

## Bringing Anesthesia Expertise to International Volunteer Programs

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**Learner audience:** CA-3 residents

**Background:** Many developing countries lack adequate manpower and expertise to provide basic surgical services and, as the result, there are increasing numbers of American surgical teams traveling abroad to assist with such services. Anesthesiology expertise is critical to the safety and success of such missions.

**Needs Assessment:** There is no established formal education available to prepare anesthesiologists to take part in international volunteer surgical efforts in spite of growing global demand.

**Curriculum Design** The primary goal is to achieve a predictable and reproducible experience with an emphasis on high standards of care in a safe environment. A liaison was formed with a local, Pittsburgh based surgical volunteer organization whose resources included: experience, a Director willing to work with our organization, a good reputation, 5 trips annually and a local supply warehouse. A curriculum was developed emphasizing personal health and safety, advance planning, country specific issues relating to general health of the population, health care availability and resources, cultural nuances, unique co-morbid conditions, strict adherence to ASA guidelines and the importance of team dynamics. (table 1). A timeline in which to present the information was developed. (table 2). All supervising faculty have experience in both pediatric anesthesia and international missions. Resident selection is based not only on general anesthesia knowledge and clinical performance but also on disposition, attitude and flexibility. A DVD containing resource materials including websites and pertinent literature is created and available for each trip. This rotation is ACGME-RRC approved for credit and all resident funding is provided by the UPMC Department of Anesthesiology. No trips are undertaken to countries when US State Department advisories against such travel are in effect.

**Outcome:** Implementation of an ACGME-RRC approved rotation that integrates didactic teaching and supervised clinical experience to prepare residents to provide anesthesia expertise as members of international surgical teams.

### Table 1. Curriculum:

1. Personal health and safety
2. Cultural Considerations
3. Site specific health issues
  - a. General health of population
  - b. Health Care System
4. Topics in Volunteerism
5. Pediatric Anesthetic Risk Data
6. Specific Surgical Problems
7. Trip Preparation
8. ASA Practice Guidelines

### Table 2. Timeline:

1. Initial clinical anesthesiology at a specialized pediatric hospital
  - a. Review and enhancement of pediatric anesthesia knowledge.
2. Ongoing meetings with faculty mentor for didactic sessions.
3. Prior to departure
  - a. Meet with local team members to discuss trip planning
  - b. Secure necessary equipment and supplies.
4. Clinical work at international site.
  - a. Evaluating potential surgical candidates,
  - b. Create and supply operating suite,
  - c. Perioperative and intraoperative clinical anesthesia care.