Volunteers in Plastic Surgery Guidelines for Providing Surgical Care for Children in the Less Developed World: Part II. Ethical Considerations

William J. Schneider, M.D.
Mark R. Migliori, M.D.
Arun K. Gosain, M.D.
George Gregory, M.D.
Randall Flick, M.D., M.P.H.

Knoxville, Tenn.; Minneapolis and Rochester, Minn.; Cleveland, Ohio; and San Francisco, Calif.

Background: Many international volunteer groups provide free reconstructive plastic surgery for the poor and underserved in developing countries. An essential issue in providing this care is that it meets consistent guidelines for both quality and safety—a topic that has been addressed previously. An equally important consideration is how to provide that care in an ethical manner. No literature presently addresses the various issues involved in making those decisions.

Methods: With these ethical considerations in mind, the Volunteers in Plastic Surgery Committee of the American Society of Plastic Surgeons/Plastic Surgery Foundation undertook a project to create a comprehensive set of guidelines for volunteer groups planning to provide this type of reconstructive plastic surgery in developing countries. The committee worked in conjunction with the Society for Pediatric Anesthesia on this project.

Results: The Board of the American Society of Plastic Surgeons/Plastic Surgery Foundation has approved the ethical guidelines created for the delivery of care in developing countries. The guidelines address the variety of ethical decisions that may be faced by a team working in an underdeveloped country. These guidelines make it possible for a humanitarian effort to anticipate the types of ethical decisions that are often encountered and be prepared to deal with them appropriately.

Conclusions: Any group seeking to undertake an international mission trip in plastic surgery should be able to go to one source to find a detailed discussion of the perceived needs in providing ethical humanitarian care. This document was created to satisfy that need and is a companion to our original guidelines addressing safety and quality. (*Plast. Reconstr. Surg.* 128: 216e, 2011.)

GOALS

Providing access to quality and safe reconstructive plastic surgery remains the highest priority of volunteer plastic surgery teams working in developing countries. First and foremost, the care provided must meet consistent guidelines for both quality and safety. Guidelines are systematically developed recommendations that assist the practitioner and patient in making decisions about health care. These recommendations may be adopted, modified, or rejected according to clinical needs and constraints and are not intended to replace local institutional policies. In addition, practice guidelines are not intended as standards or absolute requirements, and their use cannot guarantee any specific outcome. Practice guidelines are subject to revision as warranted by the evolution of medical knowledge, technol-

From Fort Sanders Regional Medical Center; Abbott Northeastern Hospital; the Department of Plastic Surgery, Case Western Reserve University; the Departments of Pediatrics and Anesthesia, University of California, San Francisco; and the Department of Anesthesiology, Mayo Clinic College of Medicine.

Received for publication December 18, 2010; accepted January 28, 2011.

DOI: 10.1097/PRS.0b013e31822213b4

Disclosure: *The authors have no financial interests or commercial associations related to this study. No outside sources of funding were required.*

ogy, and practice. Guidelines provide basic recommendations that are supported by a synthesis and analysis of the current literature, expert opinion, open forum commentary, and clinical feasibility data.

The ideal long-term goal is to prepare local surgical teams to provide the same quality care for their patient population without outside medical assistance. Guidelines for providing such care have been addressed in the first part of this series.[1] To prepare for safety and efficacy in surgical mission trips, we encourage teams to visit the Web site of the Volunteers in Plastic Surgery or the American Society of Plastic Surgeons/Plastic Surgery Foundation, and Web sites provided by other organizations documenting essential travel information and safety for improving the efficacy of surgical missions. Inherent in providing plastic surgical care in underdeveloped countries, numerous ethical questions arise. To our knowledge, these ethical issues have never previously been addressed in the literature. The present document was prepared to address this deficiency, focusing on ethical considerations for both individuals and groups that provide free care for poor and underserved patients in developing countries.

