



**INSTITUTE OF
OBSTETRICIANS &
GYNAECOLOGISTS**

ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

Post CSCST TRAINING IN

OBSTETRICS & GYNAECOLOGY

Maternal Medicine



This curriculum of training in Maternal Medicine under the specialty of Obstetrics and Gynaecology was developed in 2017 and undergoes an annual review by the Subject Matter Experts, Mary Higgins / F Mc Auliffe / Jennifer Donnelly; Dr Ann O’Shaughnessy, Head of Education, Innovation & Research and by the Training Committee. The curriculum is approved by the Faculty of Obstetrics & Gynaecology.

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Introduction

This 1 year post CSCST Fellowship concerned with Maternal Medicine and medical problems in pregnancy is designed to dovetail with the Irish Higher Specialist Training programme in Obstetrics and Gynaecology. It takes into account the major areas of competence required by the sub-speciality in Maternal Medicine and will be supervised by the Faculty of Obstetrics and Gynaecology of the Royal College of Physicians in Ireland. The programme will deal with maternal medicine problems which predate the pregnancy and those which are diagnosed during pregnancy. Trainees will work alongside physicians to deepen understanding of the underlying medical condition. An emphasis is placed on physiological changes in pregnancy. Completion of this programme will ensure the knowledge and competencies in all areas of the curriculum, meeting international standards for best practice and allowing candidates to practice as a subspecialist in Maternal Medicine.

Specifically, once trained, trainees should:

- Work well as part of a multidisciplinary team
- Be clinically competent and confident in the management of common maternal diseases during pregnancy
- Be aware of their own clinical and professional limitations and comfortable with seeking advice from other specialists or professional groups
- Be conversant with sources of information about drugs used to treat medical conditions and their effects on the foetus or neonate
- Be familiar with radiological, haematological, biochemical and microbiological investigations and their correct interpretation in pregnant subjects
- Be able to undertake and use clinical audit
- Be able to write evidence based guidelines

The main focus of training will be in these pregnancy clinics; however, other adult medical clinics need to be attended.

A minimum of three sessions per week should be dedicated to this module, one of which should include in-patient management. The trainee should develop or update a medical/obstetric practice guideline and conduct or supervise a relevant audit.

A formal assessment will be performed prior to awarding of certification of completion of special interest module. This assessment will include the RCPI Chair, NSD and a Trainer (who provided the module rather the trainee's trainer). The trainer will be chosen by the NSD.

Certificate of completion of special interest modules will be awarded at the IOG AGM, study day, membership conferring or at CSCST graduation.

Entry Requirements

Applicants for the Post CSCST Fellowship in Maternal Medicine will have successfully completed the RCPI Higher Specialist Training programme in Obstetrics and Gynaecology within two years of the start date of the Post CSCST Fellowship programme.

Prior experience in Maternal Medicine during Obstetrics and Gynaecology training would be an advantage.

Recruitment and Selection

Post CSCST Fellowship training in Maternal Medicine will build on broad basic and early core specialist training in Obstetrics and Gynaecology. This is in line with training models internationally. Selection of candidates for Post CSCST Fellowship training in Maternal Medicine will be via a competitive recruitment process coordinated by the relevant Training Body. Recruitment will follow similar timeline where possible to HST recruitment and post will commence in July of each year (unless otherwise specified).

Duration and Organisation of Training

The Post CSCST Fellowship in Maternal Medicine is a one year training programme designed to dovetail with the Irish Higher Specialist Training programme in Obstetrics and Gynaecology. The curriculum is competency-based, however it is anticipated that the candidate will complete training within one year.

The curriculum takes into account the major areas of competence required by the subspecialist in Maternal Medicine and will be supervised by the Faculty of Obstetrics and Gynaecology of the Royal College of Physicians in Ireland. Doctors who have successfully completed the RCPI Higher Specialist Training programme in Obstetrics and Gynaecology and are within two years of completion will be deemed eligible to apply for the Post CSCST Fellowship in Maternal Medicine. Completion of this program will ensure the knowledge and competencies in all areas of the curriculum, meeting international standards for best practice and allowing candidates to practice as a subspecialist in Maternal Medicine

Training Programme

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training for Maternal Medicine in approved training hospitals. Each post within the programme will have a named trainer/educational supervisor and the programme will be under the direction of the National Specialty Director for Obstetrics and Gynaecology

