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Surgical Tourism: the Role of Cardiothoracic Surgery Societies in Evaluating International Surgery Centers

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Keywords

Ethics; health policy; professionalism; medical tourism

Introduction

Robert M. Sade, MD

Patients have crossed international borders for medical care at least since the 19th century, but the pattern has changed over time. Formerly, relatively wealthy patients from developing nations traveled to medically sophisticated countries seeking high-quality medical care. In recent decades, the cost of health care, measured in dollars in this country and in longer waiting times in such countries as Canada, has increased markedly, so the pattern has changed: less affluent patients from developed countries travel to Third World countries for high-quality care, often comprising complex surgery that is readily available at relatively low prices.

Such travel has earned the name “Medical Tourism.” The most common cardiac surgery services include coronary artery bypass, cardiac valve replacement or reconstruction,

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percutaneous coronary angioplasty and stenting, and therapies that are not available in this country, such as stem cell therapy for heart failure[1].

The cost savings can be considerable. The price of a coronary artery bypass graft procedure (CABG) for example, may be as little as $5000 [2], including travel expenses, compared with a cost of $33,000[3] to $63,000[4] in this country. Medical tourism is projected to grow considerably over the next few years.

Several problems are associated with medical tourism. The most serious is the difficulty of evaluating the quality of care. Several accrediting agencies evaluate international health care organizations, but standards are not necessarily the same as in this country. Moreover, even within an accredited health care system, the quality of services in specific departments may vary widely.

Having access to detailed information about the quality of cardiac surgery programs internationally would increase the safety for patients who need cardiac care but cannot afford US prices. No agency would be better qualified to help patients by evaluating international cardiac surgery programs than cardiothoracic surgery specialty societies, but this might not be a wise expenditure of society resources. So we ask the question, should cardiothoracic surgery societies evaluate and rate the quality of international cardiothoracic surgery centers to help patients who want to benefit from low-cost high-quality surgery?

PRO

Jeffrey P. Jacobs, MD, and Michael D. Horowitz, MD, MBA

In order to frame this topic, consider two fictitious patients who travel to undergo cardiac surgery:

> Patient 1 is a 58-year-old successful and wealthy industrialist from Bangalore, India who has coronary artery disease and needs to undergo CABG. Based on the recommendation of his primary care physician who previously practiced at Johns Hopkins University Medical Center, he travels from Bangalore to Baltimore. Johns Hopkins International makes all the necessary arrangements for his medical care, travel, and housing. His wife plans to have cosmetic facial surgery during the same trip if her husband is doing well postoperatively.
>
> Patient 2 is a 58-year-old self-employed plumber from Baltimore, who also has coronary artery disease and needs to undergo CABG. He has no health insurance and cannot comfortably afford surgery in the local market. He has saved money for his 16-year-old daughter's college education. Care at Hopkins would cost $60,000 and deplete his daughter's college fund, causing significant personal and financial distress. He searches the Internet for “cheap heart surgery.” He identifies multiple overseas medical destinations and identifies a surgeon in Bangalore, India who trained at Johns Hopkins University Medical Center and reports having good results in his present facility. The care in India, including travel and accommodations, costs only $12,000, 20% of the cost of care in Baltimore.

Medical tourism may be defined as “an emerging phenomenon wherein citizens of industrialized nations bypass services offered in their own communities and travel to less developed countries to receive medical care.”[1,5,6]. In medical tourism, the direction of travel is opposite of that in the traditional model of international medical travel, exemplified by Patient 1. In the last few decades, surgical tourism, which we define as travel for surgery by patients from developed nations to developing nations, has increased dramatically.

Several reasons explain why a patient from an industrialized nation would engage in surgical tourism. First, the patient might not want to wait for care in the home country where waiting lists are long. Second, the patient might travel to receive care not available in the home country, such as new chemotherapeutic agents or drugs and some forms of stem cell therapy. Third, the patient might travel to ensure privacy and confidentiality, as exemplified by patients who travel for cosmetic surgery, alcohol or drug rehabilitation, or surgery for gender reassignment. Fourth, the patient might travel to undergo surgery in luxurious accommodations with attentive service, possibly in a desirable vacation destination. Fifth, the patient might travel because the patient cannot afford care in the home country. Consideration of this last group provides the strongest argument for the proposition that "thoracic surgery societies should evaluate and rate the quality of international cardiothoracic surgery centers to help patients who wish to benefit from low-cost high-quality surgery."

To support this argument, one must explain how to carry out the evaluation, why to do it, and the ethical justification for doing it.

How to Do It

The tools already exist for thoracic surgery societies to evaluate and rate the quality of international cardiothoracic surgery centers. The Society of Thoracic Surgeons (STS) National Database is the largest clinical cardiothoracic surgical database in North America[7]. The STS Adult Cardiac Surgery Database (STS–ACSDB) was established in 1989, and, by the end of 2012, it had accumulated records from [**4,858,589**] cardiac surgical operations.

