



**Councilman-Gonzales LM, Clyne BB, Schultz JR, Owen MD. Initiating an obstetric anesthesia collaboration to reduce maternal morbidity and mortality in Republic of Georgia. *Anesthesiology* 2007; 106:A-222**

## **A-222.**

### **INITIATING AN OBSTETRIC ANESTHESIA COLLABORATION TO REDUCE MATERNAL MORBIDITY AND MORTALITY IN REPUBLIC OF GEORGIA**

**AUTHORS:** L. M. Councilman-Gonzales<sup>1</sup>, B. B. Clyne<sup>2</sup>, J. R. Schultz<sup>3</sup>, M. D. Owen<sup>4</sup>;

**AFFILIATION:** <sup>1</sup>Scott & White Memorial Hospital/ Texas A&M HSC College of Medicine, Temple, TX, <sup>2</sup>Southeast Anesthesiology Consultants, P.A., Charlotte, NC, <sup>3</sup>Duke University Medical Center, Durham, NC, <sup>4</sup>Wake Forest University School of Medicine, Winston-Salem, NC.

**Introduction:** Georgia, a country with 4.6 million inhabitants, is situated between Russia to the north, and Turkey, Armenia, and Azerbaijan in the south. Georgia gained independence from Russia in 1991. Between 1990 and 2002 the maternal mortality rate in Georgia increased by almost 80% (from 28 to 51 maternal deaths per 100,000 live births).<sup>1</sup> Twelve physicians representing four countries visited Georgia in September 2006 to acquire information and identify opportunities for collaboration to reduce maternal morbidity and mortality. The physicians represented the SOAP international outreach committee, Kybele (a non-profit medical organization), and the Obstetric Anaesthetists' Association.

**Methods:** The site visits were arranged to 13 hospitals in the cities of Tbilisi, Kutaisi, and Gori, noting staffing, facilities, equipment availability, and the conduct of anesthesia. Kybele obtained Ministry of Health approval to bring medications for technical demonstrations during the hospital visits. Additionally, team members brought medical supplies, textbooks, and teaching materials for donation to the host hospitals. One-day seminars were scheduled in Tbilisi and Kutaisi to discuss a myriad of obstetric anesthesia topics and to learn the degree of interest in future collaboration.

**Results:** The conferences were well-attended by anesthesiologists, obstetricians, and intensivists from around the country. Presentations were translated into Georgian to facilitate communication. Extensive teaching was accomplished and there were very active discussions with local physicians and health ministry staff regarding future collaborations and needs. During hospital observations, cultural and political barriers which impact maternal healthcare were identified. Regional anesthesia was used infrequently (except in one hospital, privatized, with a labor epidural rate of 60% and an epidural rate for C/S of 18% with spinals never utilized for C/S) because of patient fears and a lack of equipment and supplies. Lidocaine is the only local anesthetic available for regional anesthesia in Georgia; bupivacaine is not approved. Equipment was minimal; cesarean section monitoring often consisted only of a manual blood pressure cuff. The ventilators were 40-year-old Russian models. Left uterine displacement and rapid sequence induction with cricoid pressure were not utilized in any of the hospitals we observed. Team members were featured on Georgian television caring for a woman who was provided labor analgesia for a painless birth.

**Conclusion:** Health officials in Georgia have requested our help in obtaining approval for use of bupivacaine and ropivacaine. Future on-site training missions will focus on basic obstetric anesthesia education, including safe anesthesia for cesarean section, public awareness about regional anesthesia, and labor analgesia. Efforts will be undertaken to obtain equipment and supplies for donation during future visits.

#### **Reference:**

1. World Health Organization: Highlights on health in Georgia 2005: <http://www.euro.who.int/highlights>

**Acknowledgement:** Kybele