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Room for improvement in maternity care

PERSPECTIVES

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Adverse events still occur in maternity care, and many could be avoided. We must be better at learning from our own mistakes.

Despite the high standard of maternity care in Norway, adverse events with serious outcomes for the mother and/or child sometimes occur. Reports of serious incidents in connection with childbirth regularly appear in the media, often in relation to fatalities or injuries as a result of inadequate health care or medical errors. These stories leave a lasting impression.

It is not only the family in question that suffers; the obstetricians and midwives involved are also affected. For some, the psychological strain can be so great that they do not want to continue working in maternity care (1). About half of such adverse events could have been prevented if the birth had been handled differently (2–4). What can go wrong during childbirth, and why do the same types of events seem to happen repeatedly?

Major changes

Maternity care in Norway has changed dramatically in the last 100 years. In 1920, there were three maternity units in Norway. Most women gave birth at home, with only the poorest giving birth in hospitals. By around 1970, there were almost 200 maternity units. The current figure is 45, and more than 55 000 babies are born every year (5).

The birthing population has also changed. The average age has risen, and more women are successfully conceiving despite complicating factors such as obesity and chronic disease. The number of pregnant women with an immigrant background has also risen. This can entail communication problems and make it difficult to obtain important information about the woman's health and previous births.

In addition, the number of induced births has doubled in the last 15 years. In 2020, labour was induced in almost one in every three births (5). Nowadays, it is not only women with high-risk pregnancies who are induced, but also healthy expectant mothers with no complications or who are not overdue. This

increase has no clear clinical justification. Induced labours are resource-intensive, because close monitoring is required by both a midwife and an obstetrician.

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The changes have led to much higher workloads at several maternity wards. Maternity staff have expressed that the situation is unsustainable and that something needs to be done, but hospital management and politicians have yet to act. Many midwives are leaving or threatening to leave the profession. They fear that staff shortages will prevent women in labour from receiving proper care.

Where is maternity care failing?

Norway is one of the safest countries in the world to give birth in. Perinatal mortality is low, with only 3.8 deaths per 1000 births (5). Expectations are therefore high as regards safe and good-quality maternity care. However, when assessing the quality of maternity care, we cannot solely rely on official statistics such as perinatal mortality, maternal deaths, number of perineal lacerations or other quality indicators (6). In order to form an overall picture, adverse events must also be recorded and analysed internally in the ward to ascertain whether routines and practices should be changed.

It is important to identify the underlying causes of substandard care. Feedback must therefore be sought from patients and their families after an adverse event has occurred. In a hectic working day, quality assurance is often downgraded, which is unfortunate because it prevents lessons being learned from adverse events.

In 2004, a nationwide inspection was carried out in Norwegian maternity units. The results showed that routines and practices for dealing with acute incidents, calling a doctor, accountability, documentation and training of obstetricians and midwives had scope for improvement (7). Improvements have been made since this inspection, but experiences from the inspection and some of the cases in the Norwegian System of Patient Injury Compensation show that there are still shortcomings in maternity care. It is particularly concerning that the same errors appear to recur over time (2, 3, 8, 9).

During childbirth, acute events are not uncommon. Most are dealt with quickly and in accordance with good practice. However, accidental injuries, complications that require further treatment, prolonged hospital stays or, in rare cases, death can also occur. International studies show that adverse events occur in one in every ten births (10). Adverse events may be the result of medical errors, but can also be due to other reasons. In 2016, the Norwegian Board of Health Supervision investigated how three categories of acute events with adverse outcomes were dealt with in Norwegian maternity units. Substandard maternity care was found in six out of ten events, and this was shown to be directly associated with the serious outcome (8). We discuss below some areas where errors are often repeated.

«A breach in the standard of maternity care was found in six out of ten events, and this was shown to be directly associated with the serious outcome»

It is important to monitor the fetus during labour. A fetal stethoscope or handheld Doppler is used to monitor low-risk parous women, while electronic fetal monitoring (cardiotocography (CTG) and ST analysis of the fetal ECG (STAN) are used for high-risk parous women (11). Several studies, both Norwegian and international, have shown that the recommendation to use CTG monitoring in high-risk cases is not always followed. In addition, CTG findings can be misinterpreted, which has been the case in many of the events with adverse outcomes (8, 9).

