

## Resident Education on Medical Mission Trips

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### Introduction

Anesthesiologists from academic centers in the USA frequently travel to underdeveloped countries as integral parts of surgical mission trips<sup>1</sup>. We have been fortunate to be part of regular week-long surgical mission trips to Guatemala with a Houston based ecumenical group called Faith in Practice (FIP)<sup>2</sup>. We describe our experience in incorporating anesthesia residents as components of the anesthesia care team on these trips and the enormous personal and educational benefits thereof.

### Methods

The mission of FIP is to improve the physical, spiritual, and economic conditions of the poor in Guatemala through short-term surgical, medical and dental mission trips and health-related educational programs, principally at the Obras Sociales Hermano Pedro Hospital and Orphanage<sup>3</sup> in Antigua, Guatemala. In 2004, 722 surgeries were performed by a combination of 20 surgical and village teams.

Primary involvement for residents has been with orthopedic and general surgical teams although faculty has participated on pediatric ENT teams. Our anesthesia dept has supported this mission with time off and financial support for participants and we have selected willing CA-3 residents close to graduation who would either be staying on in the dept. as junior faculty, are current chief residents or otherwise senior residents in good standing. Such is the popularity of the program that residents are expressing interest 1-2 years before eligibility!

### Results

Five residents have had the privilege of joining trips over the last 4 years and have functioned as independent components of the anesthesia care team with anesthesiologists and nurse anesthetists. ORs are 'cozy' with ability to closely observe adjacent rooms and staffing allows a float anesthesiologist to assist in any of the 3-4 ORs as needed and cover PACU.

Equipment is a functional mix of machines and monitors (including all basic ASA mandated monitoring) which is rigorously checked on arrival and on a daily basis. A reasonable selection of all anesthetic agents, adjuvants and fluids is available (some of the labeling being in either Spanish or Italian!) as is basic airway equipment, including LMA's and kits for neuraxial anesthesia (an anesthesia preference of many of the local patients). Specific disposables and nerve stimulators to facilitate peripheral regional techniques for orthopedic procedures and anesthesia agents to supplement the on-site inventory are brought by the team.

### Discussion

Exposure to a completely new perioperative environment, a different patient population, esp. in terms of pharmacodynamic response, and the economic implications of appropriate management of meager resources and equipment (including safe reesterilization and re-use of certain items) has been an invaluable experience for senior residents. While the primary purpose of the trip is to provide anesthesia care, the educational benefits of having senior residents participate cannot be sufficiently emphasized.

Besides the tangible addition to diverse clinical experience, the profound impact on resident and faculty anesthesiologists alike serves as a reminder of the very essence of 'professionalism' and

'systems-based practice' as we subsequently return to apply these competencies to everyday practice in the comfort of our 'normal' environment.

### **References**

1. Anesthesiology 2001;95:1315-22.
2. <http://www.faithinpractice.org/index.php>. 3. <http://www.obrashermanopedro.org>.

### **Acknowledgements**

We are indebted to the volunteer staff of FIP and team colleagues (both physician and non-physician) for the opportunity to make a difference. We also thank Drs. Jeff Katz, Susan Luehr and Jim Arens for their tremendous support of this endeavor and the entire dept. faculty who have financially supported this mission.