Ethics, in general, is the study of moral principles and values. Medical ethics, in particular, considers the ways in which these moral principles and values should be applied in the therapeutic relationship when a physician or other medical professional provides care and treatment for a patient. Certain basic principles of medical ethics have long been acknowledged, including the following: (1) preserve life, (2) alleviate suffering, (3) do no harm, (4) tell the truth, (5) respect the patient's autonomy, and (6) deal justly with patients. Each of these general principles may require interpretation and adaptation to meet the mores and the practice of medicine in different settings. Ethical dilemmas result from the circumstances that place these principles at odds with the limitations of the provider. These dilemmas are not infrequent during volunteer missions in developing countries. Being prepared for them will help ensure a response that will be consistent with the organization's philosophy.

It is recognized that the circumstances in various locations around the world differ. With this in mind, these guidelines are intended to provide a framework from which ethical decisions can be made rather than to be an absolute statement of how ethical decisions must be made.

The following ethical dilemmas have been encountered on actual mission trips. Although they are not exhaustive, they do highlight some of the many concerns that will become evident in any volunteer surgical project.

Your team has been performing surgery in a local hospital, and it comes to your attention that the hospital is charging the families for the care delivered by your team. How do you manage this?

Your team has planned for five to six surgical cases per operating room table per day, and twice as many patients show up to be screened. Do you work around the clock to try to accommodate all that arrive? How do you prioritize care?

Your team is prepared for surgery on children, and a transit strike prevents patients from coming to the clinic. A man presents with a firm mass in his parotid. You have previously performed parotid surgery occasionally in your practice. Do you schedule him for surgery?

A patient with a vascular malformation of the tongue is seen. You do not have radiography or transfusion capabilities, but you fear that this lesion that appears circumscribed may obstruct the airway. Do you go outside the scope of your mission? Does the magnitude of the potential medical concern outweigh the potential risks of the surgery or limitations of the facility?

An important person in the local community who helped organize the team visit asks the lead surgeon to perform a rhinoplasty on his nephew. How do you respond? Is there a circumstance when this might be appropriate?

You are in urgent need of a recovery room nurse. The registered nurse who has applied has never worked in a postanesthesia care unit and never worked with children. Is it important that a postanesthesia care unit nurse be able to deal with airways in children? If this is the only person you can get, do you still make the trip?

Your eldest son has expressed an interest in medicine. He is 18 years old and responsible. You know he would like to travel on a mission trip with you. Do you take him?

The local hosts in a border city find that some of the patients coming to the clinic are from the adjacent (equally poor) country. The local hosts object to their being treated. What do you do?

A six-month-old with a primary cleft lip presents for care. Likewise, a 4-year-old with a large palatal fistula also presents for care. He hopes to attend

school. There is time to perform only one of these operations; how will you prioritize?

A 6-month-old female infant and a 22-year-old woman both present with unrepaired cleft lips. The 22-year-old woman states that she wishes to marry, but she cannot do so until her lip is repaired. There is time to perform only one of these operations; how will you prioritize?

A very large and profitable mining company has many active mines in a developing country where you plan a mission trip. They offer to donate $25,000 for your work in that country. As with all nonprofit organizations, the money can be used to benefit the work of the organization. The company has violated no laws in that country. However, the company has been criticized for both its exploitation of local workers and its disregard for environmental concerns. Do you take the money? What if they offer you $100,000?

This document does not attempt to provide specific answers to these individual questions. However, just as pretrip planning regarding the supplies and personnel is critical to the technical execution of a successful surgical experience, so is planning regarding the philosophy and ethical considerations of each provider organization.

