Why caring for sick women matters

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Poole Hospital (v2- 2020)

Wessex maternity academy

- SHIP LMS and Dorset LMS
  - Southampton University Hospitals FT
  - Hampshire Hospitals FT
  - Isle of Wight NHS Trust
  - Portsmouth Hospitals Trust
  - Dorchester
  - Poole
  - Royal Bournemouth

- Virtual academy
- Shared training with a focus on
  - reducing variation
  - sharing good practice
  - innovation
  - efficiency
- Part of the SHIP/ Dorset LMS

Levels of care

Level 0	Patients whose needs can be met through normal ward care in an acute hospital
Level 1	Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the Critical Care team
Level 2	Patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care
Level 3	Patients requiring advanced respiratory support alone, or basic respiratory support together with support of at least two organ systems. This level includes all complex patients requiring support for multi-organ failure.

Department of Health, *Comprehensive Critical Care;* DoH, 2000.

Level of Care	Maternity Example
Level 0: normal ward care	Care of low risk mother
Level 1: Additional monitoring or intervention, or step down from higher level of care	» Risk of haemorrhage » Oxytocin infusion » Mild pre-eclampsia on oral anti-hypertensives/fluid restriction etc » Woman with medical condition such as congenital heart disease, diabetic on insulin infusion
Level 2: single organ support	**Basic Respiratory Support (BRS)** » 50% or more oxygen via face-mask to maintain oxygen saturation » Continuous Positive Airway Pressure (CPAP), Bi-Level Positive Airway Pressure (BIPAP) **Basic Cardiovascular Support (BCVS)** » Intravenous anti-hypertensives, to control blood pressure in pre-eclampsia » Arterial line used for pressure monitoring or sampling » CVP line used for fluid management and CVP monitoring to guide therapy **Advanced Cardiovascular Support (ACVS)** » Simultaneous use of at least two intravenous, anti-arrythmic/anti-hypertensive/vasoactive drugs, one of which must be a vasoactive drug » Need to measure and treat cardiac output **Neurological Support** » Magnesium infusion to control seizures (not prophylaxis) » Intracranial pressure monitoring » Hepatic support » Management of acute fulminant hepatic failure, e.g. from HELLP syndrome or acute fatty liver, such that transplantation is being considered
Level 3: advanced respiratory support alone, or support of two or more organ systems above	**Advanced Respiratory Support** » Invasive mechanical ventilation **Support of two or more organ systems** » Renal support and BRS » BRS/BCVS and an additional organ supported*
*a BRS and BCVS occurring simultaneously during the episode count as a single organ support	

Why caring for sick women matters

- Admission to adult intensive care during and after pregnancy is uncommon, with a rate of:
- 2.24 critical care admissions per 1000 maternities (pregnancy to six weeks postnatal)
- 2.75 per 1000 women in pregnancy, birth and the extended postnatal period up to 1 year.
- Admission is more common among women over the age of 35, women of black ethnic origin, and women who have had three or more previous births.
- The most common reasons for admission are obstetric haemorrhage and infection, but there is a broad range of indications.
- The most common infectious cause for admission is pneumonia.
- Most admissions during the postnatal period are for reasons unrelated to pregnancy.

- (NMPA survey 2015/2016)

Why caring for sick women matters

- Serious morbidity reported in 7.3 women per 1000 maternities (NHS Quality Improvement Scotland, 2010)
- Approximately 5% of all women require higher level care in our maternity units
- Wide variation in maternity services
  - Staff experience & skill
  - Equipment
  - Access & Proximity to (specialist) critical care

Why caring for sick women matters

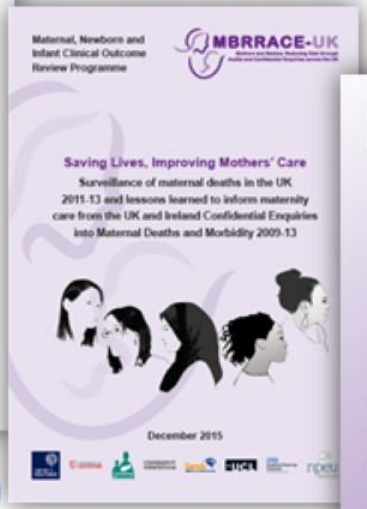
- Challenges in the NHS
  - Timely access to care
  - Fragmented communication
  - Availability of critical care beds
- Increasing complexity
  - Obesity
  - Maternal age
  - Pre-existing health conditions

