Vanderbilt Anesthesiology Global Fellowship Curriculum

A. Clinical Education: The clinical program serves as the cornerstone of the fellowship training in global anesthesia. In order to achieve the necessary level of expertise, fellows should be prepared to do the following:

1. Patient Assessment in Austere Setting
   a. Basic Physical Examine Skills
   b. Preoperative Evaluation in low tech environments
2. Ketamine Analgesia and Anesthesia
3. Use of a Pre-cordial Stethoscope
4. General Anesthesia
5. Pain Management for Austere Settings
6. Basic Regional Techniques:
   a. Superficial cervical plexus block
   b. Axillary brachial plexus block
   c. Intravenous regional anesthesia (Bier block)
   d. Wrist block
   e. Digital nerve block
   f. Intercostobrachial nerve block
   g. Saphenous nerve block
   h. Ankle block
   i. Spinal anesthesia
   j. Lumbar epidural anesthesia
   k. Combined spinal-epidural anesthesia
   l. Femoral nerve block
   m. Mandibular nerve block
7. Simulation
   a. Master simulation scenarios which illustrate clinical challenges in low income settings
   b. Create additional scenarios for the education of residents also preparing for overseas rotations
8. Fellows will be required to complete an austere anesthesia course of their choosing and this will also serve as their annual CME.
9. Fellows will complete daily case logs when overseas to track their clinical experience, as well as their complications and outcomes. These logs should be reviewed regularly with the appropriate faculty advisor and may be part of the Global Surgical Database. Logs will include:
   a. Procedure performed
   b. Whether the Fellow was supervising or performing the procedure
   c. Technique
   d. Supervising attending
   e. Pain Management
   f. Any rescue procedures
   g. Complications and 24 hour outcomes
10. Fellows must be able to show competency in the following areas:
    a. demonstrate the ability to perform a complete physical examination and an assessment of perioperative morbidities without access to technology or testing
    b. demonstrate effective use of Ketamine as analgesia and anesthesia in patients and/or simulation
    c. demonstrates the ability to use draw-over vaporizers when needed in patients and/or simulation
    d. demonstrates the ability to safely deliver a general anesthetic without oxygen in simulation
    e. demonstrate effective decision making in low income settings
    f. demonstrate the use of triage principles for resource restricted settings
    g. demonstrate ability to provide appropriate post-operative pain management in remote settings with few available medications
    h. demonstrate effective management of regional anesthesia in the austere environment
    i. demonstrates the ability to deconstruct, reconstruct and repair basic anesthesia equipment in simulation
    j. demonstrate cross-cultural sensitivity and the ability to productively interact with international colleagues and patients
B. Didactic Educational Program: A didactic and educational program specifically dedicated to the safe practice of anesthesia in austere and remote settings.

1. By completion of the fellowship program, the fellow is expected to have an extensive knowledge base consisting of the following:
   a. The global burden of surgical disease and the global anesthesia crisis
   b. understands the specific differences in the practice of anesthesia in austere and remote settings without compromising patient safety
   c. understands principles of, benefits of, and options for, regional anesthetic procedures and how to safely administer them in austere settings
   d. understands complications of regional anesthetic techniques
   e. understands the benefits and difficulties of the administration of Ketamine
   f. understands principles of regional anesthesia as they apply to acute pain management
   g. develops familiarity with the growing body of international literature on global anesthesia and surgical practices

2. Didactic teaching will occur during simulation settings, during lectures/conferences, Vanderbilt International Journal Club, and Grand Round Lectures

3. Case discussions of complications and difficult cases will occur during monthly

4. Fellows will learn teaching techniques by educating residents in the OR and from their leadership role in the simulation center during the academic year

5. Reading material will be provided or made available including articles, textbooks, DVDs, and on-line tutorials.

6. Attendance at an Austere Anesthesia Course will provide practice with skills described in the competency section that cannot be otherwise practiced at Vanderbilt

C. Consultant Skills:

1. Communication Skills: Fellows should possess communication skills sufficient to solicit and impart information in multicultural situations. The fellow must be able to clearly delineate options available to the patient regarding anesthesia as well as the risks and benefits in a manner that is understandable to the patient. In addition, the fellow will be expected to give at least one Grand Round Lecture on a Global Anesthesia topic.

2. Collaboration Skills: Fellows must be able to work in a team environment, communicating and cooperating with surgeons, nurses, pharmacists, physical therapists, and all members of the perioperative team.

3. By the end of the fellowship, successful graduates will be able to:
   a. appreciate the roles of other members of the team
   b. communicate clearly in a collegial manner that facilitates the achievement of care goals
   c. help other members of the team to enhance the sharing of important information
   d. formulate care plans that utilize the multidisciplinary team skills, often in challenging medical and logistic settings.

D. Minimal Impact on Resident Education:

1. Fellowship training should have minimal adverse effect on resident education currently in place. This fellowship will have little impact on resident education, as during the common clinical times, the fellow will take on a teaching role for the residents. Time overseas and conducting research will further decrease the impact on resident education.

2. The Fellowship Program Director will confer with the Residency Program Director on a regular basis to ensure there is outstanding training for both residents and fellows.