GENERAL PRINCIPLES

Planning is important for the success of every mission. Involvement of local caregivers in all phases of the mission is essential, and they should be involved in every step of planning. Planning should be as inclusive as possible: local surgeons; hospitals; charities; and, when appropriate, local, regional, or national government entities. Every attempt should be made to avoid overlap of services with other international or governmental organizations or groups that provide similar care locally. Likewise, it is essential that groups relate honestly and ethically with one another both while working in the field and in their general ongoing relationships, with the objective of supporting the mutual efforts of care for underprivileged patients. It is also vital that planners understand, organize, and develop information and training to prepare the mission team for appropriate cultural sensitivity. A guiding principle is that a medical mission is intended to serve medical needs of a community and is not a mechanism to serve the mission team's needs.

All care is intended to be delivered completely free of charge to patients. Every effort should be made to ensure that patients are not inadvertently charged fees by host countries or hospitals. No other verbal or implied requirements should be made for the delivery of care. When planning a mission, this issue should be explicitly addressed so that there are no misunderstandings at the time of the mission. If necessary, funds can be provided by the organization to cover the secondary costs of the increased resources used during these missions. Being prepared for this possibility before the mission commences will help avert any unintended consequences.

GROUP CONSIDERATIONS

Because most missions are constituted of volunteers who are often new to the area, the team members must clearly understand that the primary purpose in being there is to provide medical care. There is an obligation to best use the resources of the team and the donors and to provide the maximum amount of safe patient care. It is important to balance the time spent working with time to recharge and experience the local surroundings. Care should be taken not to overwork the volunteers by performing excessive amounts of surgery. An exhausted team may be prone to errors in judgment. Typically, there is much enthusiasm and energy at the beginning of a mission and there is often a tendency to extend workdays beyond reasonable hours. That excessive enthusiasm, however, could jeopardize the remainder of the mission and may reduce the likelihood that a volunteer will participate in future missions.

Every effort should be made to assess and limit the risk for team members. These risks include exposure to disease, personal security, and traffic accidents.[2] Before embarking on such mission trips, group members should understand what is expected of them, including after-hours activities. Although it is important to allow for some recreation and stress relief, it must also be balanced with respect for local customs, safety of the group, and availability of emergent intervention if a patient complication arises. Although individuality can be a positive attribute, there is a responsibility of every team member to the group performing this work to carry out the primary purpose of providing medical care.

MEDICAL STANDARDS AND PRIORITIES

The highest priority of medical missions is to provide quality, safe medical care.[1] This includes the need to preserve life, alleviate suffering, and do no harm. The notion that "doing something is better than nothing" is neither acceptable nor ethical. The care provided and the expected out-

comes should be comparable to those provided in a developed country (understanding some of the limitations of that maxim in developing countries).

Ethically, every effort should be made to ensure that local hosts are not being overburdened. This includes use of medical supplies or personal demands by the team. Supplies for a mission should be provided by the volunteer organization. If not supplied, they should be replenished to the local hospital or the hospital should be reimbursed for the cost of the supplies. The presence of a medical mission can also overuse the local medical personnel and/or the hospital facilities. Examples include preventing local surgery from being performed, or demands made on local physicians to provide postoperative care for patients after the team has left.

Local infrastructure is often a major factor that determines whether some surgical procedures can be performed well and safely. Included in these decisions must be considerations of who will provide care at night and whether adequate pain therapy is available 24 hours per day. These decisions also must take into account the availability of appropriate medications and personnel to treat the patient's pain safely.

Informed consent is as essential in developing countries as it is in developed countries. It is acknowledged that obtaining informed consent in a volunteer surgical setting may be fraught with problems, especially with regard to language and the cultural and ethical beliefs of the patient. All relevant information should be provided to the patients to allow them to clearly understand what the appropriate expectations and outcomes for surgical procedures are under the circumstances in their country. Team members must tell the truth, respect the patient's autonomy, and deal justly with the patient. Because this may be the only chance patients have to obtain the needed surgery, they may be susceptible to subtle and unintended pressure or may accept surgery that may not be what they desire. Every attempt must be made to avoid applying such pressures. Consent must be obtained in the language of the patient and in words he or she can understand. Sufficient time should be allowed for the team to answer all of the patient's questions. This may be difficult in a busy clinic, but it is ethically and morally required.

