

And now 2020...

Here in the northern hemisphere the days of December are darkening, heralding the end of 2019. Time, perhaps, to reflect on the past year, and look forward to the future. One positive thought is the progress that is being made, year on year, in reducing child and maternal mortality. Since 1990, deaths of children under 15 years has more than halved - from 14.2 million deaths to 6.2 million in 2018. From 2000 to 2017, the maternal mortality ratio declined by 38% (WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division (2019) Maternal mortality: Levels and trends 2000 to 2017; UNICEF, WHO, World Bank, UN-DESA (2019) Population Division Levels and trends in child mortality report 2019: Estimates developed by the UN Inter-agency Group for Child Mortality Estimation)

Of course this is still far too many. The Each of the 2.5 million - mostly preventable - annual newborn deaths are an individual tragedy, but also a huge loss of human talent; think that any of those lost children could change the world for the better. It is thought that a similar number of stillbirths occurs, and these often do not even figure in statistical reports. In addition there were about 295,000 maternal deaths; while this was 35% lower than in 2000 (when there 451,000), and while the global maternal mortality ratio (MMR) has gone to 211 to 342 per 100,000, the combined numbers mean that a pregnant woman or newborn dies somewhere in the world every 11 seconds. This terrible burden is concentrated in the poorest countries: maternal mortality in sub-Saharan Africa is 50 times higher compared to high-income countries, while their babies are 10 times more likely to die in their first month of life.

As a “human family” (apologies to Maya Angelou) we have set ourselves ambitious targets, through the United Nations Sustainable Development Goals (SDGs). One of these is to reduce the global maternal mortality ratio to less than 70 per 100 000 live births by 2030. At the current pace of progress we will fall short of this target by more than 1 million lives. The SDG target (3.2) for reducing neonatal mortality is 12 per 1000 live births; and for under-5 mortality 25 per 1000 live births. Though 121 countries have already achieved this, 53 countries will need to accelerate progress to reach the SDG target on child survival by 2030.

One of the most common causes for maternal death globally is severe bleeding after childbirth. As estimated blood loss is notoriously unreliable, it is actually quite difficult to estimate the incidence of major haemorrhage. Most of us obstetricians will - at some point - have used some kind of balloon device in atonic postpartum haemorrhage (PPH) as an adjunct to uterotonics to achieve control of bleeding. As a trainee my preference was a Sengstaken-Blakemore Tube: originally designed for the management of bleeding oesophageal varices this could always be found in the “gastro” ward which was right next door. Since that time, lower cost balloons, designed specifically for obstetric haemorrhage, have been designed; cohort studies have suggested these are very effective in controlling bleeding when medical management fails (Doumouchtsis et al. *Obstet Gynecol Surv* 2007; Georgiou. *BJOG* 2009). In low income settings the condom-catheter is the cheapest option, and in this issue Anger et al. report a stepped-wedge cluster randomised trial of condom balloon tamponade. The results are counter-intuitive: not only did the introduction of condom-catheter tamponade in these settings not improve maternal outcomes, it also increased the rate of PPH-related surgery and death. So should we abandon this procedure due to lack of effect? The thoughtful mini-commentary by Andrew Weeks tries to put this finding into context; look for reasons that could explain these findings; and discusses the dilemma for those of us who use balloons in practice.

In another relevant study, Thurn et al cross-linked births over 20 years in Stockholm, Sweden, to the transfusion database. Massive blood transfusion - defined as the transfusion of more than 10 units – was rare in this setting at 5.3 per 10,000 births. The authors usefully separated those risk factors that were present beforehand (abnormal placentation, preeclampsia, placental abruption and previous cesarean birth) from those that occurred at time of birth (uterine rupture, atonic uterus, and cesarean delivery). Perhaps these findings are not surprising, but the ability to provide accurate estimates for the incidence and risk factors is extremely relevant; and the rising incidence - this rose by 30% between the first and second 10-year period of the study - an important observation that warrants further investigation. On page XX Mark Ranasinghe reflects on his experience as a medical student on how effective simulation training in obstetrics helped to provide more effective emergency care during a haemorrhage.

As we see day to day, clinical opinions vary widely - between countries, neighbouring hospitals or even clinicians working in the same unit. While we all like to think that our medical opinion is formed only by hard evidence, we often use intuition, experience or perceived logic. This is illustrated by an exhaustive review of studies reporting on the correlation between the alert line on the partograph, and the occurrence of adverse birth outcomes by Bonet et al. The authors found very wide variation in the percentage of women crossing the alert line and none of the studies really suggested that = as a diagnostic test – the action line was accurate enough to make it a useful tool for management. In other words, the review “did not support the use of the cervical dilatation over time (at a threshold of 1 cm/h during active first stage) to identify women at risk of adverse birth outcomes”. Discussing and debating management options is one good way to see both sides of the story, and the accompanying minicommentaries by Donald Dudley and Michael Robson in response to these important findings make interesting reading. These add to our “for” and “against” pieces, of which we have two this week: one asks whether we should offer induction of labour to all women at term; another whether pre-implantation genetic screening should be used in all IVF cycles when a woman is over the age of 35. Reading both sides of the story will make you aware of the latest evidence and how interpretation of evidence still plays a role in care.

So can all these papers help to further improve maternal and newborn wellbeing? I hope so... in response to the two WHO reports, the Director General, Dr Tedros Adhanom Ghebreyesus, said: “In countries that provide everyone with safe, affordable, high-quality health services, women and babies survive and thrive. This is the power of universal health coverage.” Safe and high quality care must rely on evidence, and BJOG will continue to serve women and their carers worldwide in 2020.