workers cannot follow up with the patients they have seen, so they will not know whether or not their interventions have been successful. In addition, they will not be able to treat patients who have adverse effects from the medications that they were given. Using the framework of the case analysis method, modified to address the structure of medical aid interventions, the following discussion focuses on the ethical issues associated with this model for medical aid work.

Stakeholders

There are many stakeholders in this case. The medical aid workers and their patients are the central stakeholders. The organizational stakeholders are the local church and the aid organization or medical institution that the medical aid workers represent.

Medical Facts

There are some important general medical facts in this case. First, as evidenced by the line of people, there is great medical need among people living in rural Guatemala. The medical aid team has minimal resources with which to address that need. They have medications but no diagnostic equipment. Even if they were to take blood or urine samples back to the clinic, there would be no mechanism for following up with patients. In addition, they have no medical records that would give them insight into patients' medical histories. Basically, the rural outreach

clinic model is one of interviewing, examining, diagnosing, and treating patients in one visit without any scheduled follow-up.

Goals and Values

From the discussion among the medical aid workers, it seems that the primary goal of this group is to see as many patients as possible in the rural outreach clinics. They are focused on what has been termed the body-count mentality (Dupuis 2004). Because there is no reliable mechanism for following up with patients and tracking outcomes, medical aid groups have adopted this mentality as a proxy for quantifying the impact of their work. However, the goal, more broadly defined, is to help as many patients as possible.

Norms

The important bioethical norms in this case are beneficence and justice. Beneficence is the duty of physicians to maximize the benefits and minimize the harm to their patients. In the case of medical aid work, beneficence is sometimes viewed in a collective manner. Medical aid workers aim to maximize the benefits and minimize the harm to the group of patients they are serving. In addition, because outcomes are so hard to track, the number of patients treated is often used as a proxy for the amount of benefit provided by medical aid teams. Justice is the fair distribution of the benefits and burdens of medical care and research at a societal level. In this model of medical aid intervention, patients are seen on a first-come, first-served basis. The medical aid workers are unable to triage patients due to the shear volume. Therefore, while distributing medical care on the basis of a line might be one way to ensure fairness, some may argue that a more appropriate approach would be to triage by acuity of illness or the potential for cure.

The professional norms important in this case are the body-count mentality of international medicine and the outcomes-based mentality of medical care in the developed world. As discussed above, the body-count mentality is the practice of quantifying the benefit or impact of medical aid work using the number of patients treated. It is a numbers game, with the basic idea being that the more patients seen, evaluated, and treated, the more the impact on the overall health of the area where a medical aid group is serving. The body-count mentality does not mea-

sure outcomes or complications. On the other hand, medical practice in the developed world is very focused on outcomes and quality improvement. Morbidity and mortality are closely monitored. For example, many surgery departments in the United States participate in the National Surgical Quality Improvement Program (NSQIP), which quantifies risk-adjusted morbidity and mortality rates in participating institutions (Itani 2009). Through quality improvement initiatives such as NSQIP, medical providers in developed countries are continuously changing their practices to improve the quality of patient care and patient outcomes.

An important legal consideration in this case is the level of responsibility that medical aid workers have for the outcomes of the patients they treat in rural outreach clinics. In this model of international medicine, medical aid workers see patients once and treat them without any plans to follow up. If a patient has an adverse reaction to a medication or takes a medication inappropriately, the medical aid workers have no way of knowing this or of intervening to resolve the issue. Because of the temporary nature of medical aid work and its location in developing countries, which are less litigious toward physicians, medical aid workers may not be considered legally responsible for their patients' complications.

Limitations

There are several limitations to consider in this case. The first limitation is time. The medical aid workers are spending only a couple of weeks in Guatemala, so they will not be able to provide long-term care for the patients they see. Second, the patients the medical aid workers encounter have limited access to health care. This may be their only opportunity to see a doctor for several years. Another important limitation is the ability of the medical aid workers to communicate with patients. Because many of the patients speak Mayan, the medical aid workers need translators for Mayan to Spanish and then from Spanish to English, which makes taking a history very challenging. Information can be lost or changed in translation, especially when translators are not trained in medical terminology and when multiple translations are needed.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The medical aid workers in this case have two basic options: either to continue their current model of medical intervention or to redesign

the model. The group already has its itinerary and is in the country for only two weeks, so redesigning the model at this point in the mission might not be appropriate. However, the medical aid workers could work toward changing the model for future medical aid groups. This analysis compares the body-count mentality model to an alternative model that focuses on infrastructure, record keeping, community involvement, and outcomes monitoring. An alternative model could be designed so that medical aid workers help in an established clinic, keep paper records or set up a computerized record system, train local people to be health liaisons to the community, and implement a system for monitoring outcomes.[5]

The first step in justification is to determine whether or not the option will be effective in achieving the goals of the intervention. In this case, the goal of the medical aid workers is to help as many patients as possible. The body-count model is effective in achieving this goal in the sense that it maximizes the number of patients that the medical aid workers see and treat. The basic logic behind this model is that the more patients seen by medical aid workers, the more patients who are helped. The alternative model will decrease the number of patients that the medical aid workers are able to see, because those workers will have to spend more time documenting medical records, training community members to be health liaisons, and developing a system for monitoring outcomes. On the other hand, because it increases the amount of time spent with each patient, it has the potential to improve the quality of care on a per-patient basis. This option might be effective in achieving the goal of the medical aid workers in a different way than the body-count model. Over the long term, this model has the potential to create a sustainable infrastructure for the delivery of health care, so patients will continue to be seen and helped even after the medical aid workers leave. In addition, it will allow clinics to monitor the quality of interventions and develop ways to improve the quality of patient care.

The second step in justification is to determine whether or not the benefits of the intervention outweigh its infringement on the identified norms and values. The primary benefit of the body-count model is that medical aid workers can maximize the number of patients they see and treat. This gives them a concrete indicator of how many people they are potentially benefiting. This option may, however, infringe on the bioethi-

cal norms of beneficence and justice. Beneficence requires maximizing the potential benefits and minimizing the risks of interventions. In the body-count model, the focus of patient care is on quantity rather than quality. Rushing to see hundreds of patients per day increases the risk that more patients will be misdiagnosed and incorrectly treated. This model may infringe on justice, which is the fair distribution of medical care, because it makes the choice of whom to treat based on a patient's place in line. It is likely that many of the patients seen by medical aid workers have minor problems that could be addressed by local medical personnel or health liaisons in the community (if they exist). A more just approach may be for medical aid workers to see patients with complex medical problems that are difficult for local medical personnel to address while deferring the straightforward cases to the existing medical system. The body-count model also infringes on the professional norm of outcomes-based monitoring. In the developed world, physicians and medical systems focus on patient outcomes to drive continuous quality improvement and evidence-based medicine. The body-count model does not monitor outcomes, so it is unable to improve interventions or patient care in this way. In addition, without measuring outcomes, this model cannot truly quantify how many patients benefit from interventions and to what extent they benefit. Finally, the body-count model may infringe on the legal responsibility of physicians to treat complications that arise from their medical interventions. Medical aid workers who see patients one time, without any plan for follow-up monitoring, currently have no responsibility for addressing the complications that arise from adverse events (such as an allergic reaction to a medication). This practice would not be acceptable in the developed world.

One benefit of the alternative model for medical aid work is that it will likely result in higher-quality care for each patient seen by medical aid workers. In addition, if the medical aid workers focus on building infrastructure and training local health liaisons, their model will be sustainable after they leave, so more patients can be helped over the long term. This option could infringe on the medical aid workers' value of helping those in need, because spending more time with each patient, documenting encounters, and training local health liaisons means that the medical aid workers will have to turn patients away. This model also infringes on the body-count mentality of international medicine. If the

medical aid workers see and treat fewer patients, then they may be perceived by their organization or by donors as doing less good than groups who see more patients. By deviating from this professional norm, the value of their work could be questioned.

The next steps in justification are to determine whether it is necessary for the option to infringe on the identified values and norms, and if so, how to minimize that infringement. As discussed above, the body count model necessarily infringes on beneficence and justice. If it is logistically impossible to change the intervention model in the midst of the trip, then the medical aid workers have no choice but to continue with the rural outreach clinics. This option necessarily infringes on the outcomes-based professional norm of medical practice in the developed world because it does not even try to monitor or improve patient outcomes. In addition, it infringes on the legal responsibility of medical practitioners to address adverse events in patients resulting from treatments and interventions. Infringement on the outcomes-based mentality could be minimized if medical aid workers are able to implement an outcomes monitoring system in each community where they hold a clinic. This would be very challenging, given the lack of medical infrastructure in these areas. Infringement on professional responsibility could be minimized by having the medical aid workers return to the villages and follow up with patients either during their mission or on subsequent missions. Alternatively, they could coordinate follow-up with the next medical aid group that visits the area.

The alternative option necessarily infringes on the professional norm of the body-count mentality in international medicine. The medical aid workers will have to see fewer patients and spend more time on building infrastructure and training community members to be health liaisons. Infringing on the body-count mentality in order to create a sustainable, higher-quality health care system is a reasonable trade-off, so the medical aid workers should not try to minimize this infringement. It is important for them to keep in mind that they have the ability to improve the health of more people by creating a sustainable system that is available to patients after they leave than if they work outside of the health care system, providing onetime interventions without follow-up or outcomes monitoring.

The final step in justification of the options is to determine whether

the stakeholders would be comfortable sharing their decision-making process with others. In particular, the medical aid workers would have to justify their decision to their organization and ultimately to the people who fund their work. The option of continuing with the body-count model would be easy to justify in the sense that it is one of the most common models of medical aid work. It is very easy to quantify the number of patients seen each day and report this back to the organization and donors, so as to show that the medical aid workers are helping a lot of patients. The alternative option may actually be harder to justify to both the organization and donors because the quantification of impact is not as straightforward or as immediate. If the medical aid workers decide to change their model, they will have to develop a long-term plan that includes building infrastructure, tracking outcomes, and training community members as health liaisons. They will have to justify seeing and treating fewer patients during their mission with the prospect of a sustainable health care system that will benefit more patients over the long term. If an alternative option is designed well and communicated effectively, the medical aid workers should be comfortable sharing this decision with others and defending their deviation from the body-count model.

CASE COMMENTARY

Many international medical missions strive for the body count. They have the explicit goal of treating as many patients as possible (Dupuis 2004). The body count provides a tangible outcome measure for medical aid workers and the organizations they serve. Medical aid workers in developing countries serve in areas of immense need, and they are generally not able to help all of the patients who need their services. The body count allows them to conceptualize the impact that they have made during their missions. The body count does not, however, measure patient outcomes. It is based on the number of patients seen in clinic, the number of patients given medications, or the number of operative interventions performed. It says nothing about the number of patients who were successfully treated. It is not, therefore, a measure of benefit, but rather a proxy estimate of benefit. The body-count mentality may reflect a belief that the more patients that medical aid workers encounter, the more that they will benefit, even if some treatments fail.

Beyond the limited use of the body count as a tool for measuring benefits, an emphasis on the body count may contribute to negative patient outcomes. The body-count mentality encourages speed and efficiency rather than efficacy in patient care. Medical aid workers encounter patients who have different cultural beliefs, speak different languages, and often have limited education, all of which make communication difficult. The emphasis that the body-count mentality puts on efficiency encourages medical aid workers to limit the time spent with each patient, thereby further frustrating communication. This may increase the number of misdiagnoses, misunderstandings, or ineffective treatment plans.

In surgical missions, the body-count mentality can also have significant adverse effects on patients. It can encourage surgeons to work exceptionally long hours, leading to fatigue and reduced concentration (Cappello, Gainer, and Adkisson 1995; Patterson 2007; Souers 2007). Moreover, in order to reach their body-count goals, surgeons may choose to operate on patients who are not good candidates for surgery, thereby increasing the likelihood of morbidity and mortality (Dupuis 2004).

Because of the potential adverse effects that the body-count mentality has on patient outcomes, several medical aid workers have suggested a change in focus. For surgical aid missions, Dupuis (2004) suggests concentrating on performing a few operations well and using the opportunity to train local medical providers who can continue the work after the medical aid team leaves. This model encourages sustainable local care that will eventually achieve more interventions than a short-term medical mission. Yeow and colleagues (2002) suggest modifying the goal of surgical teams from benefiting the maximum number of patients to achieving the maximum benefit for each patient. Rather than having the explicit goal of treating as many patients as possible, medical aid workers should adjust their focus to comprehensive patient care, health personnel education, and medical infrastructure development so as to maximize the benefits to the patients they encounter and create sustainable, lasting change in the areas where they serve.

Different Legal Norms

In addition to different bioethical and professional norms, medical aid workers encounter different legal norms. Differences in legal norms do not necessarily create ethical issues. However, when local legal guide-

lines conflict with either legal guidelines from the medical aid worker's home country or international legal guidelines, ethical issues can arise.