There has been a recent emphasis in the medical community regarding preoperative communication to ensure the right patient, the right procedure, and the right surgical site. This is no less important on a volunteer medical mission. One could argue that it is more critical given the abbreviated physician-patient relationship and the less predictable atmosphere in this setting. A process for patient identification and confirmation of the correct procedure is best practice in the volunteer setting and in a nonvolunteer setting.[3,4]

Experimental procedures should not be performed on surgical missions.[5] It is difficult/impossible to obtain appropriate consent from the patient without applying undue pressure. The patient may perceive that this may be the only chance to obtain needed surgery and, consequently, may agree to participate in a study without fully understanding the ramifications. Studies need long-term follow-up, and the nature of these missions makes a commitment to that follow-up problematic. Seemingly, the only appropriate research would be retrospective data analysis, although this too requires consent for use of patient records.

Facilitating postoperative follow-up care is mandatory. If it is expected that local physicians will provide this care, they must be identified before commencing the mission, and it must be determined that they have sufficient knowledge, skill, and resources to treat any unexpected sequelae that might develop. This includes the possible need for surgical intervention. It is appropriate to compensate these physicians for providing this care. To avoid leaving complicated problems behind, the mission surgical schedule should be arranged to perform more complicated procedures and ones that are more likely to have postoperative problems early in the trip so the team can deal with potential complications, should they occur, before the team departs for home.

Maintenance of adequate medical records is an ethical imperative. It will be necessary to provide local hosts and future teams with information about what was done during a previous operation so that secondary stages can be planned, and to improve the quality of long-term medical care. The records can be maintained long term by the team, by the local hosts, or ideally by both in the appropriate languages. Although many teams intend to return regularly to the same community, it is often impossible. Having this information available to the patient and their future caregivers is of great benefit.

Just as in developed countries, organizations and teams providing free care in developing countries should have quality improvement committees that evaluate outcomes and make recommendations to prevent future complications.[6] Recommendations of these committees should be dispersed to volunteers and implemented by the organization

whenever possible. All complications that occur require evaluation by the team and the parent organization to determine whether the problem was avoidable and what action must be taken to prevent similar complications in the future. Records of the deliberations of the quality improvement committee should be maintained for future reference and evaluation. Every effort should be made to examine and quantify outcomes, which is admittedly a difficult task in the setting of a developing country.

PROVIDERS

Medical providers (i.e., physicians, surgeons, nurses, and therapists) must be competent, either by training or by experience, in their particular field and generally provide the type of care at home they will provide during a surgical mission. Residents (if they accompany the team) work only under the direct supervision of an attending surgeon, as in a developed country. Training local surgeons is the highest priority. Taking residents from developed countries to perform surgery in the volunteer setting can be a very valuable experience for the resident, but it should not deny local surgeons the opportunity to learn and to provide the surgery themselves in the future. Local hosts should be made aware of any plans for residents to accompany the surgical team. Residents should only participate if it is mutually agreed that it will be a beneficial experience and will not interfere with the opportunities to care for the community and help educate its providers. However, exposing residents to this work and its ethical execution may be very effective in recruiting the next generation of volunteer providers.

Surgical judgment takes on a special significance in a developing country. Procedures that a surgeon can perform competently at home may be contraindicated in a developing country for many reasons (e.g., local infrastructure, equipment limitations, resource inadequacy, follow-up of surgery). Keeping in mind the caveat of doing no harm, it is better to refuse a patient surgery than to risk having an untoward outcome that leaves the patient no better off, or worse off than before surgery. It is also inappropriate to perform surgery if essential postoperative care is unavailable or if multiple stages are necessary and there is no guarantee that those stages will be possible (e.g., tissue expansion, tubed flaps). Staying within the scope of a mission is also advisable. Local hosts with a given set of expectations should welcome a mission. Straying from those expectations to perform procedures outside the agreed scope of the mission may inadvertently impact other local providers who would ordinarily treat those disorders. An awareness of local medical politics will help prevent a well-intentioned act from being misinterpreted and thereby threatening present or future missions.