Trainee Numbers

It is expected that the Post CSCST Fellowship in Maternal Medicine will be awarded to one candidate per year.

ePortfolio

The trainee will be required to keep their ePortfolio up to date and maintained throughout their Fellowship training. The ePortfolio will be countersigned as appropriate by the Trainer to confirm the satisfactory fulfilment of the required training experience and the acquisition of the competencies set out in the Curriculum. This will remain the property of the Trainee and must be produced at the end of year Evaluation meeting. At the end of year Evaluation, the ePortfolio will be examined. The results of any assessments and reports by the named trainer/educational supervisor, together with other material capable of confirming the trainee's achievements, will be reviewed.

Programme Management

- Coordination of the training programme will lie with the Medical Training Department.
- The training year will usually run from July to July in line with HST programmes
- Annual evaluations will usually take place between April and June each year
- Each trainee will be registered to the ePortfolio and will be expected to fulfil all requirements relating to the management of yearly training records
- Opportunities for audit and research may be available
- Each trainee will be issued with a training agreement on appointment to the training programme and will be required to adhere to all policies and procedures relating to Post CSCST Fellowships.

Specialty Section

Hypertension

Objectives:

- To be able to carry out appropriate assessment and management of women with chronic hypertension.
- To be able to carry out appropriate assessment and management of women with pregnancy induced hypertension, pre-eclampsia and associated complications

Knowledge

- Chronic hypertension (HT)/Pregnancy-induced hypertension/Pre-eclampsia
 - Definition / diagnosis
 - measurement of BP in pregnancy (incl. validated devices)
 - impact of pregnancy on BP
 - superimposed pre-eclampsia (PE)
 - prevalence (primary & secondary causes)
 - Pathophysiology
 - acute HT
 - chronic HT (including end organ damage)
 - Management
 - screening for common causes secondary HT
 - pregnancy management (including fetal monitoring)
 - maternal and fetal risks
 - contraception
 - preconception counselling
 - Pharmacology (incl. adverse effects)
 - anti-adrenergics (e.g. propranolol, labetalol, oxprenolol)
 - vasodilators e.g. hydralazine
 - ACE inhibitors (e.g. lisinopril)
 - Outcome
 - long term cardiovascular risks

Skills

- Take an appropriate medical history from a woman with pre-existing HT family history
 - secondary causes of chronic HT
 - complications of chronic HT
 - outcomes of previous pregnancies
 - drug therapy
- Perform an examination to screen for;
 - secondary causes of HT
 - complications of HT

- Manage a case of chronic HT including;
 - counsel regarding fetal and maternal risks (including long term health implications)
 - arrange appropriate investigations
 - institute / modify drug therapy
 - plan delivery / postnatal care
 - refer, where appropriate, for further assessment / treatment
 - plan re future pregnancy
- Ability to take an appropriate history & conduct an examination to screen for secondary causes and complications of chronic HT
- Ability to:
 - perform and interpret appropriate investigations
 - formulate, implement and where appropriate modify a multi-disciplinary management plan
 - manage antihypertensive drug therapy in antenatal & postnatal periods

 - liaise with primary care & physicians in management of HT
 - counsel women accordingly
 - maternal and fetal risks
 - safety of antihypertensive therapy
 - contraception
 - future pregnancies

Assessment and Learning

- Attendance at:
 - maternal medicine clinic
 - HT clinic
- Attendance at sessions in:
 - obstetric anaesthesia
 - ITU / HDU

Renal Disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing renal disease & renal transplants
- To be able to carry out appropriate assessment and management of women with pregnancy induced renal disease

Knowledge

- Kidney in normal pregnancy
 - anatomical changes (incl. hydronephrosis)
 - functional changes
 - interpretation renal function tests
 - fluid and electrolyte balance
- Pre-existing renal disease [CRD] (reflux nephropathy, glomerulonephritis, polycystic kidney disease)
 - pathology
 - prevalence
 - pre-pregnancy assessment
 - pregnancy management
 - outcome (including genetic implications)
- Renal transplant recipients
 - pre-pregnancy assessment
 - diagnosis rejection
 - pregnancy management
 - long term considerations
 - pharmacology (including adverse effects)
 - cyclosporine, tacrolimus
 - azothiaprine
 - corticosteroids
- Acute renal failure (ARF) in pregnancy & puerperium
 - aetiology and diagnosis (incl. differential diagnosis abnormal renal function – see 1.18)
 - management and outcome
 - indications for and principles of renal support
- Urinary Tract infection
 - differential diagnosis proteinuria