In some cases, these legal norms are based on religious law. In the United States, physicians are generally obligated to respect medical decisions based on the religious beliefs of patients, even when those beliefs conflict with the ability of physicians to care for patients (Jonsen, Siegler, and Winslade 2010, 76–80). For example, competent adult Jehovah's Witnesses have the right to refuse blood transfusions, even in cases of imminent death from blood loss (Beauchamp and Childress 2001, 187). Physicians are not, however, required to perform surgeries on Jehovah's Witnesses if those physicians are uncomfortable with not being able to give a blood transfusion if necessary. The following case describes a situation in which a patient requests a procedure that is in accordance with religious law but is not medically indicated.

Case 3.5: Amputation for Sharia Law

Two police officers bring a man to a hospital in Afghanistan where an American surgical aid team is stationed. They explain to one of the attending surgeons that the man has been convicted of robbery and that under Sharia law his punishment is amputation of the right hand. They tell the surgeon that the man has requested that the amputation be done at a hospital and ask if she will perform the procedure. If she does not agree to do the procedure, they are going to bring him back to the police station and do it themselves that day. The surgeon is troubled by this request, because she is being asked to perform a medically unnecessary procedure that will cause significant and irreversible physical damage. However, if she does not perform the procedure it will still be done, in a less sterile environment without anesthesia by an untrained individual, and have a higher risk of morbidity and mortality.[6]

CASE ANALYSIS

Stakeholders

The surgeon, the man, and the police are the primary stakeholders in this case. The man has come to the physician, albeit involuntarily, in an attempt to decrease the risks of serious adverse effects or death from the amputation that will be done regardless of the surgeon's participation. While there is international legal guidance on this type of situation, it

still poses a challenging ethical issue for the surgeon. This analysis focuses on the surgeon's moral dilemma in spite of clear international law.

Medical Facts

In this case, the man does not have a medical problem, but rather is seeking a medical intervention to minimize the risks of harm from an amputation that is required for religious and legal reasons. The amputation would have fewer risks if performed by the surgeon rather than at the police station. The risks of amputation include hemorrhage, infection, permanent disability, and death. However, there is no medical indication for the surgeon to perform the amputation.

Goals and Values

The goal of each stakeholder in this case is somewhat different. The surgeon does not want the man to have an amputation because it is not medically indicated. The man wants to minimize pain and complications from the amputation. The police simply want the amputation to occur and are not particularly concerned about minimizing the risks.

The primary value of the surgeon is to use her medical skills only within the purview of legitimate medical practice. She does not believe that nontherapeutic amputation fits within this purview. The man either values adhering to Sharia law or at the least recognizes that he has no choice but to accept his punishment as determined by Sharia law. The man also values maintaining the functionality of his limb, avoiding serious adverse effects, and avoiding death. The police value observing Sharia law and carrying out punishments in accordance with it.

Norms

The three bioethical norms important in this case are respect for autonomy, nonmaleficence, and beneficence. Respect for autonomy requires that physicians respect and follow the decisions made by patients regarding their medical care. Respect for autonomy also encompasses respect for the religious beliefs and values of patients and for decisions made based on these beliefs and values. However, there are limits to respect for autonomy, one of which is that physicians are not required to perform procedures that are outside the purview of medicine. The norm of nonmaleficence requires that physicians do not perform procedures

that exclusively cause harm to patients without any medical benefit. In the absence of Sharia punishment, the physician would not even consider performing an amputation on a perfectly healthy adult because the procedure itself is harmful and without any medical benefit. The difference in this scenario is that there might be medical benefit in the sense that having the amputation performed at the police station increases the risks of morbidity and mortality. This is why the bioethical norm of beneficence, or the duty of physicians to maximize benefits and minimize harm, is important. The patient believes that he will benefit from having the amputation performed by the surgeon rather than by the police, because he will likely endure less pain, have less disability, and have a lower risk of infection and hemorrhage.

The professional norm important in this case is the obligation of physicians to perform procedures that are within the purview of legitimate medical practice. While some physicians disagree about whether or not certain procedures are within the purview of legitimate medical practice (abortion, for example), many would agree with this surgeon's belief that a nontherapeutic hand amputation is outside the accepted practice of medicine.

The different legal norms in this case contribute to the surgeon's uncertainty. Sharia law, which mandates amputation as a punishment for robbery, is the basis of legal norms in Afghanistan. However, international legal guidelines prohibit physicians from engaging in certain punishments of prisoners (OHCHR 1982). This case illustrates a situation in which the physician would not be allowed to participate in prisoner punishment according to international law.

Limitations

There are no limitations to the man's ability to adhere to the amputation. To the contrary, both the man and the police make it clear that the amputation is going to happen whether or not the surgeon performs it. The surgeon has access to the resources and facilities necessary to carry out a successful amputation.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The options that the surgeon has in this case are to perform the amputation requested by the man or not to perform it. The first step in justifi-

cation of the options is to determine whether the option will be effective in reaching the identified goals. If the surgeon decides to perform the amputation, she will be able to achieve the goals of minimizing adverse effects, minimizing pain, reducing the risk of death, and amputating the hand. She will not achieve her own goal of not having the amputation performed at all. If the surgeon does not perform the procedure, then it will be left to the police. The amputation by the police will most likely result in more severe pain, more prominent disability, and more severe adverse effects. Moreover, the man has a greater likelihood of dying if the police do the amputation. By not performing the procedure, the surgeon will not achieve the goal of minimizing adverse effects, pain, or the risk of death, but will still be allowing the amputation to occur.

The second consideration in justifying the options is whether or not the benefits of the option outweigh its infringement on the identified values and norms. If the surgeon decides to perform the amputation, she will benefit the patient by providing a safer, less painful procedure that has a lower risk of adverse effects and will probably result in less significant disability. Performing the procedure is also consistent with respect for autonomy because it allows the patient his choice of having the amputation performed by a surgeon rather than by the police. This option will, however, infringe on the ethical norm of nonmaleficence, because the amputation will result in harm to the patient without any medical benefit. It will also infringe on the professional norm of only performing procedures that are within the purview of medicine. Further, this option infringes on international legal guidelines that prohibit medical professionals from being involved in prisoner punishment.

The benefit of not doing the amputation is that the surgeon will not be performing a procedure that is exclusively harmful to the patient. This option adheres to the professional norm of only performing procedures that are within the purview of medicine. In addition, it is in line with international legal guidelines. Not performing this procedure may infringe on the ethical norm of beneficence because allowing the amputation to occur in the police station will increase the risks of pain, adverse effects, and significant disability as compared with performing the amputation in the operating room. It may also infringe on the norm of respect for autonomy—in particular, respect for the religious beliefs of the patient. However, one important limit to patient autonomy, with re-

spect to this case, is the autonomy of the medical provider. Physicians are not obligated to perform procedures that contradict sound medical practices, even when these procedures are requested by competent patients (Jonsen, Siegler, and Winslade 2010, 98). In this case, the physician would be justified in infringing on the autonomy of the patient to make medical decisions based on his religious beliefs for two reasons: the requested procedure contradicts sound medical practices, and the man will still be able to have his hand amputated without the surgeon's intervention. This option does not infringe on the legal norms of Sharia law because the police will amputate the man's hand regardless of the surgeon's involvement.

The third consideration for justification is whether infringement on the identified norms and values of the stakeholders is necessary to achieve the desired goal. Whichever option the surgeon chooses will necessarily infringe on some of the identified norms and values. The only way to prevent infringement would be to convince the police and the man that the amputation should not be done, which seems unlikely in this case.

The next consideration for justification of the options is whether or not the level of infringement is minimized. If the surgeon chooses to perform the amputation, there is nothing that she can do to minimize the infringement on nonmaleficence or on the identified legal and professional norms. She will be harming the patient as well as violating professional and legal norms. If the surgeon chooses not to perform the procedure, she can minimize the infringement on the principle of beneficence by offering postamputation care to control bleeding and prevent infection.

The final consideration for justification of the options is to determine if the surgeon would be comfortable in sharing her decision-making process with others. If she chooses to perform the procedure, she would have to explain why she engaged in an activity that is outside the scope of accepted medical practice and prohibited by international law. If she determines that the benefits of participation are so great that they can justify these infringements, then she should be willing to share this reasoning. If she decides not to perform the procedure, her explanation for choosing this option would rely on adherence to international law and professional norms. Of the two options, the one that better achieves the criteria for justification in this case is that of not performing the procedure.

CASE COMMENTARY

In addition to international legal guidelines, some medical aid organizations have policies regarding medical aid worker participation in Sharia punishment. For example, the International Committee of the Red Cross (ICRC) refuses to allow any medical aid workers to participate in this practice or even to provide logistical support for it (such as operating room space or sterile instruments) (Perrin 1999). Médecins Sans Frontières (MSF) also opposes amputations for the purpose of Sharia law. MSF, like the ICRC, does not totally oppose Sharia law, but only the corporal punishment that is permitted under it, such as stoning and amputations. MSF aid workers are not allowed to participate in amputations for Sharia law in any capacity (for example, preparations, provision of instruments, or the procedure itself) (Nolan 1999).

The surgeon's decision in this case is challenging because she knows that if she does not perform the amputation, then it will still happen, and will happen in much less satisfactory conditions. In cases like this, the medical aid worker should familiarize himself or herself with both international laws and the guidelines of the medical aid organization for which he or she is working. Because both international guidance and the guidance of well-respected medical aid organizations clearly state that physicians should not be involved in Sharia amputations, even in situations when the participation of the medical aid worker will limit the complications of the amputation, it would be challenging for the physician to justify participation in this procedure. It is, however, acceptable, and even obligatory in emergent situations, for medical aid workers to treat any complications that result from Sharia amputations.

CHAPTER 4

Limitations

One of the most striking characteristics of international medicine in developing countries is the vast array of limitations faced by medical aid workers and their patients. Many medical aid workers serve in clinics that are barely functioning and have little to offer in the way of supplies. Limitations in facilities, supplies, and equipment in developing countries often force medical aid workers to perform procedures or prescribe treatments that deviate from the standard of care they would adhere to in the developed world. In addition, medical aid workers often have an explicit need to ration medications because the demand is much greater than the supply.

Beyond limitations in resources, medical aid workers in developing countries often serve patients who otherwise have little or no access to health care. The majority of people in developing countries live in severe poverty, with many surviving on less than one dollar a day (WHO 2008). Moreover, developing countries are plagued by a higher burden of disease than developed countries. An additional factor that contributes to patients' limited access to health care is the paucity of well-trained health care providers in developing countries.

Beyond the limitations of developing countries, medical aid work itself has inherent limitations, the most apparent of which is time. Medical aid workers only serve temporarily, for weeks or months, before returning to their home practice. The nature of international medicine requires medical aid workers to leave the areas where they are serving before they can treat all the patients in need of care, or follow up with the patients they have already treated.

Limited Resources

The limitations encountered in international medicine create, or contribute to, a myriad of clinical ethical issues. One issue that comes up

repeatedly in narratives by medical aid workers is the limited supply of medical resources with which they have to work. Medical aid workers often have to decide on how to distribute the limited supply of resources to a patient population with great medical need. In developed countries, there is a relative excess of available medications, so physicians can make diagnoses and give patients prescriptions for their medications with the reasonable expectation that the medications will be available at a pharmacy. However, in developing countries, physicians must make tough decisions about whom to give medications to because they cannot treat every patient who needs them. The following case illustrates how limited medical supplies can create ethical issues in international medicine.

Case 4.1: Chronic Hypertension

A forty-five-year-old man presents to a clinic in El Salvador where medical aid workers are providing free health screenings and medications. This is the first time the man has seen a physician in four years. A medical aid worker examines the man and finds that his blood pressure is 160/100. This is well above the normal range, so the medical aid worker diagnoses the patient with essential hypertension. The medical aid worker asks the man about lifestyle factors that may be contributing to his hypertension. The man reports that he eats a high-salt diet with few fruits and vegetables. He is also a smoker, averaging one pack of cigarettes a day for the past twenty years.[1]

The medical aid worker believes that changes in the patient's lifestyle would have a measurable effect on his blood pressure, but when he suggests that the man quit smoking or change his diet, he is met with resistance. The patient tells the medical aid worker that he enjoys smoking and that all his friends smoke, so it would be impossible to quit. He says that he cannot change his diet because he cannot afford healthy foods like fruits and vegetables. Without lifestyle changes, pharmaceutical intervention is necessary to control the patient's hypertension.

The medical aid worker has a six-month supply of blood-pressure medication that he can give to the patient. Because the patient relies on medical aid groups like this one for care, the medical aid worker is not sure whether a six-month supply of medicine is going to be enough to treat him until the next medical aid group visits. The local pharmacy sometimes carries the blood-pressure medicine, but it is very expensive,

so the patient would not be able to afford to buy more if he runs out. The medical aid worker is unsure about whether he should start this patient on antihypertensive medication without knowing if the patient will be able to continue this treatment regimen when the initial supply runs out.

CASE ANALYSIS

The medical aid worker in this case must decide whether or not to give a patient with hypertension a six-month supply of antihypertensive medications. This case is complicated by the fact that the patient has limited access to health care and will be unable to refill his medications unless another medical aid groups brings more to the area. The two central stakeholders in this case are the medical aid worker and the patient. In addition, the community as a whole can be seen as a stakeholder, because the lack of healthy food and the culture of smoking in the community are contributors to the patient's hypertension. It is likely that many other community members have hypertension, heart disease, or diabetes because of the same risk factors.

