# UK Maternal Cardiology Society

**Newsletter - July 2020**

UK Maternal
Cardiology Society

## Welcome message
## Dr Cathy Head
### President of the UK Maternal Cardiology Society

I am delighted to welcome you to the first issue of the UK Maternal Cardiology Society (UKMCS) newsletter. The UKMCS is a new professional body set up to advance the diagnosis and management of cardiac disease in pregnancy through awareness, education and research, and thereby to support the delivery of high quality, safe and equitable maternal cardiology care nationally and internationally. The UKMCS is an affiliated society of the British Cardiovascular Society (BCS).

The society is multidisciplinary and membership is open to all healthcare professionals actively involved in the care of women with cardiac disease in pregnancy or research in this field. We have members from obstetrics, midwifery, cardiology, obstetric medicine, anaesthetics and nursing. If you are not already a member please consider becoming one and encourage any interested colleagues too. We are particularly seeking to increase representation from midwives.

In the early days of the COVID-19 pandemic we produced guidance on risk assessment to support decision making on shielding. Our current projects include a webinar series, a valve disease in pregnancy registry, several research projects and a guideline on assisted reproduction in women with cardiac disease. Information on how to get involved will be sent to all members so watch this space!

I would also be very interested to hear your experience during COVID-19 and your thoughts on how we can share what we have learned to move our maternal cardiology services forward.

All best wishes

Cathy Head
UKMCS President

## Join the UKMCS

**Ordinary membership is open to all healthcare professionals actively involved in the care of women with cardiac disease in pregnancy or research in this field. The society is multidisciplinary and its council aims to reflect the composition and professional interests of its membership.**
**Current annual membership fees are £50 for consultants and £30 for all other professional groups. To join please contact ukmcs@bcs.com**

# Lessons from the 2019 Confidential Enquiries in to Maternal Death Related to Heart Disease

Once again, cardiovascular disease has emerged as the leading cause of death in pregnant and recently postpartum women in the latest MBRRACE report released in December 2019.

Socio-economic factors played a major role, and nearly a quarter of women who died were born outside the UK. The women who died were more likely to come from BAME backgrounds, and 20% were known to social services.
Of all women who died, 14% were known to have pre-existing cardiac problems; cardiovascular deaths occurred mainly in the early postpartum period, with 39% in the first 42 days postpartum. Only 23% died during pregnancy.

The overall cardiovascular mortality is largely unchanged from previous triennia, and in only 43% of deaths, the care they received was classified as good. Noteably in 27% of deaths, changes in care could have made a difference to the woman's outcome.

The most common causes of cardiovascular death were myocardial disease/cardiomyopathy (27%) and ischaemia (24%). The report once again highlights the need for preconception counselling, specifically including women who are being considered for assisted reproduction.

MBRRACE-UK. Saving Lives, Improving Mothers' Care - Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2015-17. Oxford: National Perinatal Epidemiology Unit, University of Oxford 2019 Available here

**Key messages from the report relevant to the heart teams looking after pregnant women and those considering fertility treatment are:**

- **A raised respiratory rate, chest pain, persistent tachycardia and orthopnoea are important signs and symptoms of cardiac disease which should always be fully investigated. The emphasis should be on making a diagnosis, not simply excluding a diagnosiss**
- **Repeated presentation with pain and/or pain requiring opioids or preventing a woman caring for her baby is a 'red flag' and warrants a thorough assessment of the woman to establish the cause**
- **ECG and measurement of troponin levels are recommended when a pregnant woman has chest pain. Echocardiography is recommended in any pregnant patient with unexplained or new cardiovascular signs or symptoms**
- **Following resuscitation from an arrest with a likely cardiac cause, coronary angiography ± percutaneous coronary intervention is the appropriate initial diagnostic investigation**
- **Genetic counselling should state for women known to be carriers of any inherited condition, whether the associated genetic mutation is known or unknown, and whether they need a cardiovascular risk assessment in pregnancy. Anyone with a family history or genetic confirmation of aortopathy or channelopathy should be referred for cardiac assessment before pregnancy**
- **Focused, point-of-care ultrasound investigations can help guide decision making in the management of maternal collapse. A limited cardiac echo study as well as a FAST scan can provide vital clues to differentiate key diagnoses and is the gold standard of care for a woman with severe cardiovascular instability or compromise.**
- **Electrical cardioversion is safe in all phases of pregnancy. Immediate electrical cardioversion is recommended for any woman with a tachycardia with haemodynamic instability and for pre-excited atrial fibrillation**
- **Women with cardiovascular disease should be given clear guidance on contraception**

# COVID-19 and pregnancy – A Summary of the UK Obstetric Surveillance System report

In March 2020, the World Health Organization (WHO) declared a global pandemic of a novel coronavirus disease (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). COVID-19 has dominated our lives for the past three months, both inside and outside of work, with many of us involved in the management of pregnant women with confirmed or suspected SARS-CoV-2 infection. Below is a short summary of the key findings from the UK Obstetric Surveillance System (UKOSS) report on the characteristics and outcomes of pregnant women hospitalized with confirmed SARS-CoV-2 infection in the UK. (Full report here).

