Volunteers in Plastic Surgery (VIPS)

Guidelines for the Care of Children in the Less Developed World

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INTRODUCTION

Many physicians, nurses and other health care providers are involved in short term surgical care of children in the less developed world. They provide an enormously important service to children that probably would not otherwise receive medical care. Care may involve a variety of procedures ranging from a cleft lip repair to a complex craniofacial reconstruction. Regardless of the type of care the overriding goal should always be the safety of the child.

Patient safety can be optimized by careful selection of patients, facilities, procedures, equipment, and staff as well as by close coordination with host professionals and officials. As with care at home preparation is critical to the provision of high quality care in the developing world.

This document is intended to provide a framework for the delivery of high quality safe care for providers and organizations involved in the care of children in the less developed world. The document is organized to briefly examine various aspects important to mission planning and organization including mission site and facility, appropriate selection of patient and procedure, professional staff, and necessary equipment. The primary focus of these guidelines is patient safety. The guidelines do not address many of the other important aspects of international charitable work such as cost, host relations, travel, logistics, staff safety etc. Each of these, although important, is not the focus of this effort.

This document is presented as an attempt to provide a recognized guideline to which both teams and hosts may refer to when undertaking to care for children in developing countries. They are intended as a general guideline, which can be modified by organizations, individual providers and hospitals and may be adapted to many different situations, taking into consideration the resources available to the provider and the needs of the individual patient. Variations and innovations to these guidelines may be appropriate in certain settings.

SITE VISIT

Prior to any mission to a new location or hospital, a site visit should be undertaken either by an anesthesiologist or surgeon with experience working in the developing world and with the organization involved. Sometimes an invitation to provide service is extended because of a need for training local personnel in the organization of periodic missions, or in the particular surgical and nursing skills of a surgical subspecialty. In other instances, the goal is clearly to provide surgical services where none are otherwise available. The principal goals of the trip – training, education, or provision of service – should be mutually clear to the participants from both the visiting organization and the host site. A clearly articulated understanding of these goals will dictate many aspects of the trip, including resources to be mobilized, the expected level of involvement of visitor and host providers, and the local community's expectations for the outcome.

The specific goals of the site visit are several and include:

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?

Each of these questions must be addressed fully before the team arrives for the mission so that care can be provided safely and efficiently during the mission and the organization is welcomed back in the future. Every individual and group involved in this type of care must recognize that the impression they leave behind has a profound effect on how future mission groups are viewed. Appendix A is an example of a site evaluation form.

When preparing for a mission it is important to recognize that what may be appropriate for one site or patient or facility may not be for another. For example providing care for an infant undergoing a complex craniofacial procedure is vastly different than repairing the cleft lip of a school age child.

When evaluating patients and facilities and determining need for equipment and personnel it is sometimes useful to divide patients and procedures into those that are complex and those that are non-complex. Complex procedures (craniofacial repair) in complex patients (infant) require a different level of professional expertise (surgeon, anesthesiologist, intensivist) and facility (PICU, blood bank, laboratory) than non-complex procedures (cleft lip) in a non-complex patients such as American Society of Anesthesiologists Physical Status 1 (ASA PS 1, see Appendix).

These examples are very clear. However, often the differences are more subtle but no less important. It is clear that more complex patients and procedures are associated with greater anesthetic and surgical risk. Before taking on additional risk teams must have sufficient professional expertise, equipment and facilities. The terms complex and non-complex will be used throughout this document to assist in categorizing patients and facilities so as to clarify the requirements for the provision of the highest quality and safest care possible.

FACILITIES/SITES

All facilities should meet basic standards such that there is availability of the equipment and support necessary to care for all patients regardless of whether they are complex or non-complex. In situations where these standards are not met by the facility the team is required to bring with them the supplies and equipment necessary to meet these basic standards.

Basic facility requirements include:

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, SaO2, end tidal CO2 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, electrolytes, and CXR.

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.

For organizations or teams intending to care for complex pediatric patients or to perform complex procedures the following additional services or resources should be available.

1. Fully staffed and equipped pediatric intensive care.
2. Comprehensive on-site laboratory and radiology services
3. 24 hour blood banking services

PATIENT

Surgical and anesthetic risk is affected by a variety of factors related to the patient. Separating risk that can be attributed to anesthesia or to surgery is fraught with difficulty and for the purposes of this document of somewhat limited value. All surgical and anesthetic procedures are accompanied by recognized risks. It is essential that all patients be informed of both the possible adverse outcomes as well as reasonable surgical expectations.