Medical Facts

The patient visited the clinic for a general medical checkup and has not been having any symptomatic medical problems. On exam, the medical aid worker found that the patient has high blood pressure. Technically, the diagnosis of essential hypertension would need to be verified at a follow-up visit, but the medical aid worker will not be in the area long enough to follow up with the patient. The medical aid worker wants to treat the patient's hypertension because this condition puts him at risk of myocardial infarction and stroke, both of which are life-threatening conditions. The two general ways to manage essential hypertension are lifestyle modifications and pharmaceutical interventions. One essential element of hypertension treatment in developed countries is follow-up monitoring of blood pressure to determine whether or not lifestyle modifications or pharmaceutical interventions are effective. Often, patients require additional or different medications in order to control their blood pressure, and close monitoring is the only way to determine when this is necessary.

Goals and Values

The goal for the medical intervention in this case is to lower the patient's blood pressure so as to decease his risk of stroke and myocardial infarction. The patient values maintaining his current lifestyle, which eliminates one of the two identified treatment options. He also values his health, but because he is asymptomatic, he probably does not believe that his condition is worrisome.

Norms

The ethical norm of beneficence—maximizing the benefits of an intervention and minimizing the risks—is important in this case. Pharmaceutical interventions have the potential to be effective in controlling the patient's hypertension. However, they can also have unpleasant side effects such as dizziness, nausea, and frequent urination. Moreover, if these medications are taken sporadically, they are not effective in decreasing blood pressure. They can also cause medical problems if stopped abruptly (for example, rebound hypertension).

The professional norm of ensuring that patients are able to adhere to treatment plans is also important in this case. Physicians in developed countries discuss diagnoses, prognoses, and treatment options with patients, and allow patients to decide which option is most consistent with their values and limitations. The same approach to treatment plans should be taken in developing countries, because if physicians unilaterally impose treatment regimens, patients may not want to or be able to adhere to them.

The legal duty to treat patients with the standard of care is an important norm for the medical aid worker to consider in this case. The patient has a chronic, but controllable, medical condition. The medical aid worker has antihypertensive medications that he could give to the man for six months' worth of treatment. In the developed world, if a patient is unable or unwilling to implement lifestyle modifications, then the standard of care is to use an antihypertensive medication and monitor blood pressure at follow-up visits. Although the medical aid worker should not be worried about legal repercussions, he should consider if he would be legally obligated to provide the antihypertensive medications to this patient if he were in his home country, and whether or not the context of the situation changes his legal responsibility.

Limitations

There are significant limitations to both of the treatment options for the patient's hypertension. The patient is not willing to quit smoking or change his diet, meaning that he will not comply with lifestyle modifications to lower his blood pressure. The medical aid worker only has six months' worth of antihypertensive medications. He is not sure that this will be enough medicine for the patient until the next medical aid group arrives or if the next group will even have the same medication available. Furthermore, the patient cannot afford to buy more medication if he runs out before the next group arrives. In addition to limited supplies, the medical aid worker has limited time. This means that he cannot follow up with the patient to determine if the medications are working.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The realistic options that the medical aid worker has in this case are either to give the patient a six-month supply of hypertension medication, hoping that he will be able to get more before it runs out, or not to give him the medication. The medical aid worker could try to counsel the patient further on the importance of lifestyle modifications, but this is unlikely to be effective, since the patient is not motivated to make these changes, and the medical aid worker cannot follow up with the patient to hold him responsible for the changes.

The first step in justification is to determine whether the options will be effective with respect to the goal. The goal in this case is control of the patient's blood pressure. The option of providing the patient with the six-month supply of medications may result in short-term blood-pressure control. However, essential hypertension is a chronic disease that requires long-term control to effectively decrease the risks of myocardial infarction and stroke. Not giving the patient the medications will not result in blood-pressure control, even in the short term. Neither option available in this case is guaranteed to achieve the goal of long-term blood-pressure control.

The next step in justification of the options is to determine whether the benefits of the option outweigh its infringement on the identified norms and values. The option of giving the medications has the potential benefit of controlling the patient's hypertension for a couple of months. It infringes on the norm of ensuring that patients can adhere to treatment plans, because the medical aid worker is not sure whether or

not the patient will be able to continue the treatment for more than six months. This option may also infringe on the norm of beneficence. The risks of giving the hypertension medication include side effects such as dizziness, hypotension, and electrolyte abnormalities, as well as adverse effects from abruptly stopping the treatment, such as rebound hypertension. If the patient takes the medications sporadically in order to make them last longer, they will not be effective in controlling his blood pressure. Not only are there risks to giving the patient the medications, there is also no mechanism for following up with the patient to determine if he is taking the medications, if he is experiencing side effects, or if the medications are effective in controlling his hypertension.

The option of not treating the patient has the benefit of not exposing him to the risks of antihypertensive medications. It may, however, infringe on beneficence. By not giving the patient the medications, there is no potential short-term benefit of blood-pressure control. At the same time, this option does not pose the same risks of adverse effects as giving the medication. This option may also infringe on the legal norm of providing the standard of care, because antihypertensive medications are considered standard for essential hypertension in patients who cannot modify their lifestyle or whose blood pressure does not respond to lifestyle modifications.

The next steps in justification are to determine if infringement on the identified norms and values is necessary, and if so, how it can be minimized. The option of giving the medications necessarily infringes on beneficence in the sense that the treatment is suboptimal. The medical aid worker cannot maximize the benefits and minimize the harm to the patient in the same way that he would be able to in the developed world. He could minimize infringement by explaining the potential side effects to the patient and instructing him to discontinue the medications if they occur. In addition, the medical aid worker could train community members to check blood pressure so that the patient can follow up with them to see if the medications are working. This option also necessarily infringes on the professional norm of making a treatment plan that patients can adhere to. Infringement on this norm could be minimized by communication with the next medical aid group about what medications it should bring and which patients need follow-up.

The option of not giving the medication to the patient necessarily in-

fringes on beneficence because it has a relatively unfavorable risk-benefit ratio. Without hypertension control, the patient is at risk of myocardial infarction and stroke, both of which can be life threatening. Infringement could be minimized by encouraging small lifestyle changes, such as decreasing salt intake or getting more exercise, so as to try to improve the man's blood pressure. The problem with this approach is that the patient may agree to change his lifestyle, but without follow-up the medical aid worker will not be able to determine if the patient has made these changes or if the changes have had an effect on the patient's blood pressure. This option does not necessarily infringe on providing the standard of care, because the medical aid worker cannot provide the standard of care with either option. Hypertension is a chronic disease, so there is not much difference between controlling blood pressure for six months versus not controlling blood pressure at all with respect to the risks of stroke and myocardial infarction.

The final step in justification is to determine whether or not the stakeholders would be comfortable sharing their decision-making process with others. Because the medical aid worker cannot make a plan for the patient to receive blood-pressure medications over a prolonged period, and there is no capacity for monitoring the patient for medication adherence, side effects, and efficacy, he should be reticent about starting the patient on the blood-pressure medication. A six-month course of treatment without any follow-up is useless for the chronic control of blood pressure. If the medical aid worker cannot ensure that the patient will be able to continue an antihypertensive medication regimen with regular clinic follow-up, then he should be comfortable sharing with others his decision not to start antihypertensive medications.

CASE COMMENTARY

This case illustrates one of the major shortcomings of temporary medical aid experiences: they are not designed to address the needs of patients with chronic medical conditions. Because some medical aid missions aim to see patients who do not have reliable access to health care, medical aid workers cannot guarantee that the patients will continue to receive medications and monitoring after they leave. While medical aid workers can offer curative treatments for acute conditions, they cannot provide a lifetime's supply of medications to control chronic

diseases. Medical aid workers should recognize these limitations, consider the risks of providing temporary treatment for chronic diseases, and decide whether or not limited interventions will truly help patients.

If medical aid workers find that a particular chronic disease is rampant in the community where they are serving, they may be able to take steps toward providing appropriate and continued treatment. For example, a medical aid group could return to the same area regularly, bringing supplies of medications that will allow patients to continue treatment. If the individual medical aid workers cannot return to the area, they could work with local medical personnel to provide essential medications for chronic disease management. This can be logistically difficult because it requires a steady supply of medications and education of local medical personnel about these medications. Medical aid workers could, alternatively, bring this need to the attention of their organization so that the organization can arrange regular medical aid missions to the area that ensure a continuous supply of medications to meet the needs of patients with chronic conditions.

Limited Access to Health Care

The patients whom medical aid workers encounter in developing countries often have little or no access to health care. To complicate this situation, developing countries bear a higher burden of disease than developed countries. Limited access to health care creates many medical problems. Patients are often sicker or have advanced diseases by the time they are seen by medical aid workers. In addition, they generally have more comorbid conditions, which can affect or complicate treatment plans. Patients who have limited access to health care often have limited access to other resources such as clean water, adequate shelter, and food. These poor living conditions can contribute to the medical problems of patients and put constraints on treatment options. The following case illustrates a situation in which a patient has limited access to health care and subsists in poor living conditions, both of which complicate the medical aid worker's ability to provide her with optimal treatment.

Case 4.2: Treating Tuberculosis

A twenty-eight-year-old woman complaining of a persistent cough with intermittent hemoptysis, fever, and weight loss presents to a clinic

staffed by medical aid workers in Peru. The medical aid worker that she sees suspects the woman has tuberculosis (TB) and collects a sputum sample. The laboratory confirms that the woman has TB, but that it is a strain susceptible to all first-line medications. In accordance with World Health Organization standards, the medical aid worker plans to start the woman on directly observed treatment, short course (DOTS). He tells her that she must come back to the clinic three times each week for the next six to eight months to receive medications to treat her TB. He also tells her that she needs to sleep in an open room away from others in order to make sure that she does not spread the disease.[2]

The woman tells the medical aid worker that she lives in a small one-room house with her husband and four children and that she does not have an open room to sleep in away from the rest of the family. She also works most days during the hours that the clinic is open, so she can only come to the clinic once a week to take her medications. She cannot give up her job to follow the treatment plan, because she has to help support her family. Given these limitations, the medical aid worker wonders whether or not he should begin treating her for tuberculosis, since it is likely that she will not be able to adhere to the treatment plan.

CASE ANALYSIS

Stakeholders

The two primary stakeholders in this case are the patient and the medical aid worker. In addition, the patient's family and close contacts are stakeholders because they are at risk of contracting TB. The medical aid worker has identified a couple of limitations to the woman's ability to receive optimal treatment for TB. First, she will not be able to comply with DOTS because of her work schedule. Second, she cannot keep herself quarantined from the rest of her family, meaning that she will be putting them at risk of infection and herself at risk of reinfection if they are not treated appropriately. The decision that the medical aid worker and patient must make is whether to implement the standard DOTS treatment plan given the patient's limitations.

Medical Facts

The medical facts in this case are straightforward. The woman has susceptible TB, confirmed by lab testing. DOTS is an effective treatment

regimen for susceptible TB. Without adequate treatment, the patient is at risk of dying. In addition, her family members and close contacts are at risk of contracting TB. The risk of incomplete treatment is that the patient could develop drug-resistant TB, which is more expensive to treat, has a greater likelihood of treatment failure, and has a higher risk of morbidity and mortality. In addition to making sure that he knows all the medical facts, it is important for the medical aid worker to elicit the patient's understanding of her medical condition, because it might differ significantly from what he expects her to believe. Many patients in developing countries believe in supernatural etiologies of disease and use traditional healing practices. The patient's beliefs regarding her disease may impact her willingness to adhere to the DOTS regimen.

Goals and Values

The goal of the medical aid worker and patient in this case is cure of the patient's TB. The patient values her job as a means to support her family. While not discussed in this case, the patient's family likely values her not only as a provider but also as a person they love and want to have around them.

Norms

The ethical norms of nonmaleficence, beneficence, and relationality are important in this case. Nonmaleficence requires that physicians refrain from interventions that are harmful to patients, without a potential for benefit. If the medical aid worker is sure that the patient will not be able to adhere to DOTS, then giving her the medications puts her at risk of developing a drug-resistant infection without the potential for curing her TB. If the medical aid worker is unsure about the patient's ability to adhere to DOTS, he should consider the risks and benefits of starting treatment, trying to maximize the potential for benefits and minimize the risks in order to be consistent with the norm of beneficence. The ethical norm of relationality is important in this case because the relationship that the woman has with her family members is important. She works so that she can help provide for her children. Without her job, she would be unable to fulfill this obligation.

The professional and legal norms important in this case center on the duty of the physician to provide a standard of care. Professional guide-

lines from the WHO emphasize that DOTS is the worldwide standard of care for susceptible TB. In addition, several international initiatives have made DOTS readily available to patients in developing countries. Because DOTS is the standard of care, the physician should consider whether or not he has a legal obligation to begin therapy in this patient, given that she may not be able to successfully complete it.