STS–ACSDB captures detailed clinical data on adults undergoing cardiac surgical procedures performed by participating surgeons throughout the United States. The collection and analysis of data over a 22-year period has been shown to improve patient outcomes[8]. Feedback provided by center-specific reports allows participants to evaluate their own local results and to compare these results with contemporary national risk-adjusted benchmarks. Using risk-adjusted data from STS–ACSDB, STS has created risk models with endpoints of mortality and morbidity for several common cardiac surgical operations[9,10,11]. The STS National Database has also served as the basis for the development of numerous performance measures that have been endorsed by the National Quality Forum (NQF) [12].

Isolated coronary artery bypass grafting (CABG) is the most common operation in the STS National Database. The STS CABG Composite Score measures the quality of care delivered to patients undergoing isolated CABG [13,14]. STS–ACSDB is now used as a platform for national voluntary public reporting of cardiac surgical outcomes, and the STS CABG Composite Score is now publicly reported [15,16].

In 2013, STS will begin publicly reporting outcomes after isolated surgical aortic valve replacement (AVR) using a similar STS AVR Composite Score[i]. Similar tools exist within the STS National Database to evaluate the quality of care of pediatric and congenital cardiac surgery [18] and general thoracic surgery [19].

These technologies could be used to evaluate and rate the quality of international cardiothoracic surgery centers with unparalleled accuracy.

Why to Do It

How can Fictitious Patient Number 2 in the scenario above decide if the hospital where he will travel can provide him with care of acceptable quality? How can he decide if the cardiac

surgical program at this hospital is of suitable quality? Information gathered by word of mouth or from the Internet is likely to be incomplete and inaccurate. Professional specialty societies have the tools to make this assessment and also have the professional responsibility to share this information [20,21]. Thoracic surgery societies should evaluate and rate the quality of international cardiothoracic surgery centers simply because it is our professional responsibility!

Importantly, evaluating the quality of international cardiothoracic surgery centers is consistent with the mission of STS "to enhance the ability of cardiothoracic surgeons to provide the highest quality patient care through education, research, and advocacy" [22]. STS represents "over 6,600 surgeons, researchers and allied health care professionals worldwide who are dedicated to ensuring the best possible outcomes for surgeries of the heart, lung, and esophagus, as well as other surgical procedures within the chest". STS members are located in 85 countries[ii]. Evaluation of the quality of international cardiothoracic surgery centers is an opportunity for the STS to extend its mission and activities across the globe. In fact, the STS National Database currently includes participants from United States, Canada, Brazil, Israel, Japan, and Turkey. The STS International Database Relations Task Force is engaged in dialogue with multiple other potential international participants. Eventually, international participation should be possible in the STS Adult Cardiac Database, the STS Congenital Heart Surgery Database, and the STS General Thoracic Database. So globalization is already underway, and this activity simply proposes an added use that is of substantial potential value to many patients and surgeons.

Ethical Justification

This decision of whether or not a professional society should evaluate international programs involves a complex set of ethical concerns which include autonomy (informed consent), beneficence (do good), non-maleficence (do no harm), and justice (equal treatment for all) [24].

Regarding autonomy, in order for Patient 2 to give informed consent, he must have reliable information that he can understand what is at stake for him. Without these data, he cannot give informed consent. No one is better prepared to provide the data than professional medical societies. Professional medical societies have the tools to provide these data in a format that patients and their families can understand. Indeed, many cardiothoracic surgeons currently practicing outside of the United States of America already have a profile in the STS National Database because of previous practice in the United States. The opportunity for continued participation in the database for those practitioners who return to their home country would be an excellent strategy to extend the value of the STS National Database across the globe – and to provide patients with access to important and useful information.

Regarding beneficence, it is clearly good for us to help our patients make appropriate decisions. Regarding non-maleficence, we do not hurt our patients by giving them these data. And we do not hurt our health care system financially because many of these patients cannot afford to have these operations done in the United States of America anyway. Illness and injury are the most common precipitating events for financial bankruptcy. How does the local facility benefit if Patient 2 agrees to a payment plan but ultimately defaults? Greater benefit would be achieved for all (including providers) if Patient 2 is able to get care in a high quality facility that can provide care at lower cost because it is located in a destination where medical care is more affordable.

Potential modifications to the health care system in the US may create a system in which health care is truly affordable to all. These modifications may therefore decrease the number of patients who engage in medical tourism, because they can now afford care in this country.

However, these same potential modifications to our health care system may increase the number of patients who engage in medical tourism because they do not want to wait for care in the home country when waiting lists grow.

Finally, regarding justice, Patient 2 deserves access to quality medical care delivered in a timely fashion. We all do!