Skills

- Take an appropriate history from a woman with CRD
 - family history
 - complications of CRD
 - outcome of previous pregnancies
 - drug therapy
- Perform an examination to screen for complications of CRD
- Manage a case of CRD
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations
 - institute/modify drug treatment
 - plan delivery and postnatal care

- refer where appropriate, for further assessment / treatment
- Manage a case of renal transplant or ARF;
 - counsel regarding fetal and maternal risks
 - arrange and interpret appropriate investigations
 - refer for further assessment / treatment
- Ability to take an appropriate history and conduct an examination to assess a woman with
- CRD
- Ability to:
 - perform and interpret appropriate investigations
 - formulate list of differential diagnoses
 - formulate, implement and where appropriate modify a multi-disciplinary management plan
 - manage antihypertensive therapy in antenatal and postnatal periods
 - liaise with nephrologists and intensivists in management of acute and CRD
 - counsel women accordingly
 - maternal and fetal risks
 - inheritance
 - recurrence risks
 - contraception

Assessment and Learning

- Attendance at
 - renal medicine clinic
 - Attendance at sessions in ITU/HDU
- Developing evidence-based guidelines

Cardiac Disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing cardiac disease
- To be able to carry out, under supervision, appropriate assessment and management of women with pregnancy induced cardiac disease

Knowledge

- Heart in normal pregnancy
 - anatomical and functional changes (incl. differential diagnosis heart murmur)
 - ECG, echocardiography and assessment of cardiac function
- Congenital heart disease (HD)
 - classification (cyanotic and acyanotic) & risks
 - prevalence
 - functional impact of pregnancy
 - pre-pregnancy assessment, indications for TOP
 - pregnancy management (incl. prevention / management of endocarditis, thromboembolism, arrhythmias, cardiac failure)
 - maternal / fetal outcome (incl. genetic implications)
 - contraception
- Acquired heart disease (rheumatic HD, ischaemic HD, valve replacement, Marfan syndrome, arrhythmias)
 - functional impact of pregnancy
 - pre-pregnancy assessment
 - diagnosis (incl. differential diagnosis chest pain, palpitations pregnancy management (incl. management of CF)
 - Pharmacology (including adverse effects)
 - diuretics / antihypertensives
 - inotropes e.g. digoxin, ACEI
 - anti-arrhythmics (e.g. adenosine, mexiletine, lidocaine, procainamide)
 - anticoagulants (LMW heparin, warfarin)
- Peripartum cardiomyopathy
 - diagnosis (incl. differential diagnosis breathlessness)
 - management and outcome

Skills

- Take an appropriate history, appropriately investigate and formulate list of differential diagnoses from a woman with cardiac disease
- Perform an examination to assess cardiac disease
- Manage a case of congenital and acquired HD in pregnancy
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations
 - refer to cardiologists, haematologists, anaesthetists for further assessment /

- treatment
- plan delivery and postnatal care in liaison with cardiologists, intensivists and
- anaesthetists
- counsel re contraception & future pregnancies

Assessment and Learning

- Attendance at:
 - Adult cardiac clinic (1)
 - Echocardiography session(s):
 - Adult (1)
 - Antenatal (4)
- Attendance at sessions in:
 - Obstetric anaesthesia
 - ITU/HDU

Liver Disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing liver disease.
- To be able to carry out appropriate assessment and management of women with pregnancy induced liver disease (obstetric cholestasis and acute fatty liver of pregnancy).