Limitations

There are two significant limitations to the treatment options in this case. First, the patient lives in a one-room house with five other family members. She cannot separate herself from the rest of the family while they sleep, which increases their risk of contracting TB. In addition, the patient's work schedule will not allow her to visit the clinic three times a week to take her medications.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The options in this case range from starting the patient on the DOTS regimen and insisting that she come into the clinic three times a week, to refusing to treat her because of the likelihood that she will be noncompliant. Neither of these extreme options will be effective in achieving the goal agreed upon by the stakeholders in this case, so they must determine if they can negotiate a compromise that allows the patient to get treatment and continue to work.

The most important determination to make in justifying a treatment plan in this case is to decide whether it will be effective in achieving the goal of successfully treating the patient's TB. In order for the plan to be effective, it must be medically appropriate, meaning that the patient must get the correct medications at the correct intervals. In addition, the plan must be sensitive to the patient's work obligations. If a treatment plan can be formulated to be both medically appropriate and sensitive to the patient's work schedule, then the option will not only be effective, but it will be consistent with the norms and values identified by the stakeholders, so infringement will not be necessary.

If the medical aid worker and the patient cannot agree upon a treatment plan that will be effective, then the medical aid worker will have to decide between providing partial treatment, which might provide some symptomatic relief but not be curative, or not providing any treat-

ment. If these are the only two options for the stakeholders, they should go through the process of justification to determine which one they should choose. The first step is to determine whether either option has the potential to achieve the desired goal. Unfortunately, neither of these two options has the potential to achieve the goal of curing the patient's TB. Both will most likely result in eventual death from TB, although partial treatment may help her to survive for longer or control some of her symptoms.

The next step in justification is to determine whether the benefits of each option outweigh its infringement on the identified norms and values identified in the case. Beginning with the patient's obligations to her family, neither of the options will immediately infringe on the patient's ability to fulfill her obligations to support her family by working. However, her disease will eventually progress to the point where she cannot work any longer, which will probably happen more quickly if she is not treated at all. In addition, she risks infecting both her family and her co-workers by continuing to work and not getting appropriate treatment. The norms of beneficence and nonmaleficence require that the stakeholders determine the risks and potential benefits of the options. The benefits of partial treatment include an increased life expectancy and symptom control. If the patient receives partial treatment, there is a risk that she will develop drug-resistant TB, which is more difficult to treat than susceptible TB. And if she develops drug-resistant TB, there is also a risk that she will spread this infection to her family and other close contacts in the community. If she is not treated, she will continue to exhibit the symptoms of TB and will likely die from the infection. She will continue to put her family and other community members at risk of contracting TB, but not of contracting drug-resistant TB. Both of the options present significant risks to the patient and her family, so neither is ideal with respect to the norm of beneficence.

The next step in the justification process is to determine whether infringement on the norms and values is necessary, and if so, how it can be minimized. Because both of the options will most likely result in the woman's death, they will both eventually infringe on relationality because the woman will not longer be able to support her family. In addition, neither has a favorable risk-benefit profile. While the option

of partial treatment has marginal potential benefits, it also has more-significant risks because of the likelihood that the woman will develop drug-resistant TB, putting her family members and other close contacts at risk of contracting this disease. The option of not treating the woman does not have the potential for even marginal benefits, but it also does not have the risk of creating a drug-resistant infection. Both of these options infringe on beneficence, and this infringement cannot be minimized, given the limitations.

The final step in the justification process is to determine whether or not the stakeholders would be comfortable sharing their decision-making process with others. Because neither of the options that the stakeholders have to choose from is ideal, neither will be easy to share with others, especially the patient's family. However, if there is truly nothing that can be done to negotiate an effective treatment plan (such as changing the clinic hours to accommodate patients who work), then the medical aid worker and patient have to make a decision between two marginal options. If they have an open and honest discussion about the options, they should be comfortable sharing with others the negotiation process, its failure, and the rationale behind their ultimate choice.

Of the two marginal options discussed in this analysis, the option of no treatment would be a better choice in this case versus that of partial treatment, for several reasons. First, if the woman infects others with TB, they will more easily be treated because their infection will not be drug resistant. Second, when she reaches the point of being too sick to work, she can still be treated with the DOTS regimen rather than second- or third-line drugs, which are more expensive and less available. By holding off on treatment, the medical aid worker will increase the likelihood that the woman can successfully be treated in the future and that others who contract the disease can also be successfully treated.

This case takes an extreme position in that it recommends not providing a standard treatment to a patient who has a serious illness. In real situations like this case, medical aid workers should focus on figuring out how to get the patient appropriate treatment, only choosing not to provide treatment if this is absolutely the sole option. There are several strategies that aid workers can implement to provide needed medications, such as having a health care liaison bring medications to the

patient daily or having the patient come to the clinic weekly for a full week's worth of medicine. If the clinic has the supplies to provide treatment, medical aid workers should be able to work with patients to provide appropriate treatments.

CASE COMMENTARY

Socioeconomic and environmental factors can significantly impair patients' ability to access health care and comply with treatment plans in developing countries. This case illustrates how medical aid workers may be left with unsatisfactory options in the face of patient limitations. The complicating factor in this case is that ineffective treatment not only puts the patient at risk of developing drug-resistant TB but also puts her family and other close contacts at risk. In this scenario, drug-resistant TB could spread through the community, exponentially increasing the costs of treatment and decreasing the potential for effective treatment. Partial treatment is not only ineffective at achieving the goal of treating the patient's TB, but is also potentially harmful to the patient and to others that she comes into contact with.

If medical aid workers recognize that treatment noncompliance is a common problem in an area where they are serving, they may be able to make changes that help patients adhere to treatment plans. For example, Partners in Health employs community health workers to visit the homes of patients with AIDS and TB, bringing them their medications so as to ensure compliance (Lyon and Farmer 2005). In addition, this organization has shown that providing food aid along with medication is correlated with a high rate of patient compliance (Farmer 2005; Mukherjee et al. 2006).

When medical aid workers encounter patients who require long-term treatments, it is important that they are aware of the barriers to adherence and that they work with patients and communities to minimize these barriers. They should also recognize that partial treatment can cause significant harm when it has the potential to create drug-resistant strains of diseases that are less easily treated. The notion that any treatment is better than no treatment is not an appropriate mind-set in international medicine, especially when patients risk developing more serious problems with substandard treatments.

Limited Medical Personnel

In addition to limited medical resources and limited patient access to health care, developing countries are plagued by a shortage of trained medical personnel. Measured by the standards of developed countries, the most highly trained medical personnel in developing countries are often untrained or undertrained, having been exposed to medical work through apprenticeships rather than through formal education (Campbell 2003; Leo 2003; Nijssen-Jordan 2007). This problem is magnified because many of the best-trained health care professionals in developing countries move to developed countries to work. This leaves responsibility of providing medical care and performing surgical procedures to less trained personnel such as nurses, clinical officers, and medical assistants (Levin 2007; Nijssen-Jordan 2007; Pham and Tollefson 2007).

Ethical issues can arise as a result of limited, or inadequately trained, medical personnel. For example, the lack of medical personnel, or their lack of training, can create situations in which medical aid workers are the most qualified individuals to perform procedures, even if they would not be considered qualified to do this at home. Especially in emergent situations, medical aid workers may be the only people able to intervene. Given the unfamiliarity that medical aid workers have with some of the interventions they are asked to perform, they must determine when it is appropriate to intervene. The following case illustrates an emergent situation in which a medical aid worker is asked to provide care beyond the scope of his training.

Case 4.3: Protracted and Obstructed Labor

An emergency medicine physician from the United States, serving in Zambia, hears a large commotion outside of the clinic door. When he checks on what is happening, he sees two men running toward the clinic carrying a pole with a blanket tied to it. As they near, he sees that there is a woman lying in the blanket, moaning. The men tell the physician that the woman has been in labor for two days. She seems to have grown weaker and is in a lot of pain, so they decided to bring her in. At the physician's home institution, all pregnant women who present to the emergency department are immediately sent to the obstetrics service, and the only training that the physician has received in labor and delivery was during medical school and one month during his residency. The last

time that he delivered a baby was fifteen years ago. There are no other physicians at the clinic, so he cannot get help or bring in someone more experienced.[3]

Using what little knowledge he has of emergency obstetrics, the physician examines the woman. She has a fever, indicating possible infection. Using his stethoscope, the physician is unable to detect a fetal heartbeat. He does not have a Doppler machine to better assess fetal heartbeat, but he suspects that the fetus is already dead. In order to save the woman's life, the physician determines that the fetus must be removed immediately. Transporting the woman to the local hospital would take three days, during which she would surely die. The physician has access to a textbook of primary surgery, which explains how to perform a cruciate craniotomy, a procedure that he thinks will be necessary to allow him to remove the fetus. He believes that this procedure is the only hope that the woman has for survival, but at the same time, his lack of experience decreases the likelihood that it will be successful.

CASE ANALYSIS

In this case, the medical aid worker must quickly make a decision, so it is unlikely that he will be able to go through the entire case analysis process. However, this book provides the opportunity to fully analyze the case without the time constraints of an actual emergency situation. This section presents a thorough analysis of the case, recognizing that this would not be practical during a real emergency.

Stakeholders

The primary stakeholders in this case are the medical aid worker, the woman, and the fetus (if it is viable). Other stakeholders to consider include the woman's family, community members who will learn about the outcome of the case, and the medical aid worker's organization.

Medical Facts

The important medical facts in this case are that the woman is in serious danger of dying, and the only way to prevent this is by delivering the fetus. From his limited physical exam and the history provided, the medical aid worker believes that the fetus is already dead. The medical aid worker wants to intervene in an attempt to save the woman's life. How-

ever, his lack of experience in emergency obstetric procedures limits his competence to perform the necessary intervention.

Goals and Values

The goal of the men in bringing the woman to the clinic is to get her medical help. They likely desire successful delivery of the fetus as well as preservation of the life of the mother. The medical aid worker, on the other hand, believes that the fetus is already dead, so his goal is to preserve the life of the mother. It is essential that the medical aid worker communicate this to the men and the patient, because if he goes forward with the procedure and delivers a dead fetus, they may believe that he caused the death during the craniotomy.

Norms

Beneficence is an important ethical norm in this case, because the medical aid worker has to weigh the risks and potential benefits of intervention versus nonintervention. A fetal cruciate craniotomy followed by removal of the fetus has the potential to save the woman's life, or at least to be the first step in this process. The risks of the intervention include pain and the potential to hasten the woman's death. Additionally, the men who brought the woman in, or other community members, may not understand that the fetus is already dead and may assume that the medical aid worker killed the fetus during the procedure. Unless the fetus is removed, the woman will not survive.

Two professional norms important in this case are a duty to rescue and a duty to provide competent care. In situations where a physician has the ability to help an individual in need of emergency medical care, he generally has a duty to intervene, unless there is someone more qualified to provide the care or there are significant risks to the physician. At the same time, physicians should generally limit their interventions to those that they have been trained to do in order to ensure that patients receive competent care.

The legal norm of interest in this case is Good Samaritan legislation, which protects health care professionals who provide emergency care from civil liability for damages for any injury they cause or enhance during the provision of that care. The idea of Good Samaritan legislation is that if a physician comes across a person in need of emergency medical

care outside of his clinic or hospital, and he provides the best care he can, given the situation, then he is legally protected from malpractice litigation. While this generally applies to physicians outside of the hospital or clinic, there is case precedent in the United States to support the application of Good Samaritan laws to emergency situations within a hospital (Furrow et al. 2001, 231–34). While Good Samaritan legislation is not likely to be part of the Zambian legal code, the medical aid worker could at least consider whether or not he is able to act in good faith to provide emergency care or if the necessary care is too far beyond his comfortable scope of practice even in an emergency.

Limitations

The most apparent limitation in this case is the lack of trained medical personnel available to respond to this emergency. In addition, there is no nearby hospital available for patient transfer. In the United States, the medical aid worker would be able to transfer the patient to the care of a trained obstetrician. Unfortunately, the medical aid worker does not have this luxury in Zambia, so he must decide whether or not it is appropriate for him to intervene personally. While the case does not describe the state of the clinic, there may be resource limitations that make it difficult or even impossible for the medical aid worker to successfully perform a cruciate craniotomy.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The medical aid worker has two options, which are to intervene, attempting the cruciate craniotomy and removing the fetus, or to refrain from intervening, letting the woman die. If the medical aid worker chooses not to intervene, he could aid with transfer to the nearest hospital, hoping that the patient does not die en route. This analysis assumes that the patient's death is imminent, so transfer is not a realistic option.

The first step in justification is to determine whether the options will be effective in achieving the goal identified by the stakeholders. As discussed above, the medical aid worker and other stakeholders may have different goals for intervention. Before deciding on an option, the medical aid worker should communicate his belief that the fetus is already dead and the best that they can hope for is to save the woman's life, which might not even be realistic. The option of intervening has the potential

to achieve the goal of saving the woman's life, while not intervening will not. Even though the option of intervening has the potential to achieve the goal of saving the woman's life, the medical aid worker's lack of experience, coupled with limited resources in the clinic, may make this potential very small.