CON

Constantine Mavroudis, MD, and Allison Siegel, MA

In 2007, an estimated 750,000 Americans travelled abroad to receive medical treatment [25] and 6 million Americans were forecasted to travel for health care in 2010 [26]. Approximately 47 million uninsured or underinsured health care consumers in the United States as well as the insurance companies and small businesses who pay for American health care are driving the demand for medical and surgical tourism [27,28].

American surgical tourists, however, are challenged by largely unknown factors relating to the quality of institutional and caregiver professional oversight. For example, a lack of oversight increases the risks facing medical tourists [29]. Current studies suggest that poor outcomes are attributable to substandard surgical care. Inadequate preventive measures, especially in patients who travel long distances [29,30], increase the incidence of deep vein thrombosis and pulmonary embolism. Wound sepsis is a result of inadequate infection control and improper use of perioperative antibiotics [31].

Establishing Guidelines

Currently, no central organization evaluates the quality of international surgical centers, let alone international cardiothoracic surgery centers. Many international organizations are establishing guidelines that can confer a modicum of professional oversight. The World Health Organization (WHO) recently established a 19-point surgery safety checklist to be used in medical facilities worldwide, which includes processes such as preoperative goals assessment, “time out” sessions, and postoperative protocols [32].

The American Medical Association (AMA) encourages employers, insurance providers, and any other promoters of medical tourism to adhere to 9 principles that affect voluntariness and safety of medical tourism [33].

The American College of Surgeons’ Statement on Medical and Surgical Tourism states that prospective medical tourists should become informed of potential risks and complications as well as medical, social, cultural, and legal implications. Furthermore, medical travelers should not be forced to seek care overseas by their payor plans, and the right to seek care without restriction must be maintained [34].

The Present State of Overseas Credentialing

The credentialing process that establishes quality of care for overseas health care facilities should be based on (1) board certification for physicians; (2) service credentialing for various hospital functions such as cardiac catheterization, pharmacology standards, emergency department certification; (3) quality assurance metrics such as Society of Thoracic Surgeons (STS) National Database participation [35], mortality and morbidity conferences, pre- and postoperative comprehensive conferences; and (4) hospital credentialing from organizations such as Joint Commission International (JCI) [36,37,38].

To determine whether cardiothoracic surgery societies should evaluate international cardiothoracic surgery centers, one should consider how this administrative process would function. The STS could perform this function as long as the Board of Directors, supported by the membership, agrees to and establishes guidelines of application, due process, and proper remuneration for the administrative services rendered. Volunteer surgeons would have to review and vet the application for genuine intent and veracity of content including on-site visits. Qualifications of the volunteer surgeon workforce would have to be explored in the context of conflicts of interest, time commitments, and overall knowledge of geopolitical forces; this would be a daunting task.

Currently, all entities that promote medical tourism are exploring methods to address quality and safety for international medical care, through JCI accreditation [39]. Some believe that local legislative bodies should regulate local medical facilities. The World Health Organization, JCI, and International Organization for Standardization, as well as accreditation associations within each country recommend tracking outcomes to improve quality. JCI is the global division of the US-based Joint Commission, whose standards and qualifications are derived from international consensus [28,40,41,42]. JCI works closely with hospitals, government agencies, providers, insurance companies, patients, legal experts, medical consultants, and others involved in health care. JCI also establishes international partnerships to coordinate accreditation more globally; these partners adhere to many of the same standards, rules, and survey processes that JCI uses. In addition, many countries have their own accrediting bodies that put forth standards and regulations that closely mirror (and sometimes exceed) JCI accrediting standards[30,40].

Challenges for International Cardiothoracic Surgery Centers

Thoracic Surgery Societies

As we have seen, US professional organizations are presently advising the public about surgical and medical tourism. The question for this debate is whether thoracic surgery societies should evaluate the quality of international cardiothoracic surgery centers.

Thoracic surgery societies currently evaluate local cardiothoracic surgery centers to improve quality of care. They monitor physician credentialing by board certification for those who trained in the US. Professional organizations such as the American Association of Thoracic Surgery and STS promote clinical workshops, resulting in continuing medical education credits and proof of educational experiences. Often, overseas sites collaborate with US programs in multi-institutional research protocols and databases, as well as twinning programs [43,44]. Whatever organization takes on this role, it must manage physician credentialing, database participation, verification, and quality control metrics.

Quality International Database

To improve quality of care internationally, quality measures from medical facilities throughout the world must be reported to a central international database, a registry [35,40]. Clinical outcomes and standard informed consent practices should be tracked and made available to prospective medical travelers [45]. Furthermore, the registry should track the flow of medical travelers, document procedures and facilities visited, verify physician qualifications, and evaluate safety. Challenges that a centralized worldwide registry can face include the decentralization of the global marketplace and many procedures being performed privately [4,46].

