The Royal College of Pathologists
Pathology: the science behind the cure

National Medical Examiner's Good Practice Series No. 15

Maternal deaths

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About the National Medical Examiner's Good Practice Series

Medical examiners are senior doctors providing independent scrutiny of non-coronial deaths in England and Wales – a relatively recent development.

While there is extensive guidance available on a wide range of topics for NHS and public sector staff, the National Medical Examiner's Good Practice Series highlights how medical examiners and medical examiner officers can better meet the needs of local communities and work more effectively with colleagues and partners.

The Good Practice Series is a topical collection of focused summary documents, designed to be easily read and digested by busy frontline staff, with links to further reading, guidance and support.

Introduction

Maternal deaths

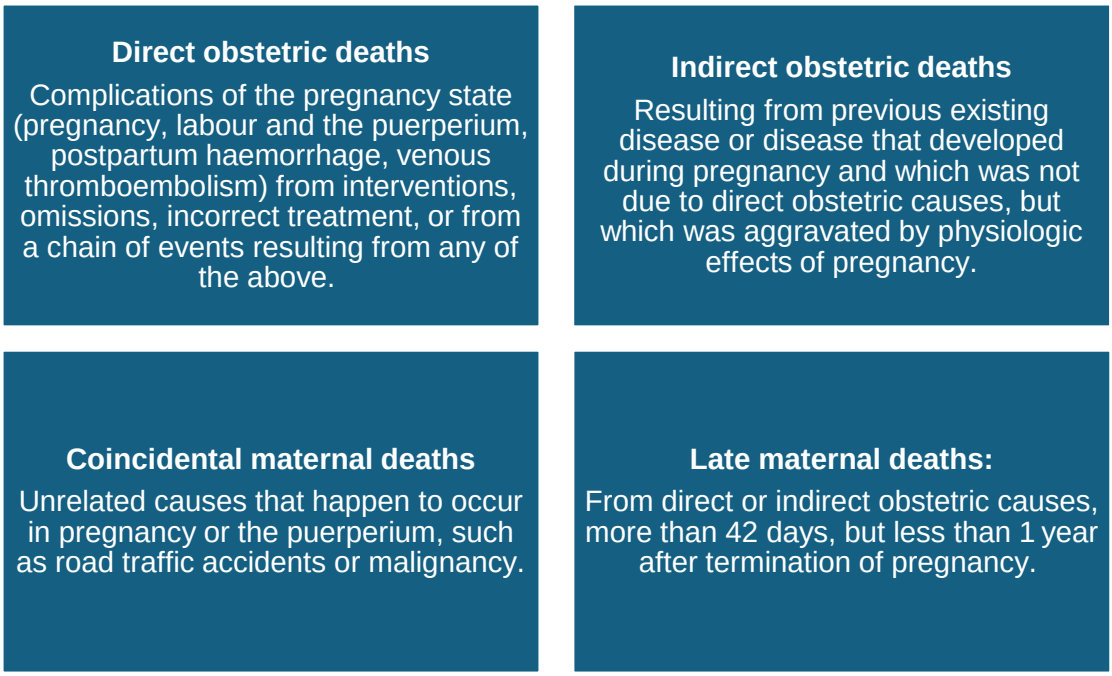
A maternal death is defined as the death of a woman during pregnancy and up to 42 days after the end of the pregnancy (up to 1 year for late maternal deaths). There does not have to be a birth; the end of pregnancy includes live or stillbirth, ectopic pregnancy, miscarriage, or termination of pregnancy). A maternal or obstetric cause of death may be related to (direct) or aggravated by (indirect) the pregnancy or its management, but all deaths within these time periods should be carefully considered for relevance whatever the cause.

There are 4 categories to consider: direct obstetric deaths, indirect obstetric deaths, coincidental maternal deaths and late maternal deaths (Figure 1).

Some maternal deaths do not occur in hospital or occur in early pregnancy. This can cause difficulties in assessing cases when the deceased is not known to the acute provider who is delivering maternity care. The provider will still have a duty to investigate if they were under their care.

Many of these deaths will be referred to the coroner.

Figure 1. Maternal death categories.