Maternal Mortality in the UK

2010-12

10 per 100,000 maternities

2011-13



9 per 100,000 maternities

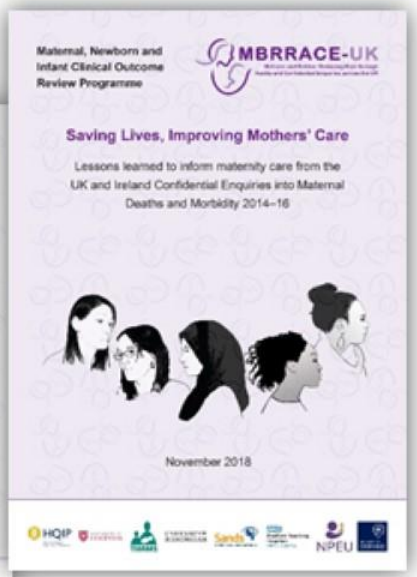
2012-14

8.5 per 100,000 maternities

2013-15

8.8 per 100,000 maternities

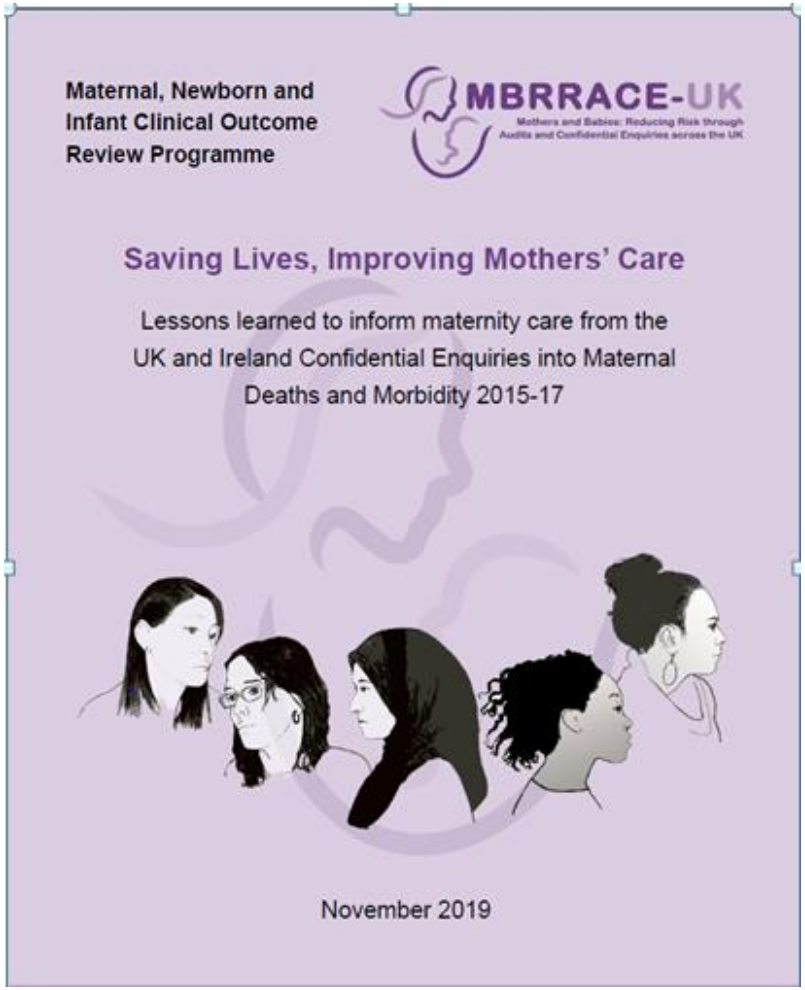
2014-16



9.8 per 100,000 maternities

MBRRACE-UK
Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK

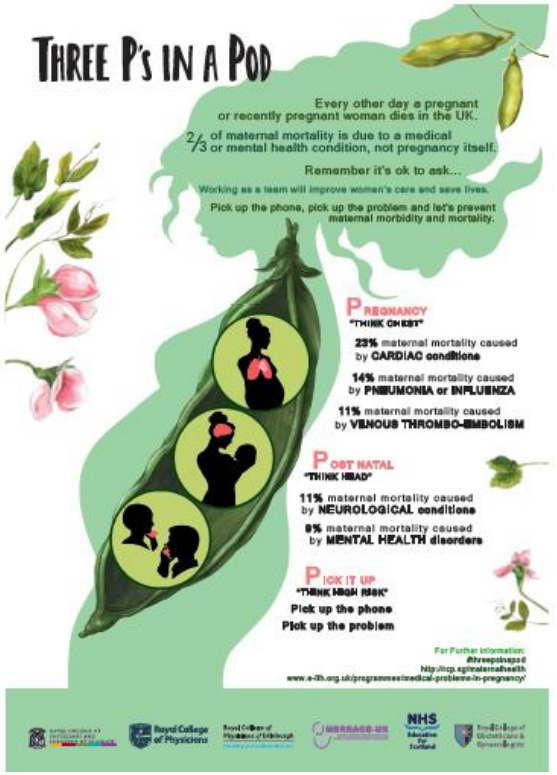
Saving Mothers' Lives, Improving Care



- 240 women died in 2013-5
- For every woman who dies at least 9 have severe morbidity
- 2016 report (2012-2014 cases) features lessons for critical care
- The survival rate amongst pregnant and postpartum women admitted to general critical care units is high (>98%) (ICNARC 2013) amongst the women who die, many receive a very high standard of care.