The next steps in justification are to determine whether the benefits of the option outweigh its infringement on the identified values and norms, and if the infringement is necessary. The option of intervening has the potential benefit of saving the woman's life. This is a significant benefit, especially because there is no alternative way to achieve it. The intervention also has the risks of causing or hastening the woman's death. This option is consistent with the professional norm of physicians' duty to rescue, but infringes on the professional norm of providing competent care. However, it is important to recognize that, in this case, the medical aid worker is the most competent individual to intervene and that a Good Samaritan law would theoretically protect this intervention, if this type of law exists in Zambia. The option of not intervening has the benefits of not creating a more traumatic situation for the woman and of not hastening her death, but she will certainly die if this option is chosen. This option, while not infringing on the norm of competence, might infringe on the duty to rescue. Because of the limitations in this case, both options infringe on the identified norms and values in some way.

The next step in the justification is to determine whether infringement on the identified norms and values has been minimized, and if it has not, what can be done to minimize it. If the medical aid worker decides to intervene, this choice will infringe on the professional norm of providing competent care. However, if the medical aid worker is the most competent person to intervene and there is no option to transfer the patient or to bring in a more competent provider, then infringement on this norm has been minimized. If the medical aid worker decides not to intervene, this choice will infringe on the professional norm of a duty to rescue. However, if the medical aid worker believes that he is truly unable to intervene in a way that has a meaningful chance of benefiting the patient, then he would not have a duty to rescue.

The final step in the process of justification is to determine whether the stakeholders would be comfortable sharing the decision-making process with others. In reality, the medical aid worker would not have the

time to go through the assessment questions and make a decision after thinking through the justification. However, a quick accounting of the risks and potential benefits of the intervention and the limitations of the case should help the medical aid worker determine whether or not to take action. If he makes a decision based on this brief assessment, it should be something that he is willing to share with others. Either option could be justified in this case, with the main considerations being the level of confidence that the medical aid worker has in the success of the intervention, the availability of resources for performing the intervention, and the wishes of the patient and other important stakeholders. If the medical aid worker does not believe that intervening will be successful, then the option of not intervening would be appropriate. On the other hand, if there is an acceptable chance of success, given that the alternative is death, then the option of intervening would be appropriate.

CASE COMMENTARY

This case illustrates an ethical issue that would rarely occur in the developed world. The medical aid worker is not qualified to provide the care required by a patient, and he cannot call in a more qualified provider or transfer the patient to a more appropriate facility. In developed countries, when physicians are not qualified to intervene, they generally have the option of transferring care to a more appropriate provider. In this case, consultation and transfer are not realistic options, so the medical aid worker must determine whether or not he is competent enough to perform the intervention.

One element that complicates this case is the emergent nature of the woman's medical problem. The medical aid worker does not have the luxury of postponing the intervention until a more competent provider is available. The imminence of death changes the balance of risks and potential benefits. While patients may not be willing to risk death to have an elective procedure, they may be willing to take on more risk in a situation in which they will surely die without intervention. Patients may also be willing to accept a lower likelihood of benefit when death is imminent than they would if they had a condition that was not acutely life threatening.

Limited Time

An inherent limitation of international medicine is the limited time that medical aid workers have to spend working in developing countries. Medical aid workers are often frustrated by having to go home knowing that they have left behind numerous ailing patients. Because medical aid workers have limited time, they must determine what interventions and treatments are appropriate, given their inability to provide long-term follow-up. Often this means providing quick-fix treatments, such as antibiotics for infections, vitamins for malnutrition, and analgesics for pain. The problem with quick fixes is that medical aid workers are only able to give patients short-term relief from their acute conditions. When medications or vitamins run out after a couple of weeks or months, patients' problems will return. Quick fixes often do not address the root causes of patients' medical problems, and the limited time that medical aid workers have often prevents them for working toward providing more permanent solutions.

Considering that medical aid workers are generally unable to provide long-term solutions with medications and vitamins during short-term medical aid missions, these missions seem to be the ideal setting for routine elective surgeries that provide definitive cures, such as cleft-lip and palate repairs, vesico-vaginal fistulae repairs, and orthopedic surgeries. Surgeries can fix the root causes of patients' conditions, unlike quick-fix medical treatments. While the temporary nature of international medicine lends itself to curative surgical procedures, limited time can also have negative effects on surgical patients. Because medical aid workers are only available to perform operations for a couple of days or weeks, some surgeries are done under less-than-ideal conditions. For example, surgeons may see their patients for the first time when they are brought into the operating room (Albrecht 1992). In addition, limited time may also encourage surgeons to operate on patients who are not ready to be operated on (Lehnerdt, van Delden, and Lautermann 2005). Surgeons may also choose to perform staged procedures more rapidly than they would if they were not limited by time (Sechriest and Lhowe 2008). Limited time can also negatively affect the management of patients following an operation when medical aid workers leave postoperative care in the hands of local medical personnel who may not have the training or re-

sources necessary to appropriately provide care. The following case illustrates a situation in which medical aid workers have to decide whether or not to perform elective surgeries on patients who are not good surgical candidates.

Case 4.4: Ear Camp

A medical aid group travels to Uganda for a two-week mission focused on performing tympanoplasties on children with chronic ear infections and deafness. Before leaving for Uganda, the group communicates with local medical personnel, asking them to identify children who they think need tympanoplasties. Because the children that they plan to treat suffer from chronic ear infections, many will have to be treated for active infections before surgery is performed.[4]

When the medical aid workers arrive in Uganda, their equipment and medical supplies are held up in customs for a couple of days, which delays antibiotic treatment for children with active infections. When the supplies arrive, the medical aid workers immediately start the children with infected ears on antibiotics. They also start performing procedures on children who do not have active infections. Within a week, the children with mild infections have cleared them and are ready for operative intervention. Two days before the end of the trip a couple of children, those who started with the most severe infections, still have not cleared their infections. The medical aid workers only have one more day of operating scheduled, so they must decide whether or not to perform tympanoplasties on the children who still have infections.

CASE ANALYSIS

In this case the medical aid group must decide whether or not to perform the tympanoplasty operations on the children with active ear infections. In their home country, the medical aid workers would just wait until the infections resolve before performing the tympanoplasties. However, because of the time constraints of the mission, the medical aid workers must either do the surgeries immediately or not do them at all.

Stakeholders

The primary stakeholders in this case are the medical aid workers, the children with active infections, their families, and local medical person-

nel. Other stakeholders to consider are other community members and the aid organization that the medical aid workers represent.

Medical Facts

The two children suffer from recurrent ear infections, and they currently have active infections. There are two treatments available for the children. The first is to continue using antibiotics to clear the infections. This will address the acute problem of the active infections but will do nothing to prevent future infections. The other treatment option is to perform the tympanoplasties even though there is still active infection. This treatment has the potential to prevent future ear infections but could be complicated by the active infections because of the risk that the infections will spread intracranially.

Goals and Values

The overall goal of the medical aid group in this case is to prevent future ear infections and further ear damage in the children that they treat. They are trying to achieve this by performing tympanoplasties, which are onetime curative interventions. The goal of the children and their parents is relief from chronic ear infections. The medical aid workers value doing as many tympanoplasties as they can, because the number of children treated serves as a proxy for the number of successful outcomes, since they will not be able to follow up with the children to determine if the interventions were actually successful.

Norms

The bioethical norms of beneficence and nonmaleficence are important in this case. Nonmaleficence requires that the medical aid workers do not harm patients without a compensating medical reason to do so. Beneficence requires that the benefits of the procedure are maximized and the harms are minimized. The potential benefit of tympanoplasty is the prevention of future ear infections. This can provide a permanent fix for the children. They would no longer suffer from the pain or further permanent damage of chronic ear infections. This benefit is especially important in an area where access to antibiotics for ear infections is limited. The risks of the procedure include failure of the graft, bleeding, infection, and hearing loss. While these are also the risks of a tympano-

plasty in an uninfected child, the risks of failure and infection are greater in patients with active infections.

The professional norm important in this case is the duty of physicians to provide the standard of care to their patients. Tympanoplasties in children with active infections would not be done in developed countries because of the increased risk of failure and intracranial infection. It is standard to wait until patients do not have active infections before performing elective surgeries on them.

One important legal question in this case is what level of responsibility the medical aid workers have for the postoperative care of patients and for complications that occur as a result of their interventions. In developed countries, surgeons are responsible for the postoperative care of their patients, as well as for the care of complications that arise following surgery. If surgeons cannot provide this care, they are responsible for transferring patients to a qualified provider. Because medical aid workers are temporary volunteers, they are often not present to treat postoperative complication or revise failed interventions.

Limitations

There are several limitations to consider in this case. The most apparent is the amount of time that medical aid workers have in Uganda. In addition, the medical aid workers should be aware of the resources available at the clinic for postoperative care, as well as the availability and capability of local medical personnel to provide it. From the children's perspective, they have limited options for having their chronic ear infections treated. This may be their only opportunity for a long time, or ever, to have a tympanoplasty.

ANALYSIS AND JUSTIFICATION OF OPTIONS

The two options that the medical aid workers have are to offer the tympanoplasty procedure to the children with active infections or not to offer the procedure. If they choose to offer the procedure, it is important that they seek individual informed consent from the parents or guardians of these children, making clear the additional risks of performing this procedure on children with active infections.

The first step in the justification of options is to determine if the option will be effective in achieving the desired goal. The goal identified

by the medical aid workers is to prevent future ear infections and further damage to the children's ears. The first option of offering the procedure might be effective in achieving this goal. It may, on the other hand, result in more damage to the children's ears or cause the infection to spread intracranially, which would leave the patients worse off than they were before the procedure. The option of not offering the procedure will not be effective in achieving the goal, but it does not risk leaving the children worse off than they were when the group arrived.

The second consideration for justification is whether the benefits of the option outweigh its infringement on the identified values or norms. The most significant potential benefit of doing the operations is that they might permanently resolve the children's chronic ear infections. This option would infringe on nonmaleficence if the children's active infections make successful tympanoplasty impossible. If the infections will increase the risks, but the operations will still have the potential to benefit the children, then medical aid workers would have to determine if this is acceptable as compared with the option of not doing the tympanoplasties. The option of operative intervention infringes on the professional norm of adhering to the standard of care, because elective operations are not generally done in patients with active infections. In addition, this option may infringe on the legal responsibility of physicians to transfer the care of their patients to qualified providers when they can no longer care for them, because the medical aid workers will be leaving the day after doing the operations.

The option of not doing the tympanoplasties has the benefit of ensuring that the children will not be left worse off than they were when the medical volunteers arrived. It may infringe on beneficence if the alternative option offers a more favorable risk-benefit ratio. It may also infringe on the professional norm of providing patients with the standard of care, because tympanoplasties are standard interventions for children with chronic ear infections. After the medical aid workers leave, there may not be another medical aid group following them that can do these procedures, so the children may never again have the opportunity to receive these interventions.

The next considerations for justification are whether infringement on the norms and values is necessary and, if so, how it can be minimized. Regarding the option of offering the procedure, the time constraints re-

quire that medical aid workers infringe on the standard of care. With both of the options, there may be ways to minimize infringement on the identified norms or values. If the medical aid workers decide to offer the procedure, they should consider how far they are away from the standard of care. Because they have been trying to achieve the standard of care by giving antibiotics, they may not be radically deviating from the accepted approach to tympanoplasties. They would also be able to minimize infringement on the standard of care by ensuring that the children continue antibiotic therapy after the procedure, and that local medical staff are competent and willing to provide high-quality postoperative care and follow-up. If they choose not to offer the procedure, the medical aid workers could provide extra antibiotics to the children to be used for future ear infections. They could also plan another medical mission in which they would have local medical personnel begin the antibiotic treatments before the team arrives, to increase the chances that the children with the most severe infections will clear them in time for operative intervention. This option is obviously costly and may not be realistic for the medical aid workers. If the medical aid workers cannot personally plan another trip, they could ask their organization to plan future trips with other medical aid workers who can do these procedures. If this is possible, the medical aid workers could make the two children with active ear infections a priority for the next group.

The final consideration for justification is to determine whether the stakeholders would be comfortable sharing their decision-making process with others. Whichever decision they make, the medical aid workers will have to discuss it with the parents of the children awaiting the tympanoplasties. If the aid workers decide not to offer the procedures, they should expect to be faced with disappointment and be ready to explain their reasoning. They should still provide the children with antibiotics to treat the acute infections and try to return to the area or to send another team to the area to address the continued needs of these children. If they decide to offer the procedures, they should be prepared to explain the additional risks to the parents who will ultimately make the decision about whether their children will undergo the procedure. In this case, determining which option to choose is largely dependent on the potential risks and benefits of the procedure. While medical aid workers, and medical personnel in general, have a desire to intervene to help patients,

it is important that they realize that interventions may do more harm than good, and they must be willing to refrain from potentially harmful interventions.