Bringing nonmedical family members on a medical mission is something that should be done with great thought and caution. There must be a realization that doing so may have an adverse effect on the goals of the mission. Ideally, family members should accompany a team only if they participate as skilled professional team members. When a family member does not have a defined function on the mission, local hosts may feel compelled to provide hospitality. Provisions for such a family member must be made. The presence of any noncritical team member may interfere with the mission carrying out its goals by distracting critical team members or local hosts from their work, especially in the event of illness or injury.

LOCAL HOSTS

All local hosts, professional and otherwise, must understand and concur with the plans and goals of the mission. Ongoing communication with the local hosts is essential before, during, and after the mission. Regulations and requirements of local hosts and governmental bodies must be understood and complied with before, during, and after the trip.

It is appropriate to make financial payments to the local hospitals for the use of supplies, personnel (scrub nurses), or space. It is also appropriate to reimburse patients for travel expenses. At a minimum, every effort should be made to ensure that a medical mission leaves the local community with a zero net cost.

PATIENTS

No discrimination is permitted in any phase of care based on race, religion, sex, ethnicity, national origin, financial status, or sexual orientation of patients. A physician must evaluate every patient (including a complete history and physical examination) to obtain sufficient information to make an informed decision about patient suitability for and the safety of that particular operation. Decisions about whether a patient is a suitable candidate for surgery should be made very conservatively.

Prioritization of care is fundamental and necessary.[7] In most mission settings, it is impossible to treat all of the patients who present for evaluation. Decisions must be made about who is and is not a suitable candidate to undergo surgical

treatment. These decisions may be based on age (young patients have a longer potential lifespan), greatest need, overall medical condition, highest potential productivity, or other criteria. By knowing the criteria for patient selection before patients are evaluated, arbitrary decisions can be avoided. These criteria are best determined by team interaction at the time of evaluation.

RESPECT FOR LOCAL CUSTOM

One of the most sensitive ethical aspects of volunteer surgical missions is to respect local custom without compromising medical care. This applies to all aspects of patient care, including preoperative assessment, level of sanitation, appreciation for prior surgical care, prioritization for surgery, and postoperative follow-up. For example, a child who presents for preoperative assessment may be heavily bundled because of fear of allowing the child to be exposed to the elements or subjected to harsh climates. Undressing this child may be viewed with uncertainty, but the parents must be educated in the need for an adequate examination. The mission team should also be aware that customary levels of sanitation vary in different regions. The practitioner should avoid conscious or subconscious criticism of the living conditions of the patients and their families. It should be emphasized to the patients and their families that certain standards for postoperative hygiene may be necessary to optimize the outcome of a surgical procedure and is not a commentary on their lifestyle or living conditions. If there is concern about hygiene in the immediate postoperative period, the patient should be observed in the medical setting before returning to the home environment.

Prior surgical repairs should be assessed and incorporated into the surgical plans without reflecting judgment as to the quality of these repairs. This is true for surgery performed by local surgeons or previous medical missions. The families may have the highest regard for the practitioner who performed these procedures in the past, and any further work done on these patients should be conveyed as building on these procedures and not as correcting prior surgical errors.

It is important to have familiarity with the local expectations of medical care for the conditions that are being treated. An unrepaired cleft palate may be accepted in a region where only lip repairs have been offered to the community. Although it may be important to provide education on the value of cleft palate repair, care should be taken not to pass judgment on individuals in whom the palate has not been repaired. One or both parents may have unrepaired cleft palates.