Recommendations for medical examiners

Medical examiners should:

- ensure they have tried to ascertain whether there has been a pregnancy in the last year for all deaths occurring within reproductive years; all the relevant records should be accessed for independent scrutiny
- ensure that the certifying medical practitioner completes the questions on the Medical Certificate of Cause of Death (MCCD) relating to pregnancy correctly for all deaths of adult women
- ensure that the appropriate person takes responsibility for reporting to MBRRACE-UK
- be sensitive when discussing with family and relatives who may be unaware of a concealed pregnancy
- recognise that, although all deaths are traumatic, a maternal death may have a particularly significant impact on bereaved people
- consider referring the case to the coroner (if it falls within the Notification of Death Regulations 2019).

Context and background

This good practice paper focuses on medical examiners' role in relation to maternal deaths.

Maternal deaths are fortunately a rare event, though of course each is a serious and tragic occurrence. A large proportion will be referred to a coroner and investigated by them, rather than reviewed by medical examiners.

Maternal deaths can be a complex area. There are many sensitive matters to consider, which may also apply to other deaths, including culture, religion, spirituality, emotional intelligence, community belonging and legal requirements. While it is not feasible to explore all these issues in depth in this good practice paper, links to further information are included.

All maternal deaths must be reported to MBRRACE-UK, which is a national collaborative programme of work involving the surveillance and investigation of maternal deaths, stillbirths and infant deaths, including the Confidential Enquiry in Maternal Deaths.

At present, maternal deaths may be underreported, especially deaths occurring in the later period from 42 days to 1 year after the end of the pregnancy when the pregnancy has ended in a termination or miscarriage.

The Death Certification Reforms coming into force in September 2024 include a new MCCD. This has several new fields, one of which asks: 'was the deceased pregnant within the year prior to their death?' and 'if the deceased was pregnant within the year prior to their death, did the pregnancy contribute to their death?'

Medical examiners can clearly play a key role providing feedback and detecting when care could have been better, so that healthcare providers can make improvements for future patients.

The sections below set out some specific areas to consider, but these are not exhaustive. It should also be recognised there are important differences between expected deaths in hospitals and those in the community. In community settings, several healthcare professionals may be in contact with the patient. In hospital, delays to seeing a consultant may be associated with worse outcomes.

Maternal death investigations – MBRRACE-UK

Many maternal deaths will be notified to the coroner for investigation. All deaths of women during pregnancy or up to a year after the end of pregnancy must be reported to MBRRACE-UK, which is a national collaborative programme of work involving the surveillance and investigation of maternal deaths, stillbirths and infant deaths.

MBRRACE-UK is the collaboration appointed by the Healthcare Quality Improvement Partnership to run the national Maternal, Newborn and Infant Clinical Outcome Review Programme.

The latest set of data presented by the MBRRACE-UK collaboration shows that the mortality rate for women who died during or soon after pregnancy 'has increased to levels not seen since 2003–2005.'

The maternal death rate in the UK in 2020–2022 was 13.41 deaths per 100,000 maternities, compared to 8.79 deaths per 100,000 maternities reported in the previous complete 3-year period (2017–2019).

Thrombosis and thromboembolism were the leading causes of death in women who died during pregnancy or within 6 weeks of their pregnancy ending. COVID-19 was the second most common cause of death.

Rates among women from ethnic minority backgrounds are significantly higher, with Black women 3 times more likely to die during pregnancy or in the immediate postnatal period and Asian women twice as likely, compared to White women. Please see the Good Practice Series No.1: How medical examiners can support people of Black, Asian and minority ethnic heritage and their relatives for further information.

In a statement on 11 January 2024, The Royal College of Midwives called on the government for urgent action to prevent further avoidable maternal deaths.

The Royal College of Obstetricians and Gynaecologists has also raised concerns about the rising number of deaths.

Maternity and Newborn Safety Investigations Programme

The Maternity and Newborn Safety Investigations (MNSI) programme is part of a national strategy to improve maternity safety across the NHS in England. MNSI also carries out independent investigations, working with families and staff and providing recommendations.