In this case, either of the options may be justified, depending on which additional contextual features are present. If the risks of the procedures are not significantly increased, there is adequate postoperative care available, and there is no other aid group scheduled to visit the area to perform more tympanoplasties, then the medical aid workers would be justified in offering the procedure. If, on the other hand, the risks of the procedures are significantly increased, there is limited postoperative care available, and there is another group scheduled to come to the area to perform tympanoplasties, then the medical aid workers should not offer the procedure, but rather make these children a priority for the next medical aid group.

CASE COMMENTARY

Time is one of the most apparent limiting factors in international medicine. Medical aid workers often have to leave the area where they are serving without meeting even a small fraction of the medical needs of patients. This case illustrates one of the most challenging decisions that medical aid workers encounter: whether it is appropriate to do a procedure that has the potential to provide permanent benefits but also carries significant risks. The desire to intervene is especially strong in medical aid work because this may be the only opportunity for patients to have a procedure done. Intervention is not, however, the only option in situations like the one described in the case. The intervention that is being offered is an elective procedure, meaning that it does not need to be done immediately. Risky interventions may significantly harm patients who have to live with these consequences long after medical aid workers have returned home. It is essential that medical aid workers are aware that their interventions may cause harm and that there may be situations in which it is better for patients that medical aid workers refrain from providing these procedures.

Multiple Limitations

Each case in this chapter focuses on one limitation that medical aid workers might encounter while serving in a developing country. In reality,

however, medical aid workers are more likely to encounter multiple limitations in trying to provide care to their patients. They often find that they are working with limited resources and facilities, surrounded by local medical personnel who have limited training, and treating patients who are victims of severe poverty. The following case illustrates the myriad limitations that medical aid workers must consider when deciding whether or not to provide medical interventions in developing countries.

Case 4.5: Postoperative Care for Cleft Lip and Palate Surgery

A medical aid group travels to Guatemala for a ten-day cleft lip and palate surgical mission. The team coordinates its trip with the medical personnel at the hospital where the operations will be done. The local doctors identify people with cleft lips and palates who would be good surgical candidates before the team arrives so that the team can quickly evaluate these individuals and get started with surgeries immediately. This is essential for the mission to reach its goal of performing at least fifty operations.[5]

On the final day of the mission, the team identifies one particularly challenging case of a twenty-six-year-old man with a cleft lip and palate. He was cast out of his community because of his appearance and forced to beg on the streets for survival. Overcome by sympathy for this man's predicament, and knowing that if they do not do the procedure the man will be left waiting for the next team to show up (which could be months, years, or not at all), the team members decide to go ahead and do the operation.

The procedure itself goes well, and the man is sent to the ward for recovery. The surgical team instructs the local medical personnel about how to care for the man postoperatively, changing bandages frequently and giving antibiotics to help avoid infections. The medical team, having performed seventy surgeries, exceeding the mission's goal, gets on the plane the next day with a sense of pride and accomplishment. Meanwhile, the doctors at the clinic realize that they do not have enough bandages to change the wound dressings as often as suggested by the medical aid workers. They also have a limited supply of antibiotics, which has been overwhelmed by the needs of all the postoperative patients.

Because of the limited antibiotics, the local doctors decide to give all of the postoperative patients half of the course of antibiotics recommended

by the medical aid workers. Over the next couple of days, the twenty-six-year-old man's wound becomes severely infected and dehisces. The local doctors do not know how to manage a ruptured wound and decide that they cannot do anything else for the patient. In addition, there are many sick patients in need of beds in the ward. So, the local doctors discharge the patient from the clinic without antibiotics or dressing supplies.

CASE ANALYSIS

Stakeholders

The main stakeholders in this case are the medical aid team, the patient, and the local medical personnel. While the team members decided to do the operation in this case, the ethical question is whether they should have done the surgery. Therefore, this case analysis focuses on the point at which the medical aid workers are deciding about whether or not to intervene.

Medical Facts

The patient has a cleft lip and palate that are not causing medical problems but have made him an outcast from his community. The medical aid workers believe that he can be treated successfully with an operative intervention. The risks of the operation include poor wound healing, wound rupture, and infection. Because he is older than a typical patient who has cleft lip and palate repair, the operation will be more technically difficult. However, if the operation is successful, it should correct his appearance and potentially allow him to return to his community.

Goals and Values

The goal for the intervention is to correct the patient's cleft lip and palate. The medical aid workers value helping patients in need who may not otherwise get treatment. The patient values being part of his community and being able to work.

Norms

The bioethical norms important in this case are beneficence and relationality. The stakeholders should weigh the potential benefits and risks of the procedure in order to determine if it should be done. The patient's cleft lip and palate are not causing any medical problems at this point,

so the primary potential medical benefit is cosmetic improvement. The patient believes that cosmetic improvement will allow him to rejoin his community and get a job. The risks of the operation are bleeding and infection. In addition, there is a chance that the operation will not be successful in improving the patient's appearance. The norm of relationality states that relationships are important and should be respected. The patient's appearance has made him an outcast. The patient is unable to have meaningful relationships with his family and community because of his appearance. He believes that if his cleft lip and palate are repaired, he will be able to form the relationships that he has been missing and become a contributing member in his community.

The professional norm important in this case is ensuring that patients who undergo operative intervention get appropriate postoperative care. In developed countries, surgeons manage the care of their patients postoperatively. They follow patients while they are in the hospital and then see them in clinic after discharge. Because medical aid missions are so short, surgeons cannot personally oversee postoperative patient care, so they have to ensure that local medical personnel can competently provide it.

The legal norm important in this case is that of avoiding patient abandonment. Legally, patient abandonment occurs when a physician, without giving timely notice, ceases to provide care for a patient who is still in need of medical attention (Jonsen, Siegler, and Winslade 2010, 99–100). The time-limited nature of international medicine makes patient abandonment a norm for medical aid workers. Medical aid workers often have to leave before all patients in need have been treated or all patients who have been treated have recovered. Because medical aid workers cannot personally oversee patient care forever, it is important that they are able to ensure that patients are able to follow through with treatment plans and that appropriate postoperative care is provided. While there is no legal responsibility for physicians to ensure transfer of care, this should be considered a professional norm in international medicine because of the temporary nature of medical aid in developing countries.

Limitations

This case illustrates a scenario in which there are numerous limitations to consider in the decision-making process. First, the medical aid

workers have limited time. They will be leaving Guatemala the following day. Second, the local medical personnel are not trained to manage postoperative complications such as wound dehiscence. In addition, the clinic has limited medical resources, specifically antibiotics and bandages, for the provision of adequate postoperative care.

The patient has limited options for intervention. He is poor and an outcast from his community, so he cannot afford to pay for an operation. His only option for cleft lip and palate repair is to rely on a medical aid group that will do the surgery for free. Because the medical aid workers did not ask local medical personnel about their ability to manage postoperative complications or the resources available for patient care, they did not recognize all of these important limitations.

ANALYSIS AND JUSTIFICATION OF OPTIONS

There are two options for the medical aid workers at the point at which this case is being analyzed. They can either perform the cleft lip and palate surgery or not. While the medical aid workers decided to do the surgery in the case presentation, this analysis discusses the justification of both options.

The first step in justifying the options is to determine whether the option will be effective in achieving the identified goal. In this case, the goal is to correct the patient's cleft lip and palate. Operative intervention has the potential to achieve this goal, although the likelihood of effectiveness is not clear, and there are several risks associated with the procedure. If the team members decide not to perform the procedure, they will not achieve the goal of correcting the man's cleft lip and palate. While only the option of operative intervention has the potential to achieve the goal, it is important for the medical aid workers to recognize that the man's medical condition is not acutely life threatening, so there is no immediate medical need for an operation.

The next step in justification of the options is to determine if the benefits of the option outweigh its infringement on the identified values and norms. The greatest potential benefit of operative intervention is that it may result in the correction of the man's cleft lip and palate. However, it may infringe on beneficence if the risks of the procedure outweigh the potential benefits. It may also infringe on the professional norm of ensuring adequate postoperative care. In addition, it could infringe on the

legal norms of not abandoning patients. While medical aid workers do not generally risk legal repercussions for abandoning patients in developing countries, it is important for them to consider whether they are violating this norm. The time-limited nature of medical aid work requires that medical aid workers leave before all patients have been treated or have recovered, so there is an expectation of patient abandonment in international medicine. Nevertheless, medical aid workers still have a professional obligation to transfer patients still in need of care to appropriate medical personnel.

The option of not performing the operation has the benefit of not leaving the man worse off medically than he was before the medical aid workers arrived, although it is unclear whether the man thinks that a failed procedure is better than no procedure. This option would infringe on beneficence if the risk-benefit profile of the alternative is more favorable. This option infringes on relationality because it does not give the patient an opportunity to return to his community.

The next steps in the justification of the options are to determine whether infringement on the identified values and norms is necessary, and if so, how it can be minimized. The option of operative intervention will infringe on beneficence to some extent because the medical aid workers cannot personally oversee the patient's postoperative care, which would be the best way to minimize the risks of postoperative complications. Because the medical aid workers are on a two-week mission, they have already set the expectation that they will be leaving before their surgical patients have fully recovered. Therefore, they will not technically infringe on the legal norm of patient abandonment. However, if the aid workers do the operation on the last day of the mission without having planned for appropriate postoperative care, they will infringe on the professional norm of ensuring adequate transfer of patients. If they had planned ahead by preparing local medical personnel to provide appropriate postoperative care and ensuring that they had the resources to do so, the medical aid workers would not have to infringe on this norm.

There are several strategies to minimize the infringement created by the option of operative intervention in cases like this. Because some of these strategies require planning ahead, they are not applicable in this particular case, but they would be applicable to help minimize the ethical issues encountered in similar cases or to prevent these issues from

occurring. First, the medical aid workers could make sure that part of their mission involves training local medical personnel in how to provide competent postoperative care to patients after cleft lip and palate surgeries. Second, they could take training a step further and teach local medical personnel how to do cleft lip and palate procedures so that the community is not reliant upon medical aid groups. Third, they could make sure that they bring enough wound care supplies and antibiotics for their postoperative patients. Conversely, they could limit the number of procedures that they do to match the availability of supplies. Fourth, medical aid workers could make themselves available by phone or e-mail to local medical personnel after they return home, in order to help local medical personnel if complications occur. Finally, medical aid workers could plan longer trips that build in time to provide postoperative care, or send another medical aid team to provide this care if the local medical personnel are unable to do so.

The option of not performing the operation infringes on the norm of relationality because it precludes the possibility of the patient being able to return to his community. It is important to keep in mind that it is not clear whether or not the man will actually be accepted back into his community even if his cleft lip and palate are repaired. As discussed above, the need for operative intervention is not acute. So the medical aid workers could minimize their infringement on this norm by planning a return trip in which they will do the procedure. Alternatively, if they know that other groups are planning to visit the area to do cleft lip and palate procedures, then they could make this man a priority for the next medical aid group. While it is not an option in this case, they could also make the purpose of their mission to train local medical personnel in cleft lip and palate surgeries so that the community is not dependent upon medical aid workers for these procedures. This type of option may be difficult to accomplish in some settings, particularly when local medical personnel have limited education and experience in surgical procedures.

The final step in justification of the options is to determine whether the stakeholders would be comfortable sharing their decision-making process with others. By involving local medical personnel and being realistic about the risks, potential benefits, and limitations of performing the procedure, the medical aid workers should be comfortable in sharing

their decision-making process with others. In this particular case, because the medical aid workers cannot ensure that the patient will receive adequate postoperative care because of limited supplies and limited medical personnel training in postoperative management, there is an increased risk of morbidity and failure of the surgery. In addition, the surgery is not emergent, so medical aid workers should not feel obligated to do it immediately.

CASE COMMENTARY

Because of the temporary nature of their work, medical aid workers often leave before they are able to see the final results of their interventions. Although they do not see these results, it is important that they are aware of the possibility that complications may occur as a result of their interventions, and that they take steps to avoid these complications. If medical aid workers' interventions do result in complications after they have left, this could significantly compromise future medical aid interventions in the community. Patients may distrust future medical aid groups. Additionally, local medical providers may be unwilling to work with these aid groups because they were left to deal with the unfortunate consequences of pervious medical aid interventions.

Medical aid work has the potential to significantly change the lives of patients in developing counties. It is important that medical aid workers ensure that this change is positive and that future interventions are welcomed. While it is understandable that medical aid workers are motivated to intervene whenever possible, it is important that they consider the risks, benefits, and limitations of their interventions, especially when these interventions are not immediately medically necessary. There are so many limitations encountered in international medicine, ranging from time to resources to the availability of trained medical personnel. In each case, it is essential that medical aid workers are aware of all the limitations that could affect patient care so that they are able to intervene appropriately. While it is a hard concept for medical aid workers in international medicine to come to terms with, not intervening is sometimes a better option than intervening.

EPILOGUE

The Complexity of International Medicine

International medicine is not a simple undertaking. Medical aid workers leave their homes and families to serve patients who are in dire need of medical care. They do this with limited resources, facilities, time, and help. Moreover, they work with patients and local medical personnel who speak different languages, have different cultures, adhere to different laws, and even have different understandings of medicine. It should not be a surprise that these circumstances contribute to and create both medical and ethical challenges.