Knowledge

- Liver in normal pregnancy
 - anatomical and functional changes
 - interpretation of liver function tests in pregnancy
- Pre-existing liver disease
 - pathology
 - functional impact of pregnancy
 - pregnancy management
 - maternal and fetal outcome
 - contraception
- Obstetric cholestasis (OC)
 - pathogenesis
 - prevalence
 - diagnosis (incl. differential diagnosis of itching & altered liver function)
 - pregnancy management (including fetal monitoring)
 - pharmacology (including adverse effects)
 - UDCA
 - Recurrence risks
- Acute fatty liver of pregnancy (AFLP)
 - diagnosis (incl. differential diagnosis of overlap syndromes e.g. PE)
 - management and outcome (incl. management of liver failure)
 - recurrence risks

Skills

- Take an appropriate history from a woman with liver disease:
 - complications of liver disease
 - drug therapy
- Perform an examination to assess liver disease
- Manage a case of chronic liver disease in pregnancy
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations
 - refer to hepatologists for further assessment / treatment
 - plan delivery and postnatal care in liaison with hepatologists
 - counsel re contraception
- Manage a case of OC & AFLP
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations & fetal monitoring
 - institute/modify drug treatment

refer where appropriate for further assessment / treatment
plan delivery and postnatal care
counsel re contraception

- Plan for future pregnancy
- Ability to take an appropriate history and conduct an examination to assess a woman with liver disease
- Ability to
 - perform and interpret appropriate investigations
 - formulate list of differential diagnoses
 - formulate, implement and where appropriate modify a multi-disciplinary management plan
 - liaise with hepatologists where appropriate (e.g. chronic liver disease, AFLP)
 - counsel women accordingly
 - maternal and fetal risks
 - inheritance
 - recurrence risks

Assessment and Learning

- Attendance at hepatology clinic (Minimum of 2)

Hepatitis

Objective:

- To be able to carry out appropriate assessment and management of women with hepatitis in pregnancy

Knowledge

- Virology / Epidemiology
 - hepatitis A,B,C (HAV, HBV, HCV)
 - natural history / viral dynamics
 - pathophysiology acute / chronic hepatitis
 - mode / risk of transmission
 - epidemiology of infection in pregnancy
- Screening / diagnosis
 - differential diagnosis of jaundice / abnormal LFTs
 - rationale & organization of Hepatitis B (HbsAg) screening programme
 - laboratory tests
 - serology e.g. enzyme immunoassay (EIA)
 - diagnostic e.g. Western blot, PCR
 - risk groups for HCV
 - neonatal testing
- Management
 - supportive care
 - screening for coincident infection (HBC, HCV)
- Prevention
 - HAV / HBV vaccination in pregnancy
 - Prevention perinatal infection
 - HA immunoglobulin (IG)
 - HBIG and vaccination
 - Mode of delivery / breastfeeding
- Outcome
 - HBV/HCV -related disease (cirrhosis, hepatocellular carcinoma)
- Pharmacology
 - HAV vaccine, HAIG
 - HBV vaccine, HBIG

Skills

- Take an appropriate history
- Perform an examination to assess jaundice
- Manage a case of HBV infection in pregnancy
 - arrange and interpret appropriate investigations
 - counsel regarding maternal and fetal risks,
 - strategies to reduce mother-child
 - transmission and management options
 - manage labour and delivery / CS
- Manage a case of HCV infection in pregnancy

- arrange and interpret appropriate
- investigations in high risk cases
- counsel regarding maternal and fetal risks,
- strategies to reduce mother-child
- transmission and management options
- manage labour and delivery / CS
- Counsel regarding HAV and HBV vaccination in pregnancy
- Ability to counsel women
 - before HBV/HCV screening test
 - after positive result
 - about HAV/HBV vaccination
- Ability to;
 - formulate, implement and where appropriate
 - modify a management plan in acute HAV infection
 - formulate, implement and where appropriate modify a management plan in a women with
 - HBV / HCV infection
 - liaise with hepatologists, virologists, neonatologists & GP
 - counsel HBV/HCV infected women and their partners accordingly
 - management options
 - risks of perinatal transmission and methods of prevention
 - long term outcome for mother and infant
- Ability to respect patient confidentiality

Assessment and Learning

- Attendance at sessions in
 - Virology (1)
 - Neonatology (1)
- Attendance at
 - Hepatology clinic (2)
 - MDT Obstetrics/Infectious diseases clinic

Respiratory Disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing lung disease
- To be able to carry out appropriate assessment and management of women with asthma
- To be able to carry out, under supervision, appropriate assessment and management of women with other acute lung disease