Key messages from MBRRACE 2016/ 2017

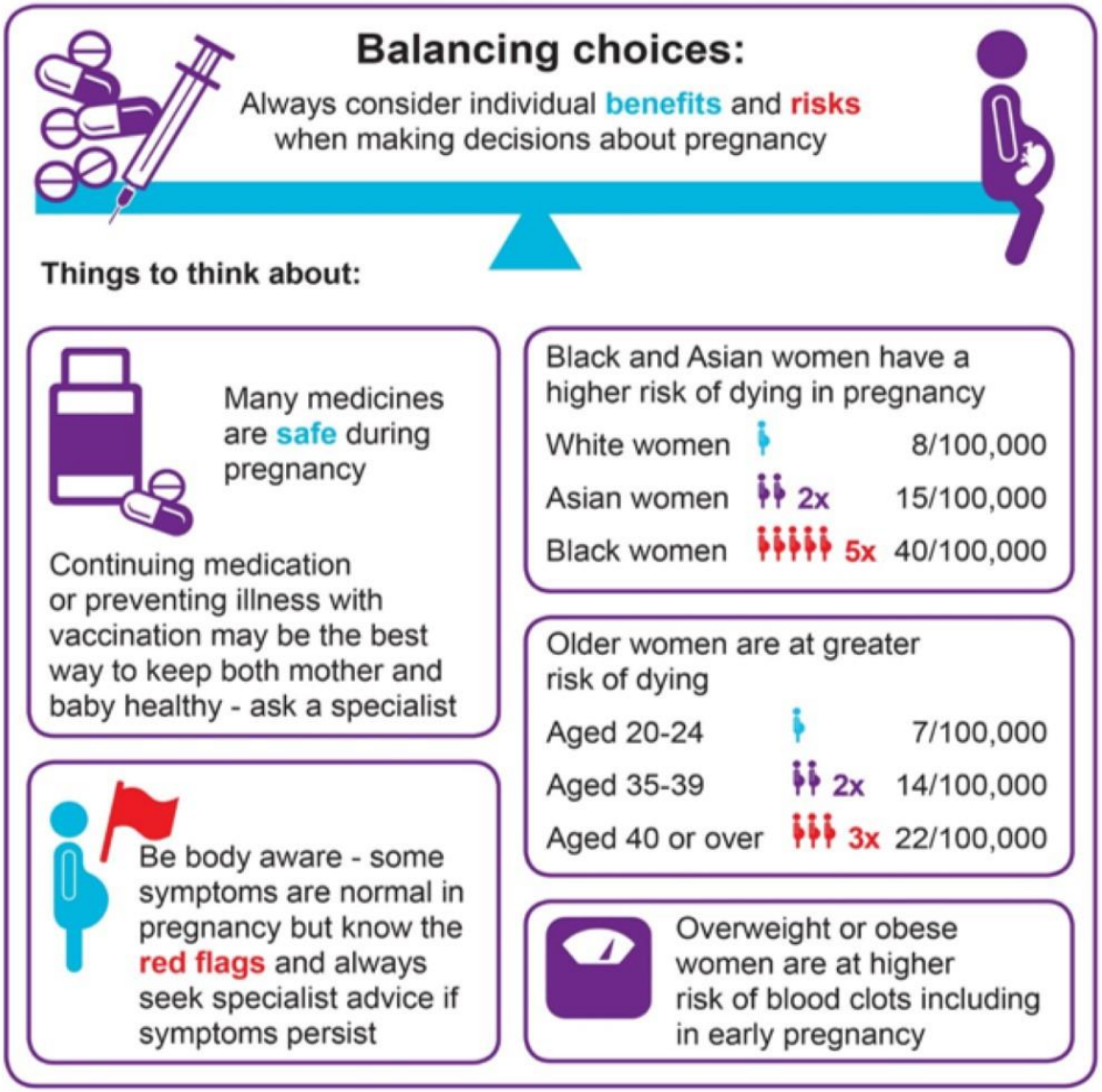
- Transfers should take place to definitive point of care
- Severe respiratory failure in pregnant and postpartum women should trigger early referral to an ECMO centre.
- Daily review when not on obstetric unit but obstetric MDT
- Escalate care and initiate with support from critical care



