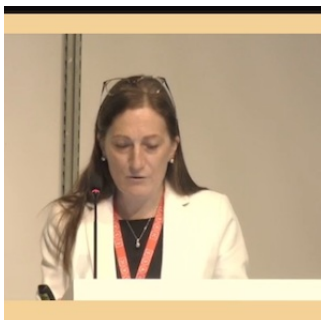


#EA22: Preventing Maternal Deaths



In a very relevant session at Euraneanesthesia 2022, Dr Nuala Lucas, an Obstetric Anaesthesia Expert from Northwick Park Hospital, London, U.K., presented key messages for anaesthesia practice from U.K.'s Maternal Mortality Reports. These reports are produced annually to provide information about the causes of maternal deaths and promote learning and reduce preventable mortality. The U.K. Maternal Mortality Enquiry programme is led by Professor Marian Knight at the National Perinatal Epidemiology Unit at the University of Oxford.

From 2017 to 2019, out of 2,173,810 women giving birth in the U.K., 191 died during or up to six weeks after the end of pregnancy from causes associated with their pregnancy. This translates into 8.8 women per 100,000 dying during pregnancy or up to six weeks after childbirth or the end of pregnancy. This rate is similar to that seen a decade earlier.

Data regarding ethnicity demonstrates significant disparity within different communities. Maternal mortality rate was 7 per 100,000 for white women, 12 per 100,000 for Asian women, 15 per 100,000 for mixed race women and 32 per 100,000 for Black women - more than four times the rate of white women. The most deprived 20% of pregnant women, with a maternal mortality rate of 14, were twice as likely to die as those in the most affluent 20% (maternal mortality rate 7). These figures are an important reminder for urgent action to reduce inequalities in maternity care based on ethnicity and socioeconomic status. This is essential to reduce maternal deaths.

Heart disease is the leading cause of death among women during or just after pregnancy, followed by epilepsy and stroke. Sepsis and thrombosis, and thromboembolism are also important causes of maternal death during or up to six weeks after the end of pregnancy. Maternal death from preeclampsia and eclampsia continues to be low but is still higher than the rate recorded in 2012-14. Cancer is the most frequent cause of death for women between six weeks and a year after the end of pregnancy. Maternal suicide is the leading direct cause of death over the first year after pregnancy.

Dr Lucas points out that events such as cancer are beyond the control of maternal anaesthesia teams but so much can still be done to address the preventable causes of maternal mortality. "Even one preventable maternal death is unacceptable," she says.

Pregnant women should be assessed for the risk of blood clots and should be prescribed anti-clotting medication if needed. In addition, there should be an increased focus on primary and secondary prevention, particularly risk recognition and stratification, especially for women at a higher risk of complications.

There will be complications that cannot be prevented, explains Dr Lucas, such as obstetric haemorrhage that can occur even in women without risk factors. However, outcomes can still be optimised in these situations if the institution and the maternity units are highly prepared and adequate staff and resources are available.

Maternal early warning scores can assist in detecting acute deterioration because there are times when the mother and baby seem fine, but there can be a sudden turn of events. A new national maternal early warning score system is also anticipated in the U.K. this year.

It is important to address maternal mortality due to the causes of existing diseases aggravated by pregnancy and to focus on multidisciplinary planning and care for women with existing diseases. Obstetric anaesthesia can play an important role in maternal care beyond the provision of anaesthesia and analgesia. Anaesthesia services are often underresourced and underrepresented in maternity care. This needs to change and is something that requires action from policymakers and service planners.



Organisational

- Delivery of services
 - delivery of known high-risk cases in isolated units
 - poor access to blood banks, ICU, radiology etc
- Staffing / resources
 - delayed transfer to theatre / ICU / specialised unit
 - clinical handovers
 - inadequate recovery facilities



Organisational

- Chains of communication / responsibility
 - poor referral procedures
 - poor integrated care for high-risk cases
 - poor communication between & within teams
 - lack of urgency
 - lack of involvement of senior staff



Clinical

- Recognition of acute deterioration
- Recovery facilities
- Supine hypotension
- Hypotension during spinal anaesthesia
- Airway management
- Planning care of women with complex needs
- Team working, communication and escalation of care



Human factors

- *'...encompass a wide range of dynamics, including interfaces between humans, equipment, and the workplace, interactions between team members and also individual behaviours.'*
- Situational awareness
- Crisis decision making
- Handovers

Source: [Euroanaesthesia Congress 2022](#)

Image Credit: Dr Nuala Lucas' presentation @EA22

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