Based on the available literature there are several factors that are widely recognized as contributing to risk. They include:

1. Age: Multiple publications using a variety of endpoints have identified age as a significant risk factor in children. Most use either death or cardiac arrest as endpoints and suggest that neonates (0-30 days) are at a risk that is as much as 40 times and infants (1-12 months) 4-5 times that of older children or adults.
2. Co-existing disease: Children with significant heart disease, lung disease, neuromuscular disease, metabolic or syndromic abnormalities have been repeatedly shown to be at increased risk. Studies using the American Society of Anesthesiologists Physical Status Classification system suggest that risk increases for children in ASA class 3 or greater (Appendix B ASA classification system).
3. Intercurrent illness: Children who are ill especially those with upper respiratory tract infections are known to be at increased risk for peri-operative respiratory complications. The magnitude of the risk varies depending on factors such as procedure, airway management and age. Those children with known lower respiratory tract infections and/or a febrile illness are clearly not appropriate candidates for elective procedures.
4. Poor nutrition: Although studies performed in developed countries typically do not examine nutrition as a risk factor, it is widely recognized that

nutritional status is a marker for chronic disease in children. Failure to achieve milestones for height, weight and head circumference appropriate to the setting should be considered a marker of elevated risk especially in young children. The presence of anemia may also be a marker of poor nutrition and hence be associated with increased risk. Hemoglobin values less than 10 gms have traditionally been used as a lower limit although data for this is lacking.

5. Airway abnormalities: Although congenital and acquired anomalies are known to increase risk, those specific to the airway are of particular concern.
6. Timing: It is important to recognize that virtually every study of risk has demonstrated that emergency procedures and procedures performed during off hours carry increased risk.

Based on the above considerations, complex anesthesia patients are those pediatric patients that have one or more of the following:

1. Age less than one year
2. ASA PS 3 or greater
3. Poor nutrition: Children that are obviously malnourished, in that height weight or head circumference are well below that expected for age.
4. A hemoglobin < 10 gms (greater at altitude).
5. Significant airway anomalies

PROCEDURE

Complex surgical lesions, such as patients with cleft lips and/or palates that are associated with other significant congenital anomalies or complex syndromes known to be associated with substantially elevated surgical or anesthetic risk, or those that require a tongue flap to close a palatal fistula, pollicization of the thumb, extensive skin grafting where excessive bleeding is likely, microtia requiring rib graft, or entry of the abdominal or thoracic cavity are in general not appropriate for mission surgery. Those groups intending to perform procedures such as pharyngeal flap or sphincteroplasty and/or microsurgery must ensure that proper personnel, equipment, and facilities are available and that patient selection is appropriate. Additionally, taking on procedures that are associated with significant risk of blood loss, such as cleft palate repair, in patients with a starting hemoglobin of less than 10 is not appropriate for most mission settings. When planning procedures for VPI, consideration should be given to whether speech therapy follow-up is available locally.

STAFF

Selection of professional staff appropriate for the patient, procedure and setting is critical to safety and quality of care. As with facilities there are basic requirements for professional staff that apply regardless of the complexity of procedure or patient. All professional staff should have an active license as appropriate to their specified role. Every team should include the following:

1. Surgeon(s):
    a. Those providing surgical care should be familiar with the planned procedure(s) such that they demonstrate competence in these procedures.
    b. Surgeons should be board certified/eligible in a surgical specialty or non-US equivalent appropriate to the planned procedure(s).
2. Anesthesiologist(s):
    a. At least one anesthesiologist should be included as a part of all surgical teams.
    b. Anesthesiologists should be experienced in the care of children such that he or she cares for children undergoing the same or similar procedures as a significant part of their regular practice.
    c. Anesthesiologists should be board certified/eligible by the American Board of Anesthesiologist or its non-US equivalent.
    d. In general Anesthesiologists should supervise no more than two procedures at any given time. A ratio of 3:1 may at times be appropriate, however.
3. Certified Nurse Anesthetist(s)
    a. CRNA's can be an integral part of the anesthesia care team and may provide direct anesthesia care under the supervision of an anesthesiologist with the qualifications listed above.
    b. As with anesthesiologists CRNA's should be appropriately certified and experienced in the care of children undergoing the same or similar procedures.
4. Pediatrician(s)
    a. Each team should include a pediatrician, family physician or other physician experienced in perioperative evaluation and care of children undergoing the same or similar procedures.
    b. Physicians should be board certified/eligible by the American Board of Pediatrics, American Board of Family Physicians or the non-US equivalent.
5. Nursing
    a. Operating room, recovery area and ward nurses should be experienced in the care of children appropriate to their role as a member of the team.