Knowledge

- Lungs in normal pregnancy
 - anatomical and functional changes
 - interpretation of chest X-ray and pulmonary function tests (incl. blood gases) in pregnancy
- Pre-existing lung disease (asthma, sarcoidosis, cystic fibrosis [CF], restrictive lung disease)
 - pathogenesis
 - prevalence
 - functional impact of pregnancy
 - pregnancy management
 - maternal and fetal outcome
- Pharmacology (incl adverse effects)
 - sympathomimetics (e.g. salbutamol, terbutaline)
 - theophyllines
 - disodium cromoglycate
 - corticosteroids

Skills

- Take an appropriate history from a woman with lung disease
lung function results
 - drug therapy
 - perform and interpret appropriate investigations formulate list of differential diagnoses
 - implement and where appropriate modify a multi-disciplinary management plan
 - liaise with respiratory physicians / intensivists where appropriate (e.g. CF, ARDS)
 - counsel women accordingly
 - maternal and fetal risks
 - safety of asthma therapy in pregnancy
 - contraception
 - future pregnancies
- Manage a case of acute/chronic lung disease in pregnancy
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations
 - institute/modify drug therapy
 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment, treatment

Assessment and Learning

- Attendance at
 - chest clinic (1)
 - CF clinic (1)
 - Pulmonary function lab (1)
- Attendance at sessions in ITU/HDU

Gastrointestinal Disease

Objectives:

- To be able to carry out appropriate assessment and management of women with pre-existing GI disease
- To be able to carry out appropriate assessment and management of women with pregnancy induced GI disease

Knowledge

- GI Tract in normal pregnancy
 - anatomical and functional changes
- Pre-existing GI disease (ulcerative colitis, Crohn's disease, coeliac disease, irritable bowel syndrome)
 - pathogenesis
 - functional impact of pregnancy
 - pregnancy management
 - maternal and fetal outcome
 - pharmacology (incl. adverse effects)
 - sulphasalazine, 5-ASA
 - corticosteroids
 - bulking agents, lactulose
 - anti-spasmodics
- Pregnancy-related GI disease (hyperemesis gravidarum [HG], reflux oesophagitis, constipation)
 - pathogenesis
 - prevalence
 - diagnosis (incl. differential diagnosis of vomiting and role of endoscopy)
 - pregnancy management (incl. parenteral nutrition & steroids)
 - Pharmacology (incl. adverse effects)
 - anti-emetics e.g. cyclizine, metoclopramide,
 - antacids (e.g. magnesium trisilicate)
 - H2-receptor antagonists (e.g. ranitidine)

Skills

- Take an appropriate history, examination and manage a case of chronic GI disease in pregnancy and pregnancy-induced GI disease
 - counsel re fetal & maternal risks
 - arrange and interpret appropriate investigations
 - institute/modify drug therapy
 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment / treatment
- Manage a case of appendicitis in pregnancy
 - counsel re fetal & maternal risks
 - arrange and interpret appropriate investigations
 - refer, for further assessment / surgery
- Perform and interpret appropriate investigations, formulate list of differential diagnoses

Assessment and Learning

- Attendance at
 - GI clinic (Minimum of 1)
 - Developing evidence-based guidelines

Diabetes and Endocrine

Objectives:

- To be able to carry out appropriate assessment and management of women with pre-gestational and gestational diabetes and other endocrine disorders
- To be able to carry out, under supervision, appropriate assessment and management of women with pre-gestational diabetic complications and other endocrine disorders

Knowledge

- Glucose homeostasis and endocrine function (thyroid, pituitary and adrenal) in pregnancy
- Pre-existing diabetes
 - pathogenesis & classification
 - prevalence
 - complications (metabolic, retinopathy, nephropathy, neuropathy, vascular disease)
 - pre-pregnancy assessment
 - functional impact of pregnancy in uncomplicated and complicated diabetes
 - pregnancy management
 - pre-pregnancy care
 - maternal monitoring (glycaemic control)
 - fetal monitoring
 - intrapartum care
 - maternal and fetal outcome (incl. fetal abnormality, macrosomia, FGR)
 - pharmacology (incl adverse effects)
 - insulin
 - oral hypoglycaemics (e.g. metformin)
 - contraception
- Gestational diabetes (GDM)
 - pathophysiology and diagnosis
 - prevalence
 - pregnancy management (incl. diet, insulin & oral hypoglycaemic agents)
 - maternal and fetal outcome
 - long term risks & management
 - contraception
- Thyroid Disease
 - Hypo- and hyper-thyroidism
 - Interpretation of TFTs
 - Medication (L-thyroxine , carbimazole PTU)
- Pituitary and Adrenal diseases
 - Pathophysiology (hyperprolactinaemia, Cushing's Syndrome, hypopituitarism, Addison's disease, Diabetes Insipidus)
 - Pharmacology
- Pregnancy-related endocrine disease
- Pathophysiology (Post-partum thyroiditis, Diabetes Insipidus)
- Outcome

