

British Maternal and Fetal Medicine Society - Written evidence (PRT0008)

Thank you for the opportunity to submit evidence on behalf of the British Maternal and Fetal Medicine Society. The BMFMS aims to provide a forum where issues of relevance to Obstetricians and other professionals involved in pregnancy care are discussed. In particular, the Society seeks to disseminate knowledge, promote research and audit, encourage the interface with industry to promote technological advances, establish good quality training programmes and encourage development of clinical guidelines. The ultimate goal is to encourage improved standards of pregnancy care. The BMFMS provides a Maternal and Fetal Medicine input to a variety of Royal College of Obstetricians and Gynaecologists (RCOG) committees. The Society makes representation to other Colleges and other national bodies/organisations when appropriate. In preparing this response, we have consulted with our executive committee who have discussed the consultation request and our response within their respective networks.

The executive committee supports and strongly endorses the need to focus on the prediction and prevention of preterm birth (PTB) as the leading cause of perinatal mortality and morbidity and to reduce the significant lifelong burden of prematurity.

BMFMS members recognise the significant improvement in care following the introduction of the [Saving Babies Lives Care Bundle \(SBLCB\)](#) and the drive for complete early risk assessment. Early identification of women at high risk of preterm birth, cervical length screening and the appropriate use of interventions has reduced PTB. However, we must do this better with consistency across the whole maternity network, and deliver the recommendations within SBLCB to the same high standard to all women, in every maternity setting. There needs to be improved access to regional specialist centres and to specialist clinicians for women with complex histories. This relies on funding to support these regional centres. We

must try to do what we know works better and recognise when care needs to be supported outside the local maternity setting.

PTB screening

At present, spontaneous PTB screening is limited to cervical length measurements (Heath et al. 1998), the use of fetal fibronectin (Leitich et al. 1999; Honest et al. 2002) and clinical history taking for risk factors for preterm birth. Many of the risk factors are dependent on what has happened in a previous pregnancy; therefore, additional measures other than clinical history are required to help women in their first pregnancy. Prevention of the first preterm birth must be a priority.

Universal screening for spontaneous preterm by offering transvaginal cervical length (TVUS) to all populations remains an area of uncertain clinical benefit. The International Society of Ultrasound in Obstetrics Gynaecology (ISUOG) recommends universal screening with TVUS between 18-24wks in singleton pregnancies (Coutinho et al. 2022) while Royal College of Obstetricians and Gynaecologists (RCOG) currently only advocates targeted screening for intermediate and high-risk women. Studies have shown that a universal transvaginal cervical length screening program is associated with a reduction in preterm birth rate (Son et al. 2016; Figarella et al. 2023). Previous studies have shown the acceptability of transvaginal ultrasound in women to measure cervical length (Reddy et al. 2024); however, prior to a change in guidance in a UK setting there needs to be an analysis of implementation with evaluation of the implications on cost and training sonographers.

In women who are high risk of preterm birth, asymptomatic evaluation with fetal Fibronectin (PTB prediction test) allows risk to be further stratified. This provides a research opportunity to evaluate this test in a population where there are no identified risk factors, to potentially allow the better stratification of women, and the prevention of the primary

preterm birth. It is this population from which the largest number of preterm births occur and thus they must become the research priority.

In the context of iatrogenic PTB, where early delivery is indicated by either fetal or maternal complications in pregnancy, the prediction of these complications is required to optimise care and allow early interventions to safely prolong pregnancy. Optimising first trimester screening, using ultrasound and blood tests, is therefore needed to predict complications particularly preeclampsia (Tan et al. 2018), fetal growth restriction, gestational diabetes and intrahepatic cholestasis of pregnancy.

PTB Prevention

For the last 60 years there have been no new preventative treatments. At present, the use of progesterone (Fonseca et al. 2007; Romero et al. 2018), cervical cerclage (To et al. 2004, Shennan and Story. 2022) or Arabin pessary (Goya et al. 2012) remain the limited interventions. We must promote the evaluation of alternative treatments and work closely with initiatives such as [Medicines in Pregnancy](#) to repurpose and drive forward new preventative treatments.