Not only is the context of international medicine different from that of Western biomedicine in general, but the context of every international medical mission is unique, creating diverse ethical issues. For example, short-term surgical aid workers have to consider the necessity, risks, and benefits of their interventions, as well as the capability of local medical personnel to care for postoperative patients, while medical aid workers in war zones are often confronted with threats to their own safety, as well as decisions about which patients to treat, given limited resources and facilities. While each medical aid experience brings its own context and challenges, medical aid workers can be sure that they will encounter ethical issues and can use the case analysis method in this book to identify, analyze, and address these issues.

Practical Use of the Case Methodology

While the cases in this book highlight common ethical issues in international medicine, they cannot illustrate every ethical issue that medical aid workers might encounter. This is why understanding the rationale behind the methodology and how to apply it in a wide variety of cases is essential for all medical aid workers. When medical aid workers recognize that an ethical issue has arisen or is likely to arise, they should immediately start analyzing the situation, using the essential elements of

ethical issues in international medicine as a guide. While the analysis questions are a helpful road map, every question may not be necessary in every situation (for example, asking a boy who has just broken his leg what effect this has had on his life). Medical aid workers may also find they need to ask additional questions to better understand the situation. Therefore, the case analysis questions should be used as a guide, along with the clinical judgment of the medical aid worker, in the assessing ethical issues.

It is also important for medical aid workers to remember that cases evolve over time. Medical facts can change, different options for intervention can become possible, and new stakeholders can enter into a case. As situations evolve, medical aid workers and other stakeholders should reassess ethical issues to determine if anything has changed and if these changes affect their options or the justification of their options.

Preparation and Reflection

Beyond using this methodology during international experiences, medical aid workers can use it for both preparation and reflection. Just as medical aid workers can prepare to address the medical problems they will encounter in developing countries, they can also prepare for the ethical issues they are likely to encounter. Medical aid workers can ask those who have worked in the area before them about any ethical issues that they encountered and how these were addressed. They can also learn about the culture of the patients they will be serving so as to identify potential areas of disagreement. In addition, they can find out about the facilities and resources that will be available to them so as to prepare for the limitations they are likely to encounter. By preparing for potential ethical issues, medical aid workers will be in a position to identify these issues early and address them before they grow into more serious problems.

After their international experiences, medical aid workers can use the case method to review their approach to the ethical issues that they encountered. In doing so, they should identify areas for improvement and determine if they missed any key elements during their analysis so as to improve their approach in future cases. Reflection is especially important after emergent cases in which medical aid workers do not have time to go through a thorough analysis. It allows them to revisit the situa-

tion without time constrains and create a plan for how to address similar situations in the future.

A Note on Organizational Structure

Medical providers who are considering doing an international medical experience have a variety of choices with respect to medical aid organizations. It is important that they make an informed decision about their aid group, because organizational structure can have a role in creating or contributing to ethical issues. Organizational approaches to providing aid, measuring success, and interacting with the existing health care infrastructure vary. For example, some organizations focus on directly providing medical aid, while others focus on preventive care, while still others focus on training local medical personnel. If medical aid workers choose organizations with models that are in line with their goals and share their values, there is a lower probability that ethical issues will arise between medical aid workers and their organizations.

One organizational aspect of international medicine that medical aid workers should consider is how they will receive information about the area where they will be serving and the patients they will be taking care of. Good patient care requires continuity, accurate record-keeping, and strong communication among providers. For medical organizations to provide high-quality care, they should have an infrastructure in place to track the patients whom their aid workers care for and to encourage continuity from one aid worker or aid group to the next. This way, the organization can ensure that medical aid workers are not starting from scratch each time there is a transition. Not only will this allow medical aid workers to provide better care for patients, but it will also allow them to learn about the ethical issues that previous groups have encountered, thus enabling them to prepare to address similar situations and work toward avoiding them.

The Promise of International Medicine

Recognizing that ethical issues are prevalent in the practice of international medicine should not discourage medical aid workers from these experiences, but rather they should see this as an opportunity to improve the care of patients. If medical aid workers pretend that ethical issues do not arise, or ignore them when they occur, they are doing a disservice to

themselves and to their patients. Medicine is a human endeavor bathed in a context of suffering, disability, and death. When limited resources, time, facilities, and vast differences between providers and patients are added to this context, ethical issues are certain to occur. Medical aid workers should embrace all of the challenges of international medicine, including the ethical issues, in order to provide the best care that they can for their patients.

NOTES

CHAPTER 1: MEDICAL FACTS

1 This case is based on a journal article by Lewis Wall and colleagues (2006).
2 This case is based on a narrative written by Elizabeth Mullin (2003).
3 Breast-feeding is often very stressful for mothers, and one common concern with breast-feeding is whether the mother is producing an adequate supply of milk for the child (Conti 2008). Just because a woman is producing milk in only one breast, it is not necessarily the case that her infant will have an inadequate supply of milk. If the breast-feeding infant is gaining weight and sleeping well, it is likely that the mother is producing enough milk. Further, even if a woman is not producing milk in both breasts currently, this does not mean that she will be unable to produce milk in both breasts after having another child. There are techniques that women can use to promote milk production in both breasts, such as having the infant nurse on both sides during each feeding and emptying the breasts after each feeding, as the main deterrent to continued milk secretion is overfilling of the breasts (Lipscomb and Novy 2007).
4 This case is based on a narrative by Humphery Birley (2001).
5 This case is based on narratives written by Paul Farmer (1999).
6 This case is based on a narrative by Kathleen Clem and Steven Green (1996).

CHAPTER 2: GOALS AND VALUES

1 This case is based on a narrative by Kathleen Braico (2007).
2 This case is based on a narrative by Douglas Sill (2003).
3 This case is based on a narrative by Douglas Clement (1997).
4 This case is based on a journal article by Eric Berger (2006).

CHAPTER 3: NORMS

1 This case is based on a journal article by Robert Becker (1999).
2 This case is based on a narrative by Sandy Buchman (2007).
3 This case is based on a narrative by James Cobey (2002).
4 This case is based on a personal experience in international medical aid work.
5 An example of an organization that models its international medical practice like this is Partners in Health (www.pih.org).

6 This case is based on journal articles by Pierre Perrin (1999) and Hannah Nolan (1999).

CHAPTER 4: LIMITATIONS

1 This case is based on a narrative by Ben Leo (2003).
2 This case is based on narratives by Paul Farmer (1999).
3 This case is based on a narrative by S. Y. Ho (2004).
4 This case is based on a journal article by Goetz Lehnerdt and colleagues (2005).
5 This case is based on journal articles by Vincent Yeow and colleagues (2002) and Adam Wolfberg (2006).

BIBLIOGRAPHY

Abbey, N. D. 1971. "One Year's Work in a Mission Hospital in Lesotho, Southern Africa." *Canadian Medical Association Journal* 105 (2):132–33.

Abrams, Scott. 1998. "A Medical Student's Experience in Venezuela." *South Dakota Journal of Medicine* 51 (9):355–56.

Agrawal, Amit, Akshay Pratap, Ishwar Singh, Anand Kumar, and Sangeeta Shrestha. 2007. "Cerebellar Abscess following Mastoidectomy for Chronic Otitis Media." *Pediatric Neurosurgery* 43 (4):327–29.

Albrecht, Laura J. 1992. "Miracle Missions a World of Hope." *Texas Medicine* 88 (2):42–51.

Amendments to the Child Abuse Prevention and Treatment Act. Public Law 98–457. October 9, 1984.

Anderson, Karen M. 2007. "Charting a Course into the Unknown: Banda Aceh, Indonesia, Tsunami, 2004." *Perspectives in Psychiatric Care* 43 (1):47–51.

Angell, Marcia. 1997. "The Ethics of Clinical Research in the Third World." *New England Journal of Medicine* 337 (12):847–49.

Baskind, Roy, and Gretchen Birbeck. 2005. "Epilepsy Care in Zambia: A Study of Traditional Healers." *Epilepsia* 46 (7):1121–26.

Beauchamp, Tom L., and James F. Childress. 2001. *Principles of Biomedical Ethics*. New York: Oxford University Press.

Becker, Robert. 1999. "Teaching Communication with the Dying across Cultural Boundaries." *British Journal of Nursing* 8 (14):938–42.

Beitler, Alan L., Jennifer L. Junnila, and James H. Meyer Jr. 2006. "Humanitarian Assistance in Afghanistan: A Prospective Evaluation of Clinical Effectiveness." *Military Medicine* 171 (9):889–93.

Berg, Jessica W., and Paul S. Appelbaum. 2001. *Informed Consent: Legal Theory and Clinical Practice*. Oxford: Oxford University Press.

Berger, Eric. 2006. "Emergency Medicine Goes Global: Specialty Steps Up Humanitarian Role." *Annals of Emergency Medicine* 47 (4):344–47.

Birbeck, Gretchen L. 2000. "Barriers to Care for Patients with Neurologic Disease in Rural Zambia." *Archives of Neurology* 57 (3):414–17.

Birley, Humphrey. 2001. "Shimo la Mungu." *Sexually Transmitted Infections* 77 (1):73–74.

Bishop, Bryan. 1986. "Nursing Frontiers: Working through Medicine Men; New Trends in Third-World Health Care." *Journal of Christian Nursing* 3 (1):24–27.

Bosenberg, Adrian T. 2007. "Pediatric Anesthesia in Developing Countries." *Current Opinion in Anaesthesiology* 20 (3):204–10.

Boyle, Joseph. 2006. "The Bioethics of Global Biomedicine: A Natural Law Reflection." In *Global Bioethics: The Collapse of Consensus*, edited by H. Tristam Engelhardt, 300–334. Salem, MA: M & M Scrivener Press.

Braico, Kathleen. 2007. "Megacode Guatemala." *The Pharos of Alpha Omega Alpha-Honor Medical Society* 70 (4):24–27.

Buchman, Sandy. 2007. "Tariro: Finding Hope in Zimbabwe." *Canadian Family Physician* 53 (11):1971–73.

Campbell, Catherine. 2003. *Letting Them Die: Why HIV/AIDS Intervention Programmes Fail; African Issues*. Oxford: International African Institute.

Cappello, Cynthia S., Vance G. Gainer, and Gregory H. Adkisson. 1995. "The Safe Practice of Anesthesia in Developing Countries." *CRNA: The Clinical Forum for Nurse Anesthetists* 6 (2):91–95.

Cavagnaro, Felipe, Carla Guzman, and Paul Harris. 2006. "Hemolytic Uremic Syndrome Associated with Entamoeba Histolytica Intestinal Infection." *Pediatric Nephrology* 21 (1):126–28.

Chadney, Sue. 2004. "Maternal Mortality in Haiti: A Scottish Midwife's Perspective." *Official Journal of the Royal College of Midwives* 7 (5):204–6.

Chaignat, Claire-Lise, Victoria Monti, Jane Soepardi, Georg Petersen, Eigil Sorensen, Jai Narain, and Marie P. Kieny. 2008. "Cholera in Disasters: Do Vaccines Prompt New Hopes?" *Expert Review of Vaccines* 7 (4):431–35.

Childress, James F., Ruth R. Faden, Ruth D. Gaare, Lawrence O. Gostin, Jeffery Kahn, Richard J. Bonnie, Nancy E. Kass, Anna C. Mastroianni, Jonathan D. Moreno, and Phillip Nieburg. 2002. "Public Health Ethics: Mapping the Terrain." *Journal of Law, Medicine & Ethics* 30 (2):170–78.

Christman, Mark S. 2000. "A Personal Account of a Medical Mission." *Journal of the American Academy of Nurse Practitioners* 12 (8):309–10.

Clem, Kathleen J., and Steven M. Green. 1996. "Emergency Medicine Expeditions to the Developing World: The Loma Linda University Experience in Papua New Guinea." *Academic Emergency Medicine* 3 (6):624–33.

Clement, Douglas. 1997. "Mission Possible." *Minnesota Medicine* 80 (7):6–7, 50.

Cobey, James C. 2002. "Physicians and Surgeons Volunteering in Developing Countries: A Personal Perspective." *Clinical Orthopaedics and Related Research* (396):65–72.

Cohen, Michael H., and Kathi Kemper. 2005. "Complementary Therapies in Pediatrics: A Legal Perspective." *Pediatrics* 115: 774–80.

Conti, Tracey D. 2008. "Breast-Feeding and Infant Nutrition." In *Current Diagnosis and Treatment in Family Medicine*, edited by Jeanette South-Paul, Samuel Matheny, and Evelyn Lewis. New York: McGraw-Hill Medical.

DeCamp, Matthew. 2007. "Scrutinizing Global Short-Term Medical Outreach." *Hastings Center Report* 37 (6):21–23.

Dotchin, C. L., O. Msuya, and R. W. Walker. 2007. "The Challenge of Parkinson's Disease Management in Africa." *Age and Ageing* 36 (2):122–27.

DuBois, James M. 2008. *Ethics in Mental Health Research: Principles, Guidance, and Cases*. New York: Oxford University Press.