- Pregnancy outcomes for above

Skills

- Take an appropriate history from a woman with pre-existing diabetes
 - diabetic control
 - presence / severity of complications
 - drug therapy
- Perform an examination to screen for diabetic complications
- Manage a case of pre-gestational diabetes
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations and monitoring
 - institute/modify drug therapy (including management of hypoglycemia)
 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment, treatment (e.g. in women with complications)
- Manage a case of GDM
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations & fetal monitoring
 - refer to dietician for further assessment
 - institute/modify drug therapy, where appropriate
 - delivery and postnatal care
- Manage cases of endocrine disorders (all listed)

Assessment and Learning

- Attendance at
 - diabetic clinics (min 6 – 2 obstetric and 4 endocrine)
- Attendance at sessions in;
 - Neonates
 - ITU/HDU

Neurological Disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing neurological disease
- To be able to carry out appropriate assessment and management of women with pregnancy-induced neurological disease
- To be able to carry out appropriate assessment and management of women with epilepsy and migraine

Knowledge

- Neurological function in pregnancy
- Pre-existing neurological disease (epilepsy, migraine, multiple sclerosis, myasthenia gravis, myotonic dystrophy, idiopathic intracranial hypertension, previous CVA)
 - Pathogenesis
 - prevalence
 - functional impact of pregnancy
- pregnancy management including;
 - pre-pregnancy care
 - prenatal diagnosis
 - peripartum care
 - maternal and fetal outcome
 - pharmacology (incl adverse effects)
 - phenytoin, valproic acid, carbamazepine, lamotrigine
 - propranolol, tricyclic antidepressants
 - acetazolamide
 - pyridostigmine
- Contraception
- Acute / pregnancy-induced neurological disease (neuropathies –Bell’s palsy, carpal tunnel syndrome)
 - Pathogenesis stroke (incl. cerebrovascular disease, cerebral venous thrombosis, SAH), neuropathies
 - diagnosis (incl. differential diagnosis headache, convulsions and altered consciousness & cerebral imaging, electrophysiology)
 - management (incl. corticosteroids)
 - maternal and fetal outcome

Skills

- Take an appropriate history from a woman with neurological disease
 - previous / current therapy
 - previous procedures / operations
 - drug therapy
- Perform an examination in a woman with neurological disease.
- Manage a case of chronic neurological disease in pregnancy (including previous stroke)
 - counsel regarding fetal and maternal risks (including risks therapy)
 - arrange and interpret appropriate investigations
 - institute/modify drug therapy

- plan delivery and postnatal care
 - refer, where appropriate, for further assessment, treatment
- Ability to take an appropriate history and conduct an examination to assess a woman with neurological disease
- Ability to
 - perform and interpret appropriate investigations
 - formulate list of differential diagnoses
 - formulate, implement and where appropriate modify a multi-disciplinary management plan
 - liaise with neurologists, physiotherapists, intensivists where appropriate (e.g. CF, ARDS)
 - counsel women accordingly
 - maternal and fetal risks
 - risks of anti-epileptic therapies
 - postnatal care
 - contraception
 - long term outcome

Assessment and Learning

- Attendance at
 - obstetric medicine clinic
 - neurology clinic (min 2; 1 Epilepsy, 1 general neurology)
- Attendance at sessions in ITU/HDU

Connective Tissue Disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing connective tissue disease (CTD)
- To be able to carry out appropriate assessment and management of women with pre-existing uncomplicated APS