Key messages from previous MBRRACE Reports

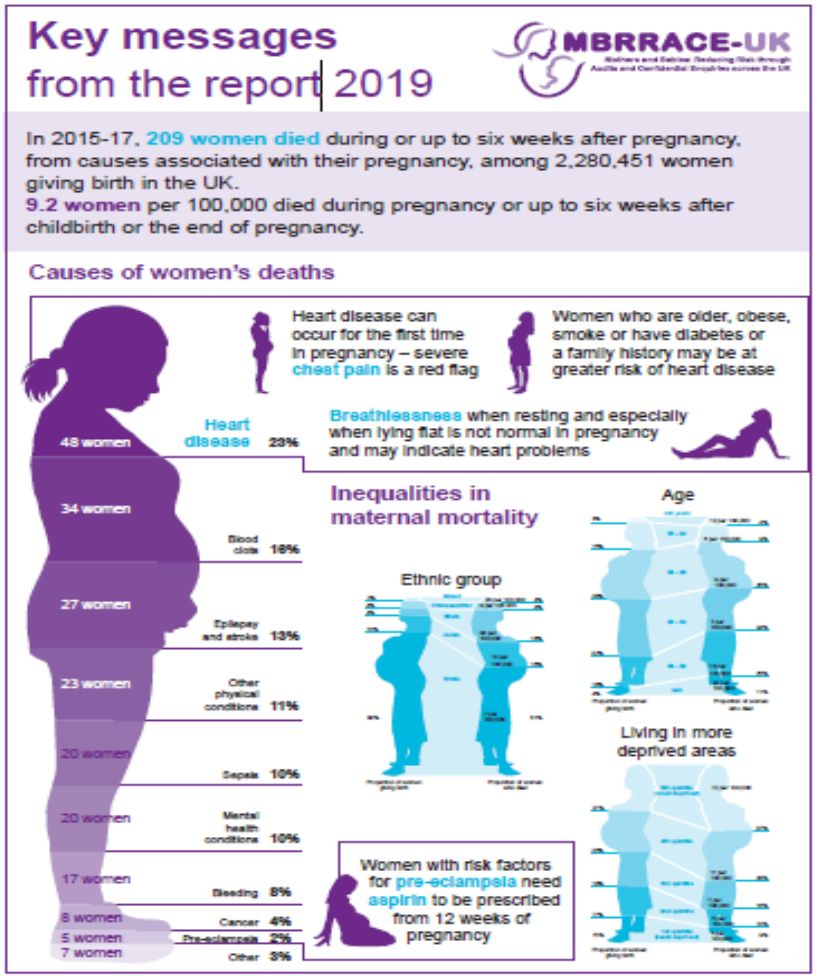
- Early recognition of critical illness, prompt involvement of senior clinical staff and authentic multi-disciplinary team working remain the key factors in providing high quality care to sick pregnant and postpartum women.
- Pregnant or recently pregnant women should have access at all times to a healthcare professional who has enhanced maternal care competencies.
- The route of escalation to critical care services should be clearly defined, and include multidisciplinary discussion.
- Critical care outreach or an equivalent service should be available to ill women, and provide support and education
- to healthcare professionals delivering enhanced maternal care.
- Reduced or altered conscious level is not an early warning sign; it is a red flag which indicates established illness.
- Key investigations must not be delayed because of pregnancy.