Dupuis, Christian C. 2004. "Humanitarian Missions in the Third World: A Polite Dissent." *Plastic and Reconstructive Surgery* 113 (1):433–35.

Ekortarl, AnnCommy, Paul Ndom, and Alexandra Sacks. 2007. "A Study of Patients Who Appear with Far Advanced Cancer at Yaounde General Hospital, Cameroon, Africa." *Psychooncology* 16 (3):255–57.

Emanuel, Ezekiel J., David Wendler, Jack Killen, and Christine Grady. 2004. "What Makes Clinical Research in Developing Countries Ethical? The Benchmarks of Ethical Research." *Jounal of Infectious Diseases* 189 (5):930–37.

Epstein, Helen. 2007. *The Invisible Cure: Africa, the West, and the Fight against AIDS*. New York: Farrar, Straus and Giroux.

Fadiman, Anne. 1997. *The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures*. New York: Farrar, Straus, and Giroux.

Farmer, Paul. 1999. *Infections and Inequalities: The Modern Plagues*. Berkeley and Los Angeles: University of California Press.

———. 2003. AIDS as a Global Emergency. *Bulletin of the World Health Organization* 81 (10):699.

———. 2005. *Pathologies of Power: Health, Human Rights, and the New War on the Poor*. Berkeley and Los Angeles: University of California Press.

———. 2007. "Whither Equity in Health? The State of the Poor in Latin America." *Cadernos de Saúde Pública* 23 Suppl. 1:S7–12.

Fleet, Jane. 2007. "Another World: Working as a Public Health System Employee Overseas." *Canadian Family Physician* 53 (11):1978–79.

Furrow, Barry R., Thomas L. Greaney, Sandra H. Johnson, Timothy S. Jost, and Robert L. Schwartz. 2001. *Health Law: Cases, Materials, and Problems*. St. Paul, MN: West Group.

Gately, Roberta. 2005. "Sudan: A Humanitarian Response to a Silent Genocide: An American Nurse's Perspective." *Journal of Emergency Nursing* 31 (3):325–32.

Gibeau, Anne M. 1998. "Female Genital Mutilation: When a Cultural Practice Generates Clinical and Ethical Dilemmas." *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 27 (1):85–91.

Goldring, Mark. 2006. "Sowing Seeds of Hope." *Nursing Standard* 20 (44):22–25.

Graf, Shirley. 2003. "The Joy of Caring." In *Caring Hands: Inspiring Stories of Volunteer Medical Missions*, edited by Susan J. Alexis. Minneapolis: Fairview Press.

Grindeland, Rhae Ann. 2003. "For Just One Better Day." In *Caring Hands: Inspiring Stories of Volunteer Medical Missions*, edited by Susan J. Alexis. Minneapolis: Fairview Press.

Hennessy, James. 2003. "Agenda for Repair: Equipment and People." In *Caring Hands: Inspiring Stories of Volunteer Medical Missions*, edited by Susan J. Alexis. Minneapolis: Fairview Press.

Ho, S. Y. 2004. "Experience as an Emergency Physician in Sudan." *Hong Kong Medical Journal* 10 (2):142–43.

Holmes, Keith M. 1996. "Work and Service in Bangladesh—the Medical Needs Are Manifold and Profound." *Bulletin of the American College of Surgeons* 81 (5):8–19.

IBC (International Bioethics Committee of UNESCO). 2008. Report of the International Bioethics Committee of UNESCO on Consent. http://unesdoc.unesco.org/images/0017/001781/178124E.pdf.

Isturiz, Raul E., and Claude Carbon. 2000. "Antibiotic Use in Developing Countries." *Infection Control and Hospital Epidemiology* 21 (6):394–97.

Itani, Kamal M. 2009. "Fifteen Years of the National Surgical Quality Improvement Program in Review." *American Journal of Surgery* 198 (5 Suppl.):S9–S18.

Jonsen, Albert R., Mark Siegler, and William J. Winslade. 2010. *Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine*. New York: McGraw-Hill Medical.

Kim, Jim Y., and Paul Farmer. 2006. "AIDS in 2006—Moving toward One World, One Hope? *New England Journal of Medicine* 355 (7):645–47.

Kleinman, Arthur, and Peter Benson. 2006. "Anthropology in the Clinic: The Problem of Cultural Competency and How to Fix It." *PLoS Medicine* 3 (10):e294.

Lane, Sandra D., and Robert A. Rubinstein. 1996. "Judging the Other. Responding to Traditional Female Genital Surgeries." *Hastings Center Report* 26 (3):31–40.

Lehnerdt, Goetz, Anneke van Delden, and Juergen Lautermann. 2005. "Management of an 'Ear Camp' for Children in Namibia." *International Journal of Pediatric Otorhinolaryngology* 69 (5):663–68.

Leo, Ben. 2003. "Toward a Lasting Impact." In *Caring Hands: Inspiring Stories of Volunteer Medical Missions*, edited by Susan J. Alexis. Minneapolis: Fairview Press.

Levin, Robert. 2007. "Lessons from Rwanda." *Minnesota Medicine* 90 (3):32–5.

Lipscomb, Kim, and Miles J. Novy. 2007. "The Normal Puerperium." In *Current Diagnosis & Treatment Obstetrics & Gynecology*, edited by Alan H. DeCherney and Lauren Nathan. New York: McGraw Hill Medical.

Lo, Bernard. 2005. *Resolving Ethical Dilemmas: A Guide for Clinicians*. Philadelphia: Lippincott Williams & Wilkins.

London, Alex John. 2000. "The Ambiguity and the Exigency: Clarifying 'Standard of Care' Arguments in International Research." *Journal of Medicine and Philosophy* 25 (4):379–97.

Lurie, Peter, and Sidney M. Wolfe. 1997. "Unethical Trials of Interventions to Reduce Perinatal Transmission of the Human Immunodeficiency Virus in Developing Countries." *New England Journal of Medicine* 337 (12):853–56.

Lyon, Evan, and Paul Farmer. 2005. "Inequality, Infections, and Community-Based Health Care." *Yale Journal of Health Policy, Law, and Ethics* 5 (1):465–73.

Macklin, Ruth. 1999a. *Against Relativism: Cultural Diversity and the Search for Ethical Universals in Medicine*. New York: Oxford University Press.

———. 1999b. "International Research: Ethical Imperialism or Ethical Pluralism? *Accountability in Research* 7 (1):59–83.

Mukherjee, Joia S., Louise Ivers, Fernet Leandre, Paul Farmer, and Heidi Behforouz. 2006. "Antiretroviral Therapy in Resource-Poor Settings. Decreasing Barriers to Access and Promoting Adherence." *Journal of Acquired Immune Deficiency Syndromes* 43 Suppl. 1:S123–26.

Mullin, Elizabeth. 2003. "A Degree of Control." In *Caring Hands: Inspiring Stories of Volunteer Medical Missions*, edited by Susan J. Alexis. Minneapolis: Fairview Press.

Nijssen-Jordan, Cheri. 2007. "It Was Time to Go Back." *Canadian Family Physician* 53 (7):1210.

Nolan, Hannah. 1999. "Learning to Express Dissent: Médecins Sans Frontières." *BMJ* 319 (7207):446–47.

Nuremberg Code. 1947. http://ohsr.od.nih.gov/guidelines/nuremberg.html.

Nussbaum, Martha Craven. 1999. *Sex & Social Justice*. New York: Oxford University Press.

OHCHR (Office of the High Commissioner for Human Rights). 1982. Principles of Medical Ethics Relevant to the Role of Health Personnel, Particularly Physicians, in the Protection of Prisoners and Detainees against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment. www2.ohchr.org/english/law/medicalethics.htm.

———. 2008. Eliminating Female Genital Mutilation: An Interagency Statement. www.who.int/reproductive-health.

Okeke, Iruka N., Oladiipo A. Aboderin, Denis K. Byarugaba, Kayoda K. Ojo, and

Japheth A. Opintan. 2007. "Growing Problem of Multidrug-Resistant Enteric Pathogens in Africa." *Emerging Infectious Diseases* 13 (11):1640–46.

Osborne, Mike. 2006. "Iye Sowodie's 'Gladdie, Gladdie' Day. Mercy Ships Treats Women Made Incontinent by Birth Injuries." *Midwifery Today with International Midwife* (80):60–1.

Ozao, Junko. 2007. "Personal and Surgical Experiences during a Rotation in San Cristobal, Dominican Republic." *Journal of Surgical Education* 64 (2):128–29.

Patterson, Jan. 2007. "Living the Mission: Medical Assistance to Nigeria." *AORN Journal* 86 (5):735–43.

Perrin, Pierre. 1999. "Sharia Punishment, Treatment, and Speaking Out." *BMJ* 319 (7207):445–46.

Pham, Annette M., and Travis T. Tollefson. 2007. "Cleft Deformities in Zimbabwe, Africa: Socioeconomic Factors, Epidemiology, and Surgical Reconstruction." *Archives of Facial Plastic Surgery* 9 (6):385–91.

Resnik, David B. 1998. "The Ethics of HIV Research in Developing Nations." *Bioethics* 12 (4):286–306.

Rinsky, Lawrence. 2002. "Personal Experiences with Overseas Volunteerism." *Clinical Orthopaedics and Related Research* (396):89–97.

Robinson, O. Gordon, Jr. 2006. "Humanitarian Missions in the Third World." *Plastic and Reconstructive Surgery* 117 (3):1040–41

Schwarze, Margaret L., Ciaran T. Bradley, and Karen J. Brasel. 2011. "Surgical 'Buy-in': The Contractual Relationship between Surgeons and Patients That Influences Decisions Regarding Life-Supporting Therapy." *Critical Care Medicine* 38 (3):843–48.

Sechriest, V. Franklin, and David W. Lhowe. 2008. "Orthopaedic Care aboard the USNS *Mercy* during Operation Unified Assistance after the 2004 Asian Tsunami. A Case Series." *Journal of Bone and Joint Surgery* 90 (4):849–61.

Sill, Douglas. 2003. "Repaying the Debt." In *Caring Hands: Inspiring Stories of Volunteer Medical Missions*, edited by Susan J. Alexis. Minneapolis: Fairview Press.

Sneag, Darryl B., H. Simon Schaaf, Mark F. Cotton, and Heather J. Zar. 2007. "Failure of Chemoprophylaxis with Standard Antituberculosis Agents in Child Contacts of Multidrug-Resistant Tuberculosis Cases." *Pediatric Infectious Disease Journal* 26 (12):1142–46.

Souers, Charlotte. 2007. "A Bolivian Medical Mission Experience." *AORN Journal* 86 (5):759–66.

Tan-Alora, Angeles, and Josephine M. Lumitao. 2001. *Beyond a Western Bioethics: Voices from the Developing World*. Washington, DC: Georgetown University Press.

UNCTD (United Nations Conference on Trade and Development). 2006.

"Landlocked Developing Countries: Facts and Figures 2006." http://www.unctad.org/en/docs/ldc20062_en.pdf.

USNCPHSBBR (United States National Commission for Protection of Human Subjects of Biomedical and Behavioral Research). 1979. "The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research." ohsr.od.nih.gov/guidelines/belmont.html.

Wall, Lewis L., Steven D. Arrowsmith, Anyetei T. Lassey, and Kwabena Danso. 2006. "Humanitarian Ventures or 'Fistula Tourism'? The Ethical Perils of Pelvic Surgery in the Developing World." *International Urogynecology Journal and Pelvic Floor Dysfunction* 17 (6):559–62.

Wolfberg, Adam J. 2006. "Volunteering Overseas—Lessons from Surgical Brigades." *New England Journal of Medicine* 354 (5):443–45.

Won, Erik, Michael Ancona, Kenichi Carrigan, Bruce Laverty, and Peter Rhee. 2006. "Humanitarian Aid Mission in East Timor: Experiences of U.S. Naval Medical Services." *Military Medicine* 171 (1):29–36.

WHO (World Health Organization). 2003. "Treatment of Tuberculosis: Guidelines for National Programmes." http://whqlibdoc.who.int/hq/2003/WHO_CDS_TB_2003.313_eng.pdf.

———. 2008. "World Statistics 2008." http://www.who.int/whosis/whostat/2008/en/.

WMA (World Medical Association). 1964. "Declaration of Helsinki." www.wma.net/en/30publications/10policies/b3/.

Yeow, Vincent K., Seng-Teik T. Lee, Thomas J. Lambrecht, John Barnett, Mark Gorney, Widanto Hardjowasito, Gottfried Lemperle, Harold McComb, Nagato Natsume, Mirek Stranc, and Libby Wilson. 2002. "International Task Force on Volunteer Cleft Missions." *Journal of Craniofacial Surgery* 13 (1):18–25.

Yong Kim, Jim, Aaron Shakow, Kedar Mate, Chris Vanderwarker, Rajesh Gupta, and Paul Farmer. 2005. "Limited Good and Limited Vision: Multidrug-Resistant Tuberculosis and Global Health Policy." *Social Science and Medicine* 61 (4):847–59.