# Obstetric medicine training: picking up where the licentiate in midwifery left off

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**ABSTRACT – Obstetric medicine is the care of women with medical problems in pregnancy. Medical problems may predate or arise *de novo* in pregnancy. Some are common and some are dangerous. Both obstetricians and physicians recognise the need for greater numbers of appropriately trained clinicians to care for such women. There is a demand for such training, particularly from trainee obstetricians. The Royal College of Obstetricians and Gynaecologists (RCOG) and the Royal College of Physicians (RCP) agree that there is a need for more formalised training in maternal/obstetric medicine and they are working together to develop special interest training in maternal medicine. The training will be open to both obstetricians and physicians and include theoretical and practical components. The practical training will take place in centres with established medical obstetric clinics and will be tailored (with appropriate modules) to the amount of previous experience in medicine or obstetrics.**

**KEY WORDS: maternal medicine, maternal mortality, obstetric medicine, training**

Times have changed since John Clarke cared for puerperal women in the Store Street Lying-in Hospital 200 years ago[1]. Most pregnancies are normal physiological events that result in a healthy mother and the birth of normal babies. Both maternal and perinatal mortality rates have fallen significantly over the last 50 years. Death in childbirth has moved from a common occurrence in John Clarke's day to a rarity such that many obstetricians and midwives may never see a case. However, more than 100 women still die in the UK each year as a direct or indirect result of pregnancy[2]. Most indirect maternal deaths are due to medical causes, mainly cardiac disease. Over half the direct deaths are medical, the most important causes being thromboembolism and hypertension/pre-eclampsia. A proportion of these deaths are preventable[2]. Pre-eclampsia is also the cause of much severe maternal morbidity[3]. The practice of midwifery, obstetrics, medicine and paediatrics has evolved over the last two centuries into distinct specialties with their own colleges, training programmes, postgraduate qualifications, codes of practice, and boundaries of care. In addition there are now recognised subspecialties such as obstetric anaesthesia and neonatology. As a result, care for pregnant women has improved. However, just as there was a need at the end of the eighteenth century for 'encouraging the medical establishment of the time to pay more attention to the special needs of women and children'[1], so too today there is a need for clinicians with expertise in the care of medical problems in pregnancy[4]. This need has been formally acknowledged by the Royal College of Obstetricians and Gynaecologists (RCOG) and the Royal College of Midwives (RCM), who have stated that 'During labour women with medical problems such as diabetes, heart disease, severe anaemia or sickle cell disease should have access to a general physician with particular interest in pregnancy and their medical condition'[5]. Similar recommendations appear in an earlier Report on Confidential Enquiries into Maternal Deaths in the UK[6]; 'There is a need to improve professional advisory and counselling skills for women with pre-existing (medical) diseases, both before and during pregnancy. {There is a need for} expert supervision and combined care with a specialist in the particular condition'[6].

Obstetric medicine is concerned with the care of women with medical disorders that may pre-date the pregnancy (such as asthma, epilepsy, systemic lupus erythematosis or hypertension), be specific to pregnancy (pre-eclampsia, peripartum cardiomyopathy, gestational diabetes, postpartum thyroiditis) or be coincidental to pregnancy (acute hepatitis, pneumonia). Some medical diseases are more common in pregnancy, for example, venous thromboembolism, urinary tract infection and Bell's palsy. Some medical disorders are unique to pregnancy, for example, hyperemesis gravidarum, obstetric cholestasis and acute fatty liver of pregnancy. The recognition and management of these disorders falls outside the expertise of many general physicians. Some general physicians and even endocrinologists, when asked to see women with hyperemesis gravidarum and thyroid function tests suggesting thyrotoxicosis, may assume that the latter has caused the former, whereas a raised free thyroxine and suppressed thyroid stim-

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## Key Points

- **Medical problems in pregnancy are common and potentially fatal**
- **The medical problems arising in pregnancy may be alien to the usual daily practice of general physicians, and even in the management of familiar conditions there are aspects of care that are unique to pregnant women**
- **Both obstetricians and physicians recognise the need for more maternal medicine specialists**
- **From whichever discipline (obstetrics or medicine) the clinician emerges, doctors who undertake to provide medical care to pregnant women should be adequately trained and have appropriate experience in the practice of medicine in pregnancy**
- **There is a demand for special interest training in maternal medicine from obstetricians**
- **Development of a joint RCP/RCOG special interest training programme is underway**