Recommendations for appropriate staffing ratios are included below. Ratios are primarily dependent on the number of operating tables that are to be used. In general the following are appropriate:

Surgeons:

- (1) for each operating table

Anesthesia providers:

- (1) for each operating table plus at least one anesthesiologist free to supervise and assist.
- At least (1) free anesthesiologist for every (4) operating tables such that at least (1) anesthesiologist is always free to assist in any room, PACU, or ward. If the PACU is not separately staffed with either a pediatric intensivist or anesthesiologist it should, for staffing purposes, be considered an additional room.

Pediatrician, Family Physician or other experienced Peri-operative physician:

- (1) for each mission
- Pediatric intensivist for missions involving complex procedures or patients

PACU nursing

- A ratio of (1) nurse for every (2) operating tables
- A minimum of (2) PACU nurses

When planning for missions that involve complex procedures or patients staffing needs are increased. It is suggested that a pediatric anesthesiologist be included as a part of any mission that involves the care of pediatric patients with any one or more of the risk factors listed above. A Pediatric anesthesiologist should also be included when procedures that may be considered complex are planned.

Missions involving pediatric patients or procedures that may reasonably require post-operative intensive care should include a pediatric intensivist and nurses experienced in pediatric critical care. Consideration should also be given to including a pediatric respiratory therapist if the need for mechanical ventilation is expected.

EQUIPMENT

Teams performing procedures in the less developed world should expect to provide all of the equipment and supplies needed to perform the intended procedures. Care should be exercised when using supplies or medications purchased in the host country, especially if they are not in English or unfamiliar drugs. In general, the supplies and equipment needed in a developing world hospital are not different

than those needed in a modern hospital. As is expected when practicing in more developed countries, medications, disposables etc. should be single use. Items normally disposed of at home should not be re-used by the team when caring for children in other countries.

Recommended equipment required to care for any child includes but is not limited to the following: Starred items are essential for those teams caring for complex patients or performing some complex procedures

- Modern functional anesthesia machine with a calibrated vaporizer (sevoflurane is preferred).
    - Functional mechanical ventilator capable of ventilating pediatric patients*
- Multifunction patient monitors that have the following capabilities
    - Continuous multi-lead ECG
    - Automated Blood pressure
    - Pulse oximetry
    - Temperature
    - End tidal CO2
    - Invasive blood pressure monitoring capability*
- Airway equipment including
    - Appropriate laryngoscopes and blades
    - Laryngeal mask airways
    - Self inflating bag-valve-mask in all care areas
    - Emergency cricothyroidotomy kit
    - Fiberoptic bronchoscope*
- Emergency medications
    - Pressors (dopamine, epinephrine, vasopressin etc)
    - Anti-dysrhythmics (lidocaine, esmolol, adenosine, verapamil, digoxin, amiodarone etc)
    - Atropine
    - Succinylcholine
    - Dantrolene
    - Sodium bicarbonate
    - Calcium gluconate
    - Diphenhydramine
    - Dexamethasone
    - Naloxone
    - Furosemide
    - Magnesium sulfate
    - Broad spectrum antibiotics (ceftriaxone, gentamicin)

    - HIV starter kit
- Emergency Vascular access
    - Intraosseous needles
    - Central venous line kits
    - Arterial line kit*
- Other
    - Medication infusion pumps*
    - Defibrillator
    - Portable pulse oximetry
    - Stat laboratory (I-stat)*
    - Portable oxygen supply

* Essential for those teams caring for complex patients or performing complex procedures.

OUTCOMES

Trip planning should anticipate the need for follow-up of patients post-operatively in order to monitor surgical outcome, address surgical complications and track all peri-operative complications. This would best constitute a physician and at least one medical support professional that are present with the team and understand postoperative management.