All NHS trusts are required to inform MNSI about certain patient safety incidents that happen in maternity care. The programme was established in 2018 as part of the Healthcare Safety Investigation Branch and is now hosted by the Care Quality Commission (CQC).

Maternal deaths are investigated by MNSI if there is a family consent to access medical records and if there is a direct or indirect death of a woman while pregnant or within 42 days of the end of the pregnancy from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. MNSI does not investigate cases where suicide is the cause of death.

Maternity and Neonatal Independent Senior Advocacy, NHS England

NHS England is funding a pilot Maternity and Neonatal Independent Senior Advocacy programme. Information commissioning boards and NHS England are working together to deliver the Maternity and Neonatal Independent Senior Advocacy (MNISA) service.

MNISAs will contribute to delivering the Immediate and Essential Actions in the Ockenden Review and be available for families for meetings with clinicians where concerns are raised about maternity or neonatal care.

MNISAs will focus on supporting women and families where they have experienced an identifiable adverse outcome, as set out in the Ockenden Review.

Ockenden Review

The final report of the Independent Maternity Review (known as the Ockenden review, published in March 2022) covers the findings, conclusions and essential actions from the independent review of maternity services at the Shrewsbury and Telford Hospital NHS Trust published by the Department of Health and Social Care (DHSC).

Based on a review of all family cases that formed part of this investigation, the final report includes the following safety actions.

Learning from maternal deaths

Nationally, all maternal post-mortem examinations must be conducted by a pathologist who is an expert in maternal physiology and pregnancy-related pathologies.

In the case of a maternal death, a joint review panel or investigation of all services involved in the care must include representation from all applicable hospitals or clinical settings.

NHS England and Improvement must work together with the royal colleges and the Chief Coroner for England and Wales to ensure that this is provided in any case of a maternal death.

This joint review panel or investigation must:

- have an independent chair
- be aligned with local and regional staff
- seek external clinical expert opinion where required.

Learning from this review must be introduced into clinical practice within 6 months of the completion of the panel. The learning must also be shared across the learning management system.

Other investigations and reviews

East Kent Hospitals University NHS Foundation Trust

Following the independent investigation led by Dr Bill Kirkup CBE on maternity and neonatal services in East Kent Hospitals University NHS Foundation Trust, the *Reading the signals* report was published in October 2022. The report identifies 4 areas for action. The NHS could be much better at:

- identifying poorly performing units
- giving care with compassion and kindness
- team working with a common purpose
- responding to challenge with honesty.

Nottingham University Hospitals

NHS England commissioned an independent maternity review of maternity incidents, complaints and concerns at Nottingham University Hospitals (NUH) in May 2022. In January 2023**,** the trust was fined a record £800,000 after admitting to failings in the care of a woman and her baby, who died minutes after being born. This review will focus on identifying areas of concern within maternity care at NUH and will provide information and recommend actions.

In September 2023, Nottinghamshire Police announced a police investigation into the maternity services at NUH NHS Trust.

World Health Organisation

The World Health Organisation (WHO) report *Trends in maternal mortality 2000 to 2020* notes that ‘every day in 2020, approximately 800 women died from preventable causes related to pregnancy and childbirth – meaning that a woman dies around every 2 minutes.’

Find out more

- CQC: Getting safer faster: key areas for improvement in maternity services.
- GOV.UK: Coronial investigations of stillbirths.
- Final report of the Ockenden review.
- Maternity and neonatal services in East Kent: Reading the signals report.
- NHS Maternity Statistics, England – 2020–2021.
- Coronial investigations of stillbirths.
- MNSI.
- MBRRACE-UK: Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK.
- Ockenden Maternity Review
- NHS England: NHS Maternity Statistics.
- NHS England: Maternity and Neonatal Independent Senior Advocacy (MNISA).
- National Medical Examiner's Good Practice Series: Child deaths.
- NICE: Complications | Background information | Postnatal care | CKS | NICE
- Royal College of Midwives: Urgent action needed to reduce truly shocking death rate for new mothers, says RCM.
- Royal College of Obstetricians and Gynaecologists: The RCOG responds to the MBRRACE-UK maternal mortality 2020–2022 report.
- World Health Organisation: Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division.

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