In order to prevent injury in an acute event, the timing of the delivery is of the essence. Delays in diagnosis and delivery often lead to adverse outcomes. Misinterpretation of CTG over several hours and failure to examine the patient when serious complications arise, such as placental abruption or uterine rupture, are some examples. Precious time may also be lost after the decision has been made to perform a surgical delivery, e.g. delays in getting the patient to the operating theatre, lack of information/communication about the degree of urgency, and delays due to the anaesthesia method chosen. Delivery can also be delayed because an attempted forceps or vacuum extraction has exceeded the recommended maximum of 15–20 minutes (8).

A large proportion of parous women are given oxytocin to increase uterine activity, which in some cases leads to uterine hyperstimulation (when contractions are too frequent). This can reduce the placental blood flow and thus also the oxygen supply to the baby. Obstetricians and midwives are now

more aware of the risks with oxytocin, but it is still used uncritically, particularly so in relation to women who have previously had a caesarean section and have a high risk of uterine rupture (12).

> *«Obstetricians and midwives are now more aware of the risks with oxytocin, but it is still used uncritically»*

Postpartum haemorrhage is another serious complication that is relatively common. There are various ways to treat this, but medication to stimulate uterine contractions is extremely effective in stopping atonic bleeding. Reviews of such events show that medication is underused, and when it is used, the dosage is not in accordance with stipulated recommendations (8).

In order to provide good maternity care, the midwife and obstetrician must work together when necessary, likewise the doctor on duty and the doctor on call at home. The midwife may have sole responsibility for normal deliveries, but when complications occur, an obstetrician needs to be involved. A multitude of inspections have found that obstetricians and midwives do not always seek assistance when necessary. In such cases, they go beyond their scope of expertise, thereby increasing the risk of errors of judgement. This has proven to be the case in a number of adverse events in maternity care (3, 8).

Responsibility of the health institutions

Several inspections of maternity care have shown that maternity staff do not always have sufficient knowledge or skills to deal with common events, such as threatening birth asphyxia, shoulder dystocia or severe haemorrhage. Why is this? The health institutions are responsible for ensuring that all obstetricians and midwives have the required competence, and they must provide regular training and skills upgrading. The Norwegian Board of Health Supervision's surveys showed that almost half of the maternity units did not carry out practical training in accordance with national requirements (8, 13), thus increasing the likelihood of obstetricians and midwives lacking necessary skills. Practical training is particularly crucial in small maternity units, where complicated labours are rare.

> *«Almost half of the maternity units did not carry out practical training in accordance with national requirements»*

In the past, it was often the individual healthcare worker who was held responsible when an adverse event occurred. However, it is more appropriate to try to identify the underlying causes of errors, i.e. in the health institution's responsibility for facilitating a professional standard of health services (cf. section 2 - 2 of the Specialist Health Service Act). The Norwegian Board of Health Supervision has shown that serious outcomes in maternity care are often the result of institutional failures (2, 3), such as inadequate interaction practices, implementation of guidelines, training and skills upgrading, accountability and efforts to improve quality and patient safety. Learning from serious adverse events and changing clinical practice when necessary are key parts of quality assurance and patient safety work (14).

Quality assurance and patient safety work

The health and care services must work on quality improvement on an ongoing basis. This includes identifying shortcomings or areas that can be improved, cf. section 8 of the Regulation on management and quality improvement in the health and care services.

The fact that the same adverse events keep re-occurring makes it pertinent to question whether the maternity units' quality improvement efforts are sufficient. The Norwegian Board of Health Supervision investigated whether maternity units report serious adverse events in their internal quality assurance systems and whether relevant assessments were made of reported events. Unfortunately, it transpired that only 9 % of serious events were reported. Relevant assessments were performed for half of these (15). Nineteen per cent of events with a very serious adverse outcome were reported in the internal quality assurance system.

The quality assurance and patient safety work therefore needs to be improved. We must create a culture where quality assurance is prioritised. This requires transparency in relation to adverse events. Events that have been assessed by external bodies, the supervisory authorities or the Norwegian System of Patient Injury Compensation must be followed up and form the basis for further quality

assurance. Ultimately, it is executive management that is responsible for establishing quality assurance and patient safety work and ensuring that it functions as intended. It is our view that a stronger focus should be given to quality assurance. We must learn from events involving substandard care and establish the necessary barriers to preventing similar events in the future.

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