MBRRACE 2018



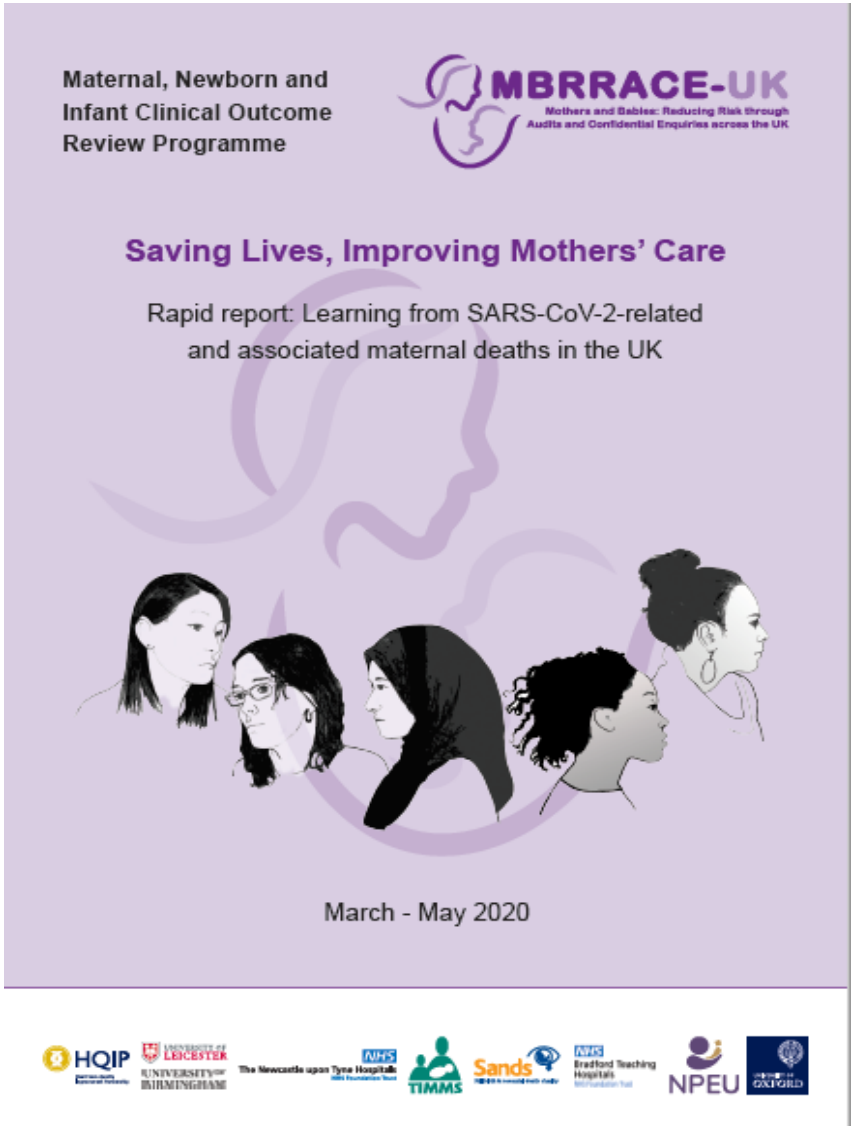
MBRRACE-UK

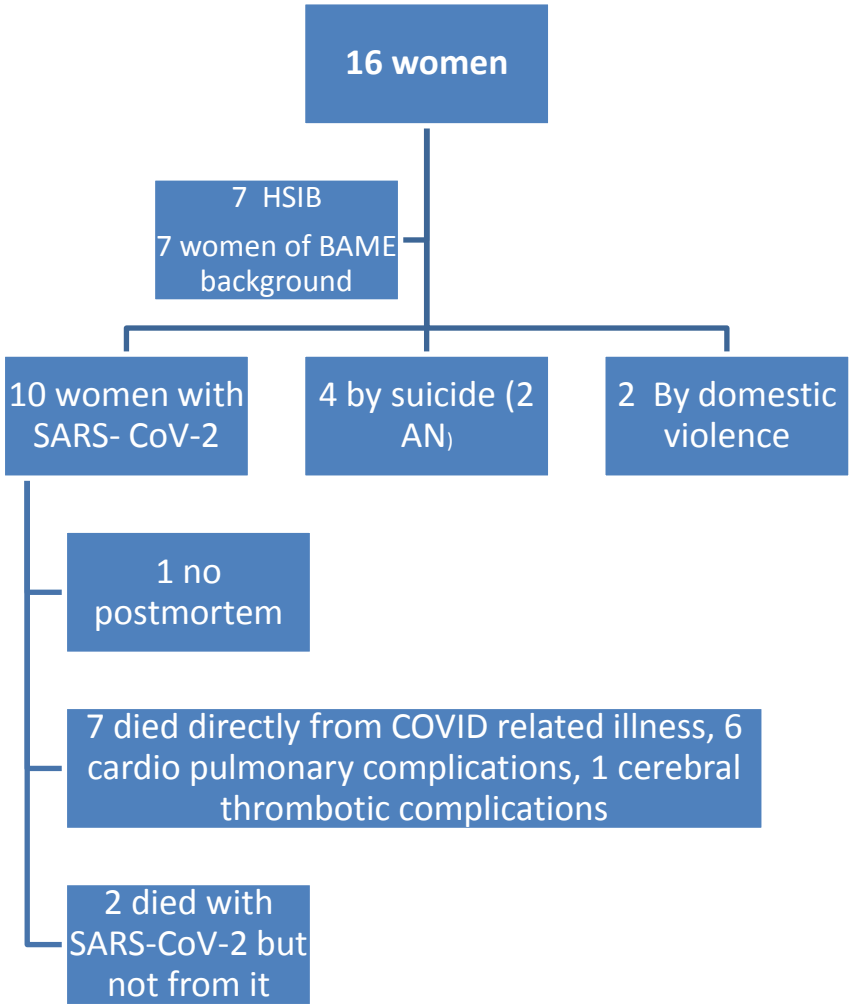
MBRRACE 2019



- In 2015-2017 209 women died
- 9.2 women per 100,000 died during pregnancy or up to six weeks after childbirth or the end of pregnancy
- Causes of death
- Heart disease (23%)
- VTE (16%)
- Epilepsy and stroke (13%)
- Other physical conditions (11%)
- Sepsis (10%)
- Mental health Conditions (10%)
- Bleeding (8%)
- Cancer (4%)
- Pre eclampsia (2%)
- Other (3%)