Some iatrogenic PTB is inevitable despite optimising maternal and fetal health to manage pregnancy complications. The incidence of iatrogenic PTB rates at later gestations have risen in a drive to reduce the stillbirth component of perinatal mortality. These increases are due to more fetal growth screening with ultrasound scanning, more intensive antenatal care, a more complex population with co-morbidities such as diabetes and hypertension, older age at conception and multiple pregnancies. Targets for reduction in preterm birth need to focus on the reduction of spontaneous preterm birth and those at the earlier gestations where the greatest mortality and morbidity. Within this remit we need to be ambitious with targets we set.

Further collaboration with public health needs to be established to identify the drivers for preterm birth particularly in areas where there are very high rates and significant inequalities in outcomes. These enquires need to explore the impact of population factors such as pollution, climate change, access to healthy food, health care engagement and improve preconceptual care.

There is an urgent need to increase research funding into studies examining the aetiology, screening, prevention and management of preterm birth. Understanding the aetiology and mechanisms involved in preterm birth can aid the development of better predictive tools and preventative treatments, leading to personalised care for women in their first pregnancy especially, as much existing screening is based on the presence or absence of certain risk factors at booking. Additionally, there is a paucity of research into the prediction and prevention of PTB in multiple pregnancies. This is especially significant, given the increasing incidence of multiple births due to overseas assisted reproductive techniques.

Our current management tools in reducing spontaneous PTB (sPTB) once a woman is deemed high risk for PTB are limited to progesterone, cervical cerclage and Arabin pessary. Further research into whether certain patient populations may benefit from a particular intervention are needed and new interventions are required. For example, there is no current treatment available for microbial driven sPTB which is one of the most common causes of extreme sPTB. Guidelines for the use of tocolytics, prophylactic steroids for fetal lung maturity and screening for PTB can be conflicting, and therefore a unified guideline based on current evidence would be useful for both clinicians and women.

Outcome data

The granularity of data reported in all units is crucial for more meaningful interpretations given the various phenotypes of preterm birth

(spontaneous, iatrogenic, extreme preterm, very preterm and late preterm). In addition, co-morbidities, ethnicity and social background are other factors that influence preterm birth and thus data on these factors should be reported in tandem. Adequate resources and funding are required to support unified data collection and analysis.

Summary Recommendations

In conclusion, adequate resources and funding into supporting a systems wide approach to preterm birth that is equitable is a priority. We recommend the following:

1. We recommend research to:

a) Determine whether screening with cervical length in this population and subsequent treatment with recommended interventions can be implemented in an NHS setting.

b) Determine how predictive tests such as fetal fibronectin could be used in this population

c) Research to understand the aetiology and mechanism of preterm birth in this population

2. Women who are high risk of preterm birth should all have access to the same level of high quality specialised care. This requires investment in specialist preterm birth clinics and regional networks and lead centres.

3. We need new tests for screening and prediction of PTB and new treatments to prevent PTB, whether these be to reduce the risk of spontaneous PTB or to treat the conditions that can lead to iatrogenic PTB such as fetal growth restriction, pre-eclampsia and obstetric cholestasis.

4. We must take on board the recommendations of the Medicines in Pregnancy commission to ensure that the UK is a leadership in the development of safe, effective and accessible Medicines for use in pregnancy.

5. There are significant impacts of inequality related to preterm birth rates. There needs to be further investment and collaboration with Public Health to understand the impact of population factors such as pollution, climate change, access to healthy food, health care engagement and improve preconceptual care.
6. To enable us to use routine data to support our efforts in research and improvements in care we need a unified, standardised set of data to capture risk factors, comorbidities, inequalities, management and outcome related to the different types of preterm birth.
7. We need to support care providers with a single guideline related to screening, prevention, preparation and care following a preterm birth.

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