So you want to run a mission. Now what?
Planning and safety for international cleft missions

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Abstract
As little as a decade ago there were no commonly accepted standards for international mission cleft care in developing countries. In those countries medical personnel often complained that inadequately skilled surgeons, with little local support, were performing second rate repairs and leaving behind complications with inadequate follow up. Several large funding organizations were providing funding of medical missions without regard for the cleft experience of the surgeons, or safety standards, or make up of the team. The term "medical safari" was applied to many of these missions which were really a funded chance to visit another country and do some surgery and tourism. In 2005 the American Society of Plastic Surgery created the Volunteers in plastic surgery committee (VIPS) to examine and make recommendations regarding international cleft teams that would improve the standard of care and safety. Experienced international cleft surgeons along with representatives from the Pediatric Anesthesia society developed and published a set of guidelines for the care of children in the less developed world.

(Schneider,WJ ,Politis GD, Gosain AK ,Migliori MR, Cullington JR, Peterson EL, Corlew DS, Wexler AM, Flick R, Van Beek AL “Volunteers in Plastic Surgery (VIPS) Guidelines for Providing Surgical Care for Children in the Less Developed World “ Plastic and Reconstructive Surgery Feb 2011).

Concurrently and independently Operation Smile, the largest American international cleft organization, convened a conference of its volunteer surgeons, anesthesiologists, pediatricians, and nurses from around the world to help standardize the care and safety of international cleft patients and provide the same first world standard of care to every child cared for in an international mission . The product of the Operation Smile international work groups was "Operation Smiles14 global standards of care” which was adopted by the 57 member countries within the Operation Smile mission network. These standards have also been applied to the new paradigm of International cleft care, which is the creation of freestanding cleft centers which are staffed and run year round by both local and international medical personal. The combination of these two documents provides a comprehensive outline for site preparation, team make up, credentialing, equipment and safety standards so that every cleft child and their family can expect the same high level of care no matter where they live in the world.

Running an international cleft mission is a lot like performing an aerial on a gymnastics balance beam, both require forethought, extensive training, and a great deal of flexibility. Remember as well that in developing countries, your efforts do not always have predictable consequences. Additionally, you cannot count on systems and structures within the healthcare system that normally you would take for granted. For these reasons it is important to consider every step in the continuum of your patient care, and always consider the "what if ? " scenario so that there are viable backup plans for every "what if?" you might encounter. The recommendations of this paper are derived from the VIPS and Operation Smile global standards documents.

Mission planning usually begins with a choice of location. One should take into account the following considerations when making that choice.

1. Need: is there a need for the service to be provided. Who requested the services to be provided, and what was the basis for their request?
2. Coordination: are there other organizations providing the same service at or near the same time?
3. Facility: does the facility have the space, services, staff and equipment necessary to provide safe care to the type of patient you will be caring for?
4. Logistical support: Is there food, housing, and transportation available for the team, as well as for the patients and families?
5. Professional support: Are there members of the local professional community committed to assist in the care of the patients and provide follow-up care should it be necessary after the team departs?
6. Political support: Is the local government supportive of the work that is planned?
7. Team safety: Is the location safe to visit?

With regard to coordination with other cleft teams the volunteers in plastic surgery (VIPS) committee currently maintains a calendar for cleft team missions and although incomplete may be helpful for not having competing missions at the same place during the same time. This calendar may be found on the ASPS web site under the VIPS section. Additionally, the larger cleft groups like Operation Smile and Resurge list their mission schedules on their individual websites.

Once you have selected a country and location the next most important decision is the selection of your host hospital. It is highly recommended that a site visit to the hospital be performed, prior to bringing in a cleft team. With regard to the hospital selection the following considerations should be taken into account.

1.Electrical power that is dependable and continuous. Contingencies for failure should be considered.
2. Working, modern anesthesia machines that have been recently checked and calibrated.
3. Dependable oxygen supply for all care areas including sufficient back up should the primary source fail.
4. Full function monitoring for each patient in the operating rooms. Monitors should be capable of providing continuous evaluation of ECG, BP, SaO_2, end tidal CO_2 and temperature. Pulse oximetry should be used, at least initially, for all children in the recovery area. ECG, non-invasive blood pressure and pulse oximetry should be immediately available in all care areas.
5. Working suction should be present at each OR table, as well as in the recovery area and should be immediately available in all other care areas.
6. Basic laboratory and radiology services should be immediately available including the ability to obtain hemoglobin, and electrolytes.