In country personnel with appropriate skills for following up post-operative care should be identified and trained to report all post-operative outcomes to the sponsoring agency's medical supervisors.

QUALITY IMPROVEMENT

It is strongly recommended that every organization develop a means of collecting quality improvement (QI) data. Data that should be monitored might include:

1. Critical events, such as cardiac arrest, respiratory failure, and death; unanticipated escalation in level of care (post-op ventilatory support, ICU-equivalent care), unanticipated need for transfusion, life-threatening emergencies, or return to the OR to manage complications.
2. Anesthesia quality markers such as unanticipated difficult intubation, laryngospasm requiring re-intubation, PACU re-intubation, bronchospasm, cancellation after induction of anesthesia, etc.
3. Specific surgical complications such as wound infection, dehiscence, etc.

ADVERSE OUTCOMES:

Organizations should have an understanding of how adverse outcomes will be managed which reflects cultural issues, the political climate of the local facility and medical staff, and reflects honest and thorough medical care. Examples of adverse outcomes would include death, serious injury, medical evacuation, or unanticipated ICU care. It is suggested that a written plan for managing these situations be formulated by each organization.

The recommendations contained within this document are guidelines and therefore not intended to be comprehensive requirements and do not represent a "how to" manual for those wishing to participate in this type of practice. Rather the guidelines are an attempt to provide accepted criteria to which both teams and hosts may refer to when undertaking to care for children in a cooperative arrangement. Safety should always be the primary concern of all who participate in this immensely rewarding work.

It is hoped that these guidelines will serve the common goal of safest care possible for every child.

APPENDIX A – Evaluation Form

Evaluator Name: _____

Telephone: _____ Email: _____

Site Visited: _____ _____
(City) (Province)

_____
(Country)

Date of Visit: _____

The following documents <u>may</u> be necessary:

1. **Invitation letter from the local plastic surgeon and/or plastic surgeon society.**
2. **Invitation letter from the hospital director.**
3. **Invitation from the Ministry of Health (Regional and/or National).**

PHYSICIANS:

Host Surgeon: _____ Specialty: _____

Telephone: _____ Fax: _____

Email: _____ Address: _____

English skill level: _____

Surgeon(s) who will work with us:

_____

Specialty: _____ Telephone: _____

Fax: _____ Email: _____

Address: _____

English skill level: _____

Physician who will be doing patient follow up: _____

Specialty: _____ Telephone: _____

Fax: _____ Email: _____

Address: _____

English skill level: _____

Anesthesiologist(s) who will be working with us: _____

Telephone: _____ Fax: _____

Email: _____ English skill level: _____

Pediatrician(s) who will be working with us: _____

Telephone: _____ Fax: _____

Email: _____ English skill level: _____

HOSPITAL INFORMATION:

Hospital Name: _____

Address: _____

Public or Private: _____ University Affiliation: _____

Treat Adults: _____ Treat children (age limits): _____

Hospital administrator or contact: _____

Telephone: _____ Fax: _____

Email: _____

Would patients receive free hospitalization: ☐ Yes ☐ No

If not, elaborate: _____

Services needed (include numbers if possible):

Cleft Lip: _____ Cleft Palate: _____

Burns: _____ Hand Surgery: _____

Other: _____

How are patients recruited: _____

Are most patients local or from elsewhere: _____

Can patients be admitted the night before surgery: _____

Local accommodations for those from far away: _____

What is the literacy of families (re: post-op instructions): _____

Do other groups come to this area to provide these services: ☐ Yes ☐ No

Who: _____ When: _____

Where: _____

Other hospitals in area and type (Pediatric): ☐ Yes ☐ No _____

Do these hospitals do cleft/burn work: ☐ Yes ☐ No At no charge: ☐ Yes ☐ No

LOCAL CIRCUMSTANCES:

Who will coordinate local support: _____

Title: _____ Telephone: _____

Fax: _____ Email: _____

Important local government officials: _____

Other community support (e.g. clubs): _____

Will help with the following be provided:

Visas: _____ Customs: _____

Transportation from hotel to hospital (how much: _____

Local translators for whole trip (2-3): _____

Will we have to pay them (how much): ☐ Yes ☐ No _____

Do local people speak a language different from the national language (if so what): ☐ Yes ☐ No