The authors describe a national cohort of pregnant women hospitalised with SARS-CoV-2 infection, describe their outcomes, and the transmission of infection to infants. All 194 obstetric units in the UK were included. Between 1st March 2020 and 14th April 2020, 630 pregnant women were admitted to hospital with confirmed SARS-CoV-2 infection among and estimated 86,293 maternities. Comparison cases were two women giving birth prior to any woman hospitalized with confirmed influenza between 1/11/17 and 31/10/18. After exclusions, the final cohort included 427 pregnant women hospitalised representing estimated incidence of 4.9 per 1000 maternities (95% CI 4.5-5.4 per 1000 maternities).

The majority of the women (81%) were symptomatic at a median of 34 weeks' gestation (IQR 29-38). Main symptoms were fever, cough and breathlessness. Black, Asian or other Minority Ethnic (BAME) background, pre-existing comorbidities, older maternal age and increased BMI were associated with admission. Strikingly, 56% of women in the cohort were from a BAME background. Forty (9%) woman with COVID-19 required respiratory support in a critical care setting, similar to the general population. Four required ECMO support. Five women (1%) died, case fatality rate 1.2% (95% CI 0.4 – 2.7%); SARS-CoV-2 associated maternal mortality rate of 5.6 (95% CI 1.8 -13.1) per 100,000 maternities. 392 women were discharged well (92%) and 30 (7%) remained inpatients at the time of reporting.

At the time of submission 247 (58%) had delivered, or encountered pregnancy loss; live birth in 240 (97%). In the comparison cohort, live birth rate was not significantly different, 99%. 12% delivered pre-term, due to maternal respiratory compromise. C-Section was the mode of delivery in 58%, with a COVID-19 maternal indication in 16%. There were 3 still births and 2 neonatal deaths, 3 deaths were definitely unrelated to COVID-19. It remains unclear if COVID-19 contributed to death in two of the still born cases. Twelve (5%) of infants tested positive for SARS-COV-2 RNA, 6 within the first 12 hours after delivery, suggesting vertical transmission may occur.

In conclusion, this early UK data suggest that the majority of pregnant women do not have a greater risk of severe COVID-19 related illness than the non-pregnant general population, and that transmission of infection to infants of infected mothers is uncommon. This is a rapidly evolving area however, with further data likely to emerge in the coming weeks to months to inform us and help optimise clinical care. Furthermore, in time we hope to see data specific to women with cardiac disease and pregnancy emerge to further our understanding of risk in this group.

Further information on the UKOSS COVID-19 in pregnancy study can be found here

## UKMCS Council

**Officers:**

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| Dr Cathy Head | Consultant Cardiologist | President |
| Dr Dawn Adamson | Consultant Cardiologist | Treasurer |
| Dr Jo Trinder | Consultant Obstetrician | Secretary |

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| Dr Anita Banerjee | Consultant Obstetric Physician |
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| Dr Anna Herrey | Consultant Cardiologist |
| Dr Kenneth Hodson | Consultant Obstetrician |
| Dr Catherine Nelson-Piercy | Consultant Obstetic Physician |
| Dr Rachael James | Consultant Cardiologist |
| Prof Mark Johnson | Consultant Obstetrician |
| Mrs Maggie Simpson | Senior Nurse Specialist |

## Contribute to our newseltter

In future newsletters we would like to highlight different models of service delivery in obstetric cardiology. If you would like to contrinube with any aspect of your service please contact ukmcs@bcs.com

## Upcoming events

The first UKMCS webinar will take place on Thursday, 16th July from 6.30pm to 8pm

***Maternal cardiology: lessons from the confidential enquiry***

**Overall messages for care**
*Dr Cathy Head*
**The RCP toolkit**
*Dr Anita Banerjee*
**Valve and congenital heart disease**
*Dr Sarah Vause*
**Initial insights from the COVID in pregnancy UKOSS study**
*Prof Marian Knight*
**Followed by panel and participants**
A discussion and questions including request to bring cases for next session on cardiomyopathy

To book your place and/or submit a case for discussion, please send your name, profession, institution and email address to ukmcs@bcs.com. There is no cost for this webinar

## Follow us

**@theUKMCS**

The UKMCS Twitter feed will share guidelines and updates in best practice in the area of obstetric cardiology.

If you would like to share areas of best practice or other aspects of service delivery you think will benefit others, please DM us.

We will soon have a website which will facilitate timely updates from the UKMCS and host our educational resources. Details of its launch will be provided @theUKMCS