7. Blood banking: the capability to transfuse either properly cross-matched, type specific, or O negative fresh whole blood or packed RBC's should be available at all hours whenever the possibility of significant blood loss exists.

If needed equipment is not available in your proposed hospital one should plan on bringing that equipment with your team. The addition of a biomed technician to your team is a valuable asset.

Remember that your team will be displacing to some extent, the regular operating teams of that hospital. It is therefore extremely important that you have coordinated your visit with their surgical Chief of Staff, Hospital Director, and have the support and buy-in of the local surgeons and operating room personnel.

Once you have selected your location and hospital one should consider the makeup of your proposed cleft team. Teams may include not only surgeons, but also anesthesiologists, pediatricians, pediatric intensiveists, dentists, nurses, speech therapists, medical records personnel, and translators. It is important that these specialists be credentialed with regard to their individual specialty and have the requisite training and experience required for the care of cleft children.

I will not belabor the equipment lists required for a mission as these can be easily found within the VIPS and Operation Smile documents.

Transporting your team and equipment into your host country also may present certain challenges. It is very helpful to have in country contacts who are familiar with the customs regulations that you may encounter when trying to bring your equipment into the country. Additionally special visas may be required for your team, and in many cases a temporary license to practice for that country must be obtained prior to your arrival.

When you first arrive at your mission site you are likely to find dozens or potentially hundreds of potential patients and their families already present. The process of setting up screening stations and appropriate patient flow pathways is extremely important. It is helpful to pretend that you are the patient and walk-through every potential stop from first encounter through the preop, operative, postoperative, and discharge phase of that patient's care. Be particularly cognizant of what could go wrong, and what safety issues our present for each station in that pathway. Remember that in many cases these patients are traveling with their families who will be staying with them in the hospital as well. Consider what food sources will be available for both the patients and their families.

The three most important aspects however of any mission are safety, safety, and safety. One must provide safety not only for the patients but for your team as well. With regard to patient safety, the most important factor is proper patient selection. Remember that children in developing countries may be undernourished, may have concominent serious medical illness and infectious diseases, and often do not have the healing reserve we normally encounter in children of developed countries. Consider the following risk factors to disqualify a child for surgery.

1.ASA PS 3 or greater

2. Poor nutrition: Children that are obviously malnourished, in that height weight or head circumference are well below that expected for age.

3. A hemoglobin < 10 gms (greater at altitude).

4. Significant airway anomalies

5.Age less than one year

6.intercurrent illness (Uri)

When it comes to patient selection do not push the envelope you cannot "get away" with higher risk factors that you may routinely entertain in your own practice.

With regard to surgery, anesthesia, and pre-and postoperative care, it is important to have written protocols and procedures and adhere to them. Team communication is another essential safety issue. Translation or understanding of a common language is essential for both team to patient communication as well as team and local professionals communication. Additionally it is important to understand the cultural hierarchy of the in country healthcare team as it may be virtually impossible within that culture for a lower ranking healthcare professional to communicate a safety concern to his or her superior. For this reason a leveling of the hierarchical structure with empowerment of everyone on the team to identify and communicate a safety issue is critical.

With regard to operative technique, use simple straightforward well-proven techniques with which you are familiar. This is not the time to try new techniques. In general, I often use one size suture larger than I routinely do at home in my repairs.

The use of a throat pack is highly recommended for any palate surgery, as blood in the trachea may cause bronchoconstriction and airway obstruction on extubation. Remember to communicate the throat pack placement and confirm its removal with all members of the operative team.

Team safety is another critical element in your mission planning. If you or your team members are sick or injured they cannot provide the care to those you wish to help. With this in mind secure housing and secure transport to and from the hospital will be required. An adequate supply of safe drinking water particularly in hot environments will need to be provided at both your hotel and the hospital. Stress to your team the importance of food safety with regard to what they are eating. Constant hand washing and the availability of waterless hand cleansers can be instrumental in keeping team members healthy. Be aware of the environmental dangers in your location. Team members should not wander off alone and team leaders should be informed of the plans of those wishing to take advantage of the local culture and sites.

Lastly, be organized, be flexible, and be creative, as you can be assured that every day of your mission there will be new challenges that you had not considered. International cleft care can be one of the most rewarding aspects of a health care professional's practice. By providing this care we have the unique opportunity to change the lives of children and their families for the better. We also have the duty to treat each child as if they were our own.