ulating hormone occur in up to 60% of cases of severe hyperemesis gravidarum[6]. Antithyroid medication and beta blockers in such circumstances are inappropriate and unnecessary. For other conditions, there are profound implications of pregnancy both in terms of the likelihood of successful pregnancy outcome and with regard to the risk of pregnancy leading to deterioration in the medical condition. Women with severe renal impairment risk end stage renal failure if they become pregnant and have a markedly increased risk of pre-eclampsia, intrauterine growth restriction and prematurity[8]. Pulmonary hypertension and Eisenmenger's syndrome carry a 40% risk of maternal mortality[9]. Women with type IV Ehlers Danlos syndrome are at risk from great vessel rupture if they become pregnant, with maternal mortality as high as 20–25%[10]. Appropriate and accurate pre-pregnancy counselling is vital for women with these and other medical conditions. Women need and wish to know how their medical condition (and the drugs used to treat it) may be affected by pregnancy, how their pregnancy and the fetus may be affected by the medical condition, and whether a medical complication they experienced in a previous pregnancy is likely to recur in subsequent pregnancies and what may be done to prevent or treat it[4].

Maternal medicine specialists bridge the gap between obstetricians, who may be unfamiliar with the management of some medical conditions, and physicians, who, although expert in the management of conditions within their own speciality, may not have much experience of managing these or other medical conditions when they complicate pregnancy. At present there is no training programme for maternal medicine for either physicians or obstetricians. There are only a few obstetric physicians and some obstetricians (mostly holding both the Member of the Royal College of Physicians (MRCP) and Member of the Royal College of Obstetricians and Gynaecologists (MRCOG) certificates) who practise maternal medicine. They have either emerged from other specialties, being self taught in maternal medicine, or followed individually designed training programmes. The RCOG do have a subspecialty training programme in maternal–fetal medicine, but this varies from centre to centre with regard to the amount of 'fetal medicine' compared to 'maternal medicine'. In many programmes the emphasis is predominantly on fetal medicine.

Women with medical problems in pregnancy in most centres are therefore generally cared for either by obstetricians or by physicians, rather than by maternal medicine specialists or obstetric physicians. In many hospitals it is the diabetologist who, because of his or her links to the antenatal clinic for the care of diabetic pregnancies, may be asked to see women with other medical problems in pregnancy that may lie outside his or her area of expertise. There are 'pockets' of physicians who have developed a particular interest in the interaction of their specialty and pregnancy. For example, there are several joint HIV specialist/obstetrician clinics around London for the management of HIV-positive women in pregnancy. However, many physicians are apprehensive of pregnancy and many obstetricians are afraid of medical conditions[4]. Much maternal morbidity results when drugs with a proven safety record in pregnancy (such as steroids) are discontinued or withheld because of inaccurate advice from health care professionals[11]. Similarly fetal morbidity or malformation may result if teratogenic drugs are not discontinued[12].

Pregnancy outcome for women with medical disorders is improved with appropriate joint multidisciplinary care. The best evidence for this is in diabetes[13]. Both the RCOG and the RCP recognise the need for specially trained clinicians, be they obstetricians or physicians, to care for women who enter pregnancy with a pre-existing medical problem or who develop a new medical problem in pregnancy. There are not yet enough obstetric physicians in the UK to justify making obstetric medicine a subspecialty in its own right with its own Certificate of Completion of Specialist Training (CCST). However, it is hoped that it may soon become a 'special interest' subject with appropriate formal training. There is certainly a demand for such training; 93% of the members of the British Maternal and Fetal Medicine Society (when canvassed) thought that trainees in obstetrics and gynaecology should have the opportunity for special interest training in maternal medicine. A joint RCP/RCOG formal training programme is currently being developed. A 'hub and spoke' model is proposed, such that the training will be provided in tertiary centres where specialised obstetric medicine clinics and maternal fetal medicine subspecialty training programmes already exist. The trainees will then provide the 'spokes' and be able to practise maternal medicine as a special interest, but with the appropriate training. The training will be open to both obstetricians and physicians. The components are a theoretical lecture course with assessment, and a practical element. The practical part will have defined learning objectives with a common core for all and additional modules in medicine for obstetricians and modules in obstetrics for physicians. There will be identified preceptors to undertake direct supervision of the trainees, hence the need to

be in centres that already have established obstetric medical clinics. Training arrangements in allocated centres will be flexible to allow for those who wish or who are able to undertake the training over one or two years such that it can be combined with specialist registrar training in either medicine or obstetrics and gynaecology.

Formalised training for interested health care professionals will provide a much needed high level of skill in the management of medical disorders affecting women pre-pregnancy, during pregnancy, labour and the puerperium. With better knowledge, practice and teaching in the discipline, it should be possible to reduce mortality and morbidity.

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