_____

Are translators available for this language: ☐ Yes ☐ No

What time of year is best to come and why: _____

Are there national holidays to be avoided: _____

Airlines that fly to this site: _____

Hotel Name: _____ Telephone: _____

Fax: _____ Email: _____

Price per double: _____ Exchange rate today: _____

Hot water: _____ Reasonable beds: _____

Reasonable toilets: _____ A/C or Heat: _____

Distance from hospital: _____

Safe to walk from hotel to hospital at night: ☐ Yes ☐ No

If needed, is transportation available at night: ☐ Yes ☐ No

Hotel contact name: _____

Telephone: Fax: _____

Email: _____

Are there adequate restaurants locally: ☐ Yes ☐ No

Is the city physically safe for foreigners: ☐ Yes ☐ No

Are there local sights for R&R: ☐ Yes ☐ No

General local assessment: _____

HOSPITAL FACILITIES:

# of hospital beds: _____ Is the clinic area adequate: ☐ Yes ☐ No

# of rooms: _____ X-ray available: ☐ Yes ☐ No

Laboratory available: ☐ Yes ☐ No HIV Testing: ☐ Yes ☐ No

Blood T&C available: ☐ Yes ☐ No HEP B Testing: ☐ Yes ☐ No

Hospital ward size: _____ Pediatric Ward: _____

Distance from OR/PACU: _____

All patients in one ward: ☐ Yes ☐ No If not, how many: _____

Is there a separate pediatric ward: ☐ Yes ☐ No

Is there transport provided from the ward to the OR: ☐ Yes ☐ No

Are nurses on duty 24 hours: ☐ Yes ☐ No How many: _____

What is the approximate nurse/patient ration (esp. at night): _____

Is there an M.D. in the hospital at night: ☐ Yes ☐ No Pediatrician: ☐ Yes ☐ No

Does the hospital have an ICU: ☐ Yes ☐ No M.D there: ☐ Yes ☐ No Pediatrician: ☐ Yes ☐ No

Are the following nurse assessments available:

Vital signs ☐ Yes ☐ No Wound: ☐ Yes ☐ No

Pain: ☐ Yes ☐ No LOC: ☐ Yes ☐ No

Respiratory Status: ☐ Yes ☐ No Neurovascular changes: ☐ Yes ☐ No

Are the following nurse interventions available:

Monitor IV: ☐ Yes ☐ No Start IV: ☐ Yes ☐ No

Change IV: ☐ Yes ☐ No

Administer pain meds:

Oral: ☐ Yes ☐ No IV: ☐ Yes ☐ No IM: ☐ Yes ☐ No

Administer antibiotics: ☐ Yes ☐ No Suctioning: ☐ Yes ☐ No

Oxygen: ☐ Yes ☐ No Air positioning: ☐ Yes ☐ No

PO Fluids: ☐ Yes ☐ No I&O ☐ Yes ☐ No

Is there oxygen available on the ward: ☐ Yes ☐ No

Are there telephones on the ward: ☐ Yes ☐ No

Will there be an English speaking nurse or doctor: ☐ Yes ☐ No

Will they be able to contact the team in the event of an emergency: ☐ Yes ☐ No

Can cell phones be rented: ☐ Yes ☐ No

Name of head ward nurse: _____ Contact Info: _____

Can supplies by purchased locally:

IV Fluids: ☐ Yes ☐ No Sutures: ☐ Yes ☐ No

Narcotics (which ones): ☐ Yes ☐ No _____

General hospital assessment: _____

OPERATING ROOM

Head Nurse or OR Director: _____

Telephone: _____ Fax: _____

Email: _____

# of ORs available: _____

Will scrub techs be provided for each table: ☐ Yes ☐ No

Are "flash" autoclaves available: ☐ Yes ☐ No How long is the cycle: _____

Can sterilization be done for us overnight: ☐ Yes ☐ No OR ventilation (A/C or heat): ☐ Yes ☐ No

Separate equipment room that can be locked: ☐ Yes ☐ No

Defibrillator in OR:
Electrical Power: ☐ 120v ☐ 220v

If 220v to 250v, are step-down transformers available: ☐ Yes ☐ No

Is there a generator for power outages: ☐ Yes ☐ No Can we work on Saturday: ☐ Yes ☐ No