Most importantly, the local providers of medical care should be treated with respect. These providers represent their communities and have cared for the patient and their families. They will continue to do so after the volunteer mission is completed. Only by cultivating a reciprocal spirit of learning and respect will the trip have a long-lasting impact on the patient and on their medical communities. The surgical mission must earn the respect of the local medical community. Doing so will ensure that the community will continue to care for the patients in a manner that will optimize the surgical outcomes.

FUNDRAISING

The ethics of fundraising requires that organizations requesting funds truthfully present the scope, quality, and quantity of the work they perform in addition to precise and honest evaluations of how they spend their money. It is appropriate to make judgments regarding the ethical standards of any donor (either individual or organization) before accepting donations. In the spirit of ethical philanthropic stewardship, it is equally important to give feedback to donors regarding the mission outcomes.

SUSTAINABILITY

The long-term solution to providing quality safe reconstructive surgical care in developing countries ultimately rests on having sustainable programs run by local medical personnel.[8] This is best achieved by creating opportunities for education and training of local professional caregivers as a major part of every team trip. Establishing lasting relationships with individuals and groups at the site to be served increases the possibility of ongoing educational programs and enables local medical independence. Financial support for the operations provided by local surgeons may be necessary to allow local caregivers to provide the care for poor patients. This includes infrastructure support for the local physicians to improve the safety and availability of care.

SUMMARY

Ethical dilemmas are inherent in the practice of medicine. Volunteer medical missions are no exception and, in fact, they often expose issues that are unique to that environment. A realization that ethical dilemmas will arise in this environment is critical for anyone planning such a medical mission. Many problems are avoided with pretrip planning and open dialogue with the local hosts. As a guiding

principle, solutions to these dilemmas that are approached from the perspective of best serving the patients and their community will likely yield the most effective and ethically sound results.

Arun K. Gosain, M.D.
Department of Plastic Surgery
Case Western Reserve University
University Hospitals of Cleveland, MS 5044
11100 Euclid Avenue
Cleveland, Ohio 44106
arun.gosain@uhhospitals.org

ACKNOWLEDGMENTS

The authors acknowledge the assistance of Al Johnson, Ph.D., medical ethicist, University of California, San Francisco, San Francisco, California; David Waisel, M.D., Anesthesiologist, Children's Hospital, Boston, Massachusetts; and Devra Becker, M.D., plastic surgeon, Cleveland, Ohio, in the development of this document.

REFERENCES

1. Schneider WJ, Politis GD, Gosain AK, et al. Volunteers in plastic surgery guidelines for providing surgical care for children in the less developed world. *Plast Reconstr Surg.* 2011; 127:2477–2486.
2. Travel.state.gov: A Service of the Bureau of Consular Affairs, U.S. Department of State. International travel information. Available at: http://travel.state.gov/travel/cis_pa_tw/cis_pa_tw_1168.html. Accessed July 10, 2011.
3. Haynes AB, Weiser TG, Berry WR, et al. Surgical safety checklist to reduce morbidity and mortality in a global population. *N Engl J Med.* 2009;360:491–499.
4. World Alliance for Patient Safety. *WHO Surgical Safety Checklist and Implementation Manual.* 1st ed. Geneva, Switzerland: World Health Organization; 2008. Available at: http://www.who.int/patientsafety/safesurgery/ss_checklist/en/index.html. Accessed July 10, 2011.
5. Olweny C. The ethics and conduct of cross-cultural research in developing countries. *Psychooncology* 2007;3:11–20.
6. Eberlin KR, Zaleski KL, Snyder HD, Hamdan US; Medical Missions for Children. Quality assurance guidelines for surgical outreach programs: A 20-year experience. *Cleft Palate Craniofac J.* 2008;45:246–255.
7. Olweny C. Bioethics in developing countries: Ethics of scarcity and sacrifice. *J Med Ethics* 1994;20:169–174.
8. Surgical Humanitarian Aid Resource Europe. espras.SHARE Mission Statement. Available at: http://www.esprasshare.org/. Accessed July 10, 2011.