COVID- 19

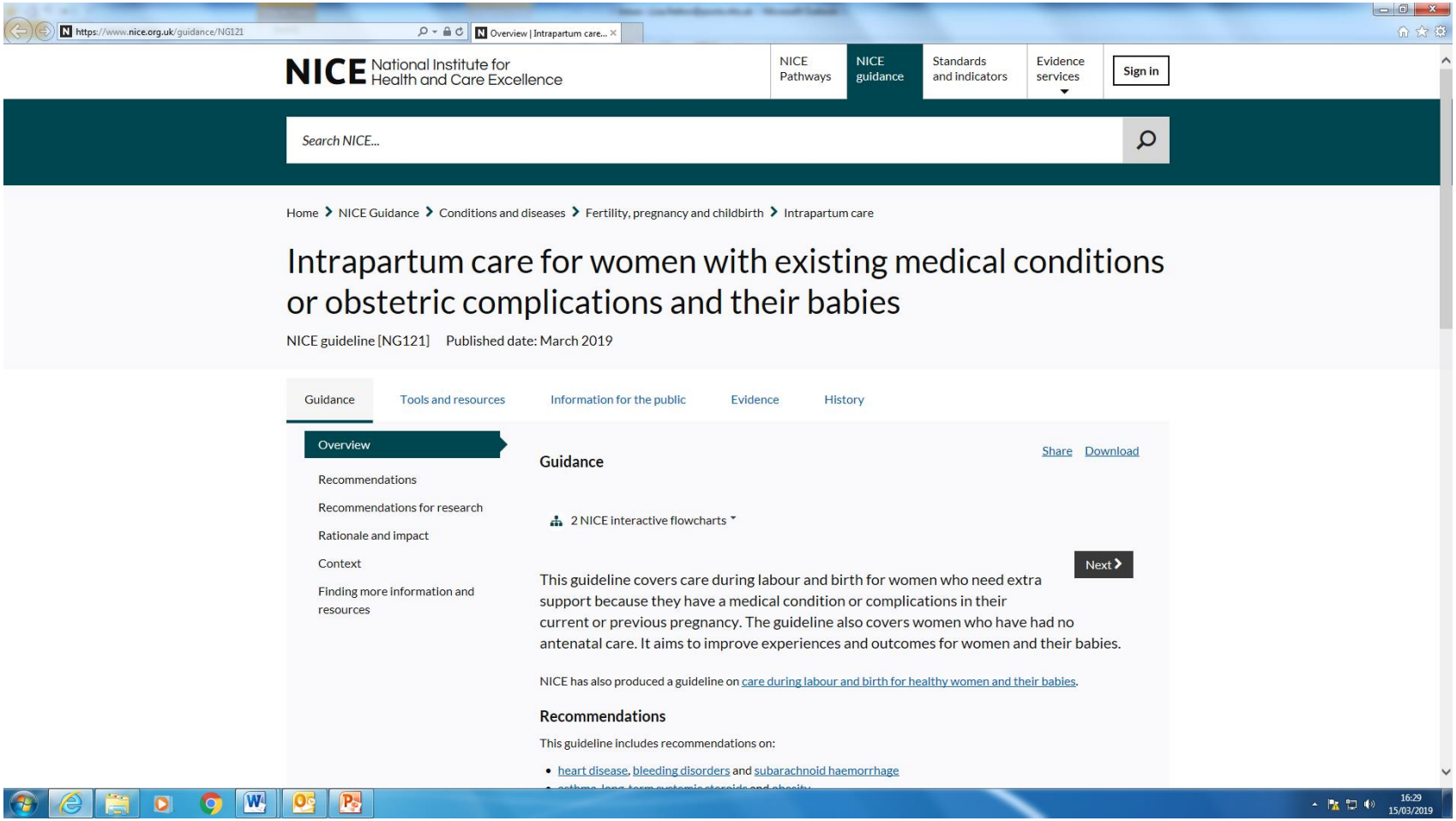

Maternal, Newborn and Infant Clinical Outcome Review Programme
MBRRACE-UK
Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK
Saving Lives, Improving Mothers' Care
Rapid report: Learning from SARS-CoV-2-related and associated maternal deaths in the UK
March - May 2020


16 women
7 HSIB
7 women of BAME background
10 women with SARS- CoV-2
4 by suicide (2 AN)
2 By domestic violence
1 no postmortem
7 died directly from COVID related illness, 6 cardio pulmonary complications, 1 cerebral thrombotic complications
2 died with SARS-CoV-2 but not from it