Can lunch be provided for the team each day (cost): ☐ Yes ☐ No If so, cost: _____

OR#: _____ Size (S/M/L): _____

Table type: _____ OR light type: _____

Wall oxygen: _____ Wall nitrous: _____

Wall suction: _____

Anesthesia Equipment: _____ Anesthesia machine: _____

Vaporizer: _____ Exhaust system: _____

How many power outlets: _____ Will two tables fit in room: ☐ Yes ☐ No

Other: _____

OR#: _____ Size (S/M/L): _____

Table type: _____ OR light type: _____

Wall oxygen: _____ Wall nitrous: _____

Wall suction: _____

Anesthesia Equipment: _____ Anesthesia machine: _____

Vaporizer: _____ Exhaust system: _____

How many power outlets: _____ Will two tables fit in room: ☐ Yes ☐ No

Other: _____

OR#: _____ Size (S/M/L): _____

Table type: _____ OR light type: _____

Wall oxygen: _____ Wall nitrous: _____

Wall suction: _____

Anesthesia Equipment: _____ Anesthesia machine: _____

Vaporizer: _____ Exhaust system: _____

How many power outlets: _____ Will two tables fit in room: ☐ Yes ☐ No

Other: _____

General assessment of OR: _____

PACU:

Types of beds (e.g., adult w/rails, cribs): _____

# of beds: _____ Proximity to OR: _____

Proximity to Ward: _____ Wall oxygen: _____

Wall suction: _____

What type of lighting is in the PACU (adequate to start IV): _____

PHOTOGRAPH FOR THE REPORT: ELECTRICAL OUTLETS, ANESTHESIA MACHINES, AND ANYTHING ELSE DEEMED UNUSUAL OR PERTINENT

EDUCATION:

Local institutions:

Medical School: _____ Nursing School: _____

Contacts for both/either: _____

Telephone: _____ Fax: _____

Email: _____

Are there residents (number):

General surgery: _____ Plastic Surgery: _____

Orthopedic Surgery: _____ Anesthesia: _____

Pediatrics: _____ Nursing Students: _____

Are lectures desired (with topics):

Plastic Surgery: _____ Anesthesia: _____

Nursing: _____ Other: _____

Facilities & equipment:

Lecture room (size): _____ Slide Projector: _____

Power Point: _____ Overhead : _____

Screen: _____ Blackboard: _____

Contacts for education:

Name: _____ Speak English: ☐Yes ☐No

Specialty: _____ Email: _____

Telephone: _____ Fax: _____

Name: _____ Speak English: ☐Yes ☐No

Specialty: _____ Email: _____

Telephone: _____ Fax: _____

Name: _____ Speak English: ☐Yes ☐No

Specialty: _____ Email: _____

Telephone: _____ Fax: _____

Name: _____ Speak English: ☐Yes ☐No

Specialty: _____ Email: _____

Telephone: _____ Fax: _____

<u>OVERALL</u> KEY CONTACTS (from above or others):

Name: _____ Title: _____

Speak English: ☐Yes ☐No Email: _____

Telephone: _____ Fax: _____

Name: _____ Title: _____

Speak English: ☐Yes ☐No Email: _____

Telephone: _____ Fax: _____

Name: _____ Title: _____

Speak English: ☐ Yes ☐ No Email: _____

Telephone: _____ Fax: _____

Name: _____ Title: _____

Speak English: ☐ Yes ☐ No Email: _____

Telephone: _____ Fax: _____

THE FINAL REPORT SHOULD BE IN A NARRATIVE FORM WITH PERTINENT PHOTOS INCORPORATED INTO THE BODY OF THE TEXT.

ATTACH OR COPY ALL PERTINENT BUSINESS CARDS HERE:

APPENDIX B: AMERICAN SOCIETY OF ANESTHESIOLOGISTS PHYSICAL STATUS

PS-1 A normal healthy patient

PS-2 A patient with mild systemic disease

PS-3 A patient with severe systemic disease

PS-4 A patient with severe systemic disease that is a constant threat to life

PS-5 A moribund patient who is not expected to survive without the operation

PS-6 A declared brain-dead patient whose organs are being removed for donor purposes