

## **Prevention of obstetric anesthesia related maternal mortality**

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### **PURPOSE:**

Due to clinical challenges and medico-legal liability obstetric anesthesia is considered to be a high-risk sub-specialty of anesthesiology. In the United States of America obstetric anesthesia-related complications are the sixth leading cause of pregnancy-related maternal mortality. The vast majority of obstetric anesthesia-related maternal deaths occur under general anesthesia (1-3).

The purpose of this lecture is to focus on prevention of obstetric anesthesia-related maternal morbidity and mortality and to highlight some aspects of medico-legal issues in obstetrics and obstetric anesthesia.

### **RECENT FINDINGS:**

Davies et al. conducted an analysis of data from the Anesthesia Closed Claims Project database, which showed an increase in the proportion of anesthesia claims for maternal death and brain damage between the 1990s and 2000 and later, primarily due to hemorrhage (4). The authors concluded that (1) use of massive transfusion protocols and clinical drills have been shown to improve outcomes from hemorrhage, (2) good communication and teamwork was critical for reducing obstetric liability. The authors also cautioned that obstetric practice carries a high risk of medical liability and involves both obstetricians and anesthesiologists (4).

Lee et al. analyzed the American Society of Anesthesiologists Closed Claims Project database to identify specific patterns of injury and legal liability associated with regional anesthesia (5). The authors concluded that obstetric claims were predominately associated with minor injuries. Neuraxial cardiac arrest and neuraxial hematomas associated with coagulopathy remain sources of high-severity injury.

Samarkandi analyzed the medical malpractice litigation that was referred to the National Medico-Legal Committee in order to evaluate the magnitude and underlying factors of the problem in Saudi Arabia (6). The author concluded that adherence to standards of medical practice is by far the best approach to avoid or reduce the incidence of litigation.

The American Society of Anesthesiologists Task Force on Obstetric Anesthesia and the Society for Obstetric Anesthesia and Perinatology published (Anesthesiology; V 124 No 2 February 2016) an updated Practice Guidelines for Obstetric Anesthesia (7). The purpose of these guidelines is (1) to enhance the quality of anesthetic care for obstetric patients, (2) to improve obstetric patients' safety, (3) to reduce the incidence and severity of anesthesia-related complications and (4) to increase patients' satisfaction.

Litigation related to obstetrics and obstetric anesthesia is on increase worldwide. Familiarity with the practice guidelines may offer physicians some degree of protection

from potential liability (8, 9). In 2013 the American Society of Anesthesiologists Task Force on Management of the Difficult Airway published Practice guidelines for management of the difficult airway: an updated report by the American Society of Anesthesiologists Task Force on Management of the Difficult Airway (10).

#### SUMMARY:

Obstetrics and obstetric anesthesia are among the most highly litigated medical specialties in the United States of America. All physicians caring for pregnant women should familiarize themselves with areas of potential risk and avoid medico-legal pitfalls. Legal implications of clinical practice guidelines are still uncertain and not well defined. Despite extensive use of the term 'standard of care', there is no such medical definition, and trying to define 'standard of care' is a quandary with more legal than medical implications.

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