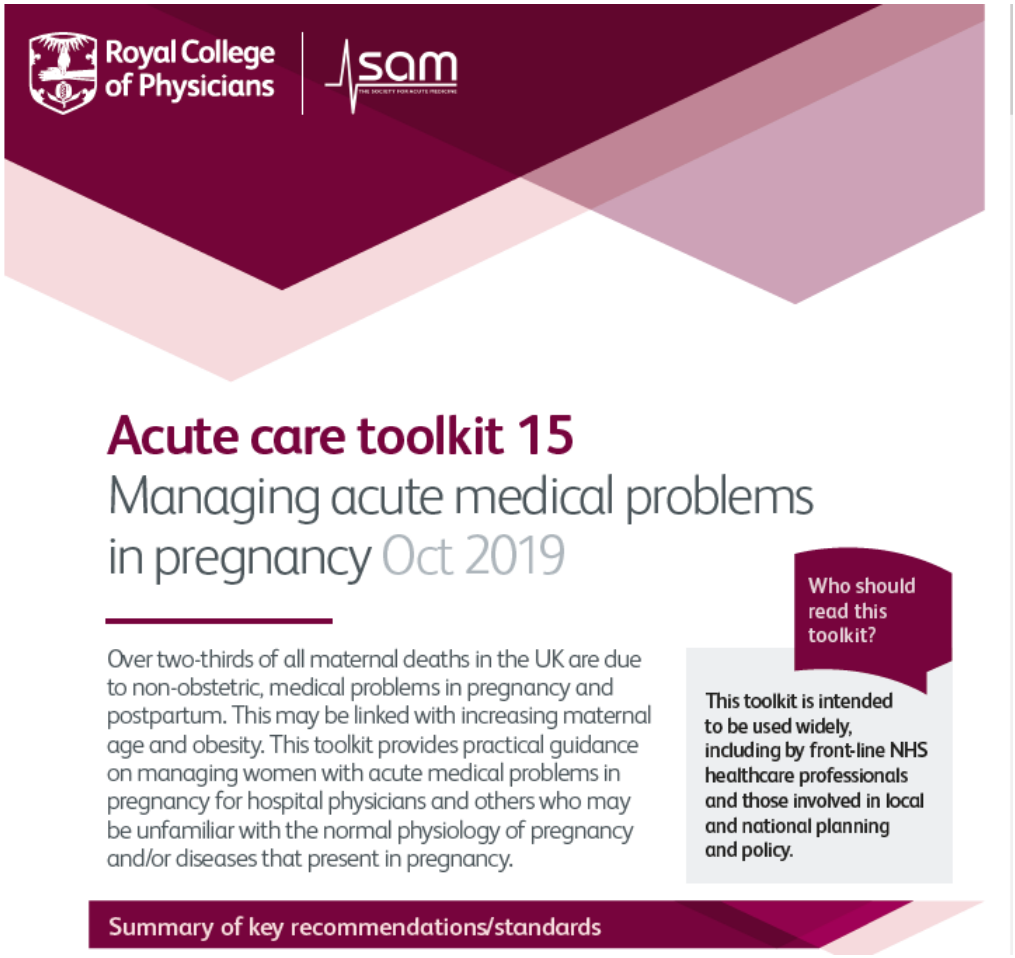
Key messages

- All staff have a responsibility to:
- Be aware what to do when a woman is tested as positive to COVID
- Include advice to the woman on symptoms of deterioration and when to seek further help
- Be aware of high risk groups- women of BAME background, higher BMI, diabetes, hypertension and triage appropriately
- Use the MDT during any admission- seek support out of the maternity unit as required planning place of care, treatments and initiating care until level 3 care available
- Consider mental health needs and face to face care
- Understand processes for local reporting and safeguarding when domestic violence reported.

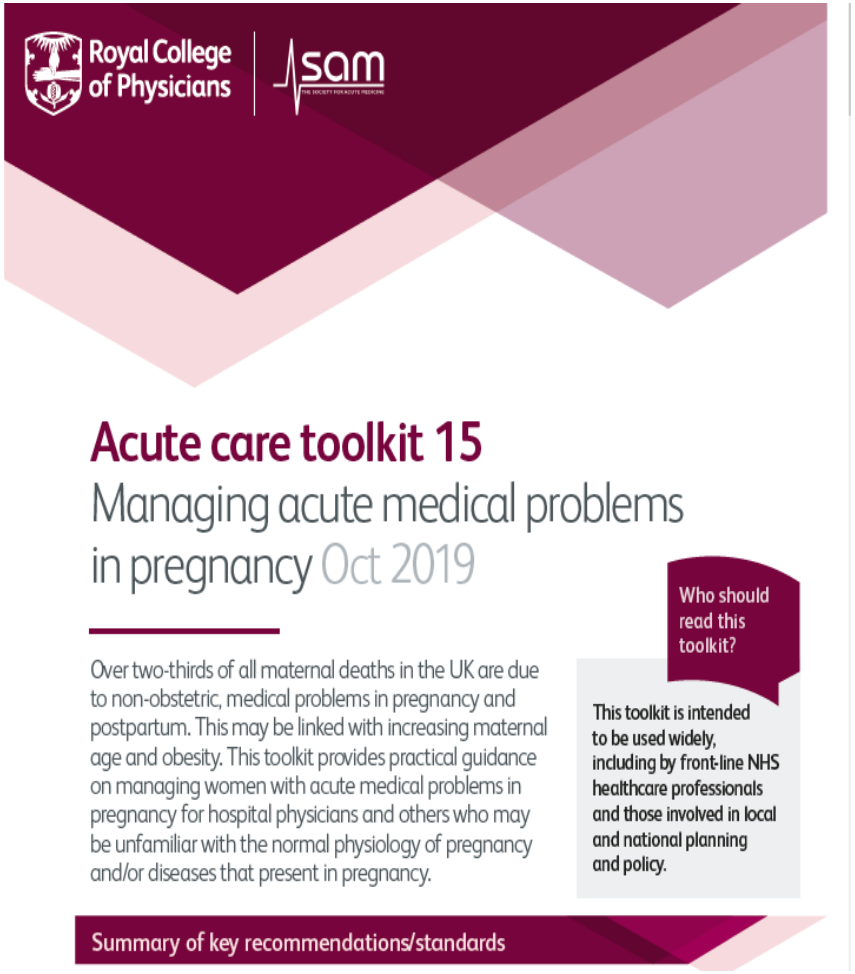
NICE guidance (2019)



RCP toolkit (2019)



- Details
- Normal pregnancy changes including
- Physiology
- Biochemical changes
- Advice regarding radiological investigations
- Medication use



Women's experiences

- Common feelings
  - Fear,
  - Frustration,
  - Disempowerment
  - Shock during the immediate emergency,
  - Symptoms of anxiety,
  - Alienation and
  - flashbacks in the aftermath.