Cultural Familiarity

Cultural sensitivity is encouraged in our health care ethos, which may or may not be available in overseas health care units. All hospitals in the US and Canada, faith based or not, have on staff pastoral care to accommodate patient needs. While these services are no doubt available in foreign sites, religious affiliations, cultural mores, and reassuring methods may be unfamiliar to the patient and perhaps exacerbate rather than alleviate anxiety. Language barriers may be so prevalent that informed consent, which is the basis for honoring the individual's responsibility for her own destiny, is compromised. While common language is required for informed consent, it is also important to have common understanding, common ethos, and clear conveyance of sympathy, all of which could be severely compromised in foreign countries, not owing to poor intentions but owing to difficult communication [47].

The Global Economy and the United States Economy

The AMA noted that medical tourism signals an American health care in crisis[28]. Just as automobile manufacturing and textile production moved out of the United States, Americans are increasingly outsourcing their health care to medical facilities overseas [48,49]. Global telecommunications, transportation, and interconnected economies have contributed to the outsourcing of jobs, specifically in health care: transcriptions, accounting, and insurance claims[49]. Approximately 30 to 40 million US jobs could move to China, India, and other countries[25,28,30].

While popular in some settings, surgical tourism is not used by the great majority of the American public. It is, however, becoming more popular through marketing and attractive packaging, much the way travel companies advertise destinations to consumers[41,42]. American health care will suffer. Some health care institutions will inevitably close or be downsized[41,42], ultimately leading to abandonment of the economic, health care, and work force infrastructures. Moreover, those who have insurance and do not use American health care are abandoning their tacit responsibility to less fortunate Americans. Physicians, hospitals, and other health care providers charge and collect higher fees from private insurers in order to support the services that are not supplied by Medicare, Medicaid, and self-pay patients — so-called cost shifting. This may result in escalating health care costs already spiraling out of control. Should American professional organizations engage in credentialing of overseas health care programs, which can harm American medicine and the American economy?

Medical Errors and Legal Recourse

There is a great deal of uncertainty regarding medical tourism and legal relief for malpractice. Mirrer-Singer noted that currently legal recourse for unsatisfactory treatment overseas is legally undefined, and medical tourists may encounter numerous challenges when seeking legal recourse [50].

Summary

In the end, ethical principles of autonomy (respect for the individual), beneficence (doing good for the patient), non-maleficence (avoiding harm), and justice (treat all patients fairly) support the patient in doing what she wants to do with her own life. However, thoracic surgical societies are under no obligation to facilitate this practice, given the potential negative consequences to our health care structure, our culture, and our economic well-being.

Concluding Remarks

Robert M. Sade, MD

This discussion has brought out at least one undisputed fact: medical tourism is very large and is growing rapidly. One of the most frequent reasons for seeking surgery abroad is the availability of significantly discounted prices for cardiac surgical operations, a lure this country is unlikely duplicate readily. It also seems clear that patients traveling overseas for cardiac surgery face some risks that are beyond the ability of the US medical profession to mitigate. The specialty of cardiothoracic surgery can help at least one of the sources of potential trouble for surgical tourists, however, by providing patients with information on the quality of care that can be expected in specific institutions in other countries. Gathering information and evaluating cardiothoracic surgery programs is something we as a profession can do — the question is whether it is something we ought to do.

A major point of Mavroudis's contrary argument is that medical tourism threatens the US health care infrastructure and is likely to close or downsize some health care institutions. He bases these assertions on the work of Devon Herrick, but Herrick does not oppose medical tourism, rather, he strongly supports it because of its beneficial effects on health care[41,42]. Herrick cites a few downsides to medical tourism; for example, while the effect of increasing global competition will lead to increased efficiency and lower costs in our own health care system, at the same time tourism could increase labor costs because of a slowly diminishing supply of physicians and nurses, who will be increasingly likely to return to their home countries after training in the US.

Jacobs and Mavroudis have both used available facts to make reasonable arguments. Medical tourism clearly is growing, but it is still too small relative to the US health care system to have important effects, positive or negative, on the economics of our system. As tourism becomes bigger, we will be able better to judge its consequences for our economy. Meanwhile, physicians as individuals and as a profession have ethical obligations to patients, and the benefits of helping our patients to make wise and well-informed decisions about where to undergo cardiac surgery seem to substantially outweigh the potential risks that traveling patients face and the relatively minor harms posed by medical tourism to our health care system at this time — this balance could change in the future, however.

Cardiothoracic surgical organizations must consider many factors before committing to evaluating and rating cardiothoracic surgical programs in developing countries. Major factors that were glossed over by both essayists are administrative costs and other financial issues associated with providing those services; these factors will weigh heavily in organizational deliberations. While our organizations consider whether to proceed with international program evaluations, we can hope that they will take into account the ethical considerations explored in this discussion.

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