Hinton et al (2015)

- Clara had a haemorrhage and hysterectomy after giving birth to her first child. She did not appreciate how ill she had been until her mother brought in a photo of her newborn and stuck it on the end of the bed.

'*I remember looking at this picture, and going, it's the sort of thing people do to help you pull through…And I sort of went, this isn't good, is it? I'm genuinely really sick? And that sort of brought it home*.' (Clara)

Why caring for sick women matters

Care in a maternity setting
Pros

- Support from critical care outreach team
- Avoid transfer for the woman
- Baby nearby
- Support with breast feeding
- Understanding of pregnancy and birth experience

Care in a maternity setting
Cons

- Can be harder to ensure review by all specialities
- Focus on obstetric complications
- Reliant on maternity staff having necessary skills and resources

Why caring for sick women matters

Care in a critical care setting
Pros

- Safest place for sickest women
- Care from all specialities
- Focus on medical complexity
- Access to psychological support following intensive care admission

Care in a critical care setting
Cons

- Loud, alien environment
- Baby not with mother
- Women need to process change of environment as well as health
- Reduced support with breast feeding
- Reduced familiarity with obstetric complications
- Increased risk of HCAI

Impact of significant illness

- Vulnerable to further complications e.g. VTE
- Loss of muscle tone
- Fatigue
- Gaps in memory and the story
- Impact on bonding
- Longer hospital stay
- Delayed recovery
- Impact on partner and family
- Reframe expectations of birth and early motherhood
- PTSD, postnatal anxiety or depression
- Consequences for future pregnancy

Impact on staff

So what about the staff?

Consider the support you have in trust?

Hot debriefs

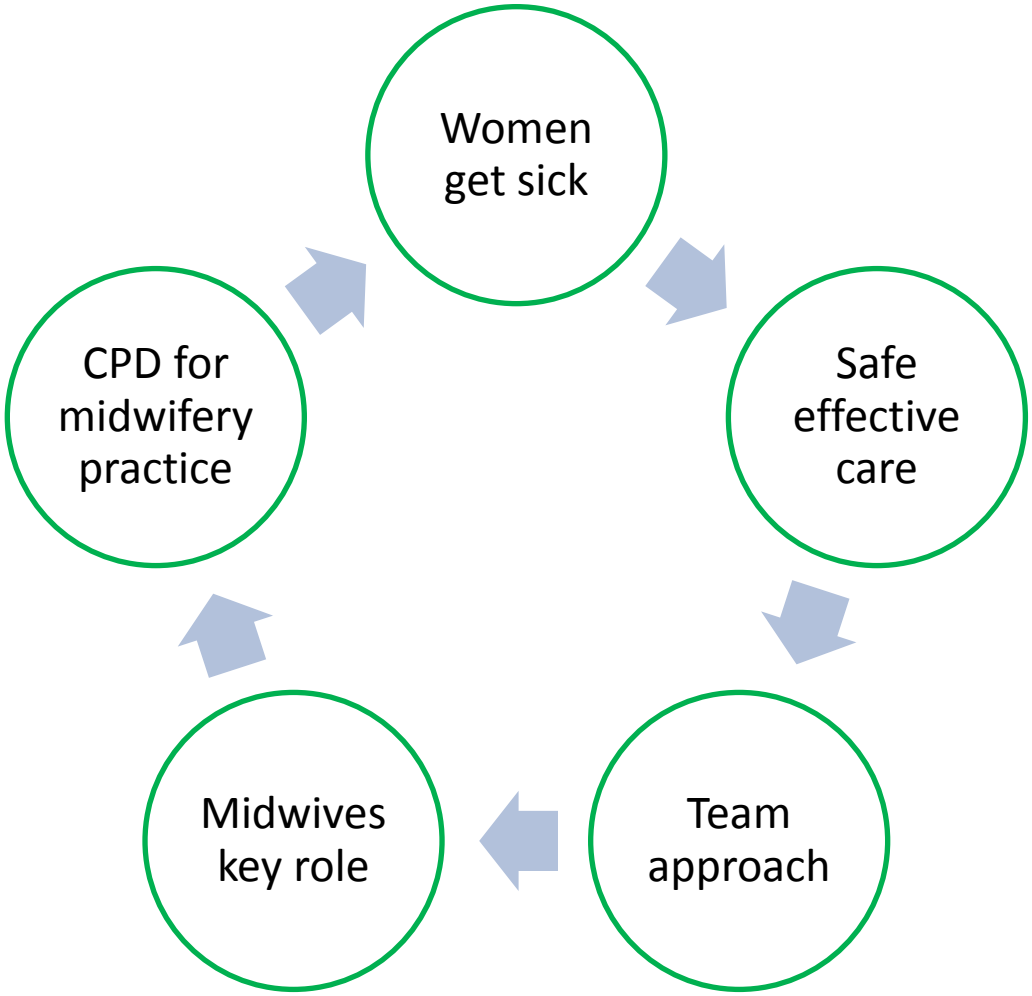
PMA

Trust wide counselling

Consider yourself and others

Tea is never just tea

What does this all mean?



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