Knowledge

- Systemic lupus erythematosus (SLE) and antiphospholipid syndrome (APS) pathogenesis
 - prevalence
 - diagnosis (incl. classification criteria [Sapporo, American Rheumatoid Association] , laboratory investigations)
 - functional impact of pregnancy management incl;
 - pre-pregnancy care
 - maternal and fetal monitoring
 - maternal and fetal outcome
 - pharmacology (incl adverse effects)
 - corticosteroids, azothiaprine
 - aspirin, LMW heparin
 - contraception
 - outcome (incl. management of neonatal lupus)
- Other CTDs (incl. scleroderma, rheumatoid arthritis, mixed CTD)
 - pathogenesis
 - diagnosis
 - functional impact of pregnancy
 - Management incl;
 - pre-pregnancy care
 - maternal and fetal monitoring
 - maternal and fetal outcome
 - pharmacology (incl adverse effects)
 - aspirin, NSAIDs
 - corticosteroids
 - chloroquine, sulphasalazine, azothiaprine, penicillamine
 - contraception

Skills

- Take an appropriate history from a woman with CTD
 - previous obstetric history
 - drug therapy
- Manage cases of SLE and APS in pregnancy;
 - counsel re fetal and maternal risks (incl. risks therapy)
 - arrange and interpret appropriate investigations (incl. fetal monitoring)
 - institute/modify drug therapy
 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment, treatment
- Manage a case of other CTD in pregnancy

- counsel re fetal and maternal risks (incl. risks therapy)
- arrange and interpret appropriate investigations (incl. fetal monitoring)
 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment, treatment
- Ability to take an appropriate history and conduct an examination to assess a woman with neurological disease

- Ability to:
 - perform and interpret appropriate investigations
 - formulate list of differential diagnoses
 - formulate, implement and where appropriate modify a multi-disciplinary management plan
 - liaise with immunologists, physicians, physiotherapists, s where appropriate
 - counsel women accordingly
 - maternal and fetal risks
 - contraception
 - long term outcome
 - future pregnancies

Assessment and Learning

- Obstetric Medical Clinic

Haematological disease/Thromboembolic disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing haematological disease
- To be able to carry out appropriate assessment and management of women with pregnancy-induced haematological disease

Knowledge

- Haematological function in pregnancy
 - red cell / plasma volume changes during pregnancy
 - changes in coagulation system during pregnancy
 - interpretation of haematological / clotting tests
- Anaemia
 - pathogenesis (iron, folate & vitamin B12 deficiency)
 - prevalence
 - diagnosis
 - maternal and fetal outcome
 - pharmacology (including adverse effects)
 - iron (oral & parenteral), folic acid, vitamin B12
- Haemoglobinopathies (Sickle cell & Thalassemia syndromes)
 - genetic basis and pathogenesis
 - prevalence
 - prenatal diagnosis, fetal monitoring
 - functional impact of pregnancy
 - maternal and fetal outcome
 - management (incl. vaso-occlusive crisis in SCD, haematinic & transfusion therapy)
- Thrombocytopenia
 - prevalence
 - diagnosis (incl. differential diagnosis thrombocytopenia)
 - pathogenesis (incl. ITP, HUS and TTP)
 - maternal and fetal outcome
 - management (incl. role of splenectomy)
 - pharmacology (including adverse effects)
 - corticosteroids, azathiaprine
 - iv immunoglobulin G
- Congenital coagulation disorders
 - genetic basis / pathogenesis vWD, haemophilia
 - prevalence
 - prenatal diagnosis
 - diagnosis / maternal monitoring (clotting factor levels / vWF antigen activity, vWF:RCo)
 - maternal and fetal outcome
 - management (including pre-pregnancy counselling and intrapartum care)
 - pharmacology (including adverse effects)
 - DDAVP
 - Recombinant and plasma derived factor concentrate

- Disseminated intravascular coagulation [DIC]
 - aetiology and pathogenesis
 - diagnosis
 - management
 - resuscitation with volume replacement
 - platelet, fresh frozen plasma
- Thromboembolic disease
- VTE
 - Pathogenesis
 - Manifestations
 - Diagnosis
 - Prophylaxis/treatment
 - Pharmacology
 - Outcome
 - Family planning
- Thrombophilia
 - Congenital and acquired
 - Diagnosis
 - Management

Skills

- Take an appropriate history from a woman with haematological disease.
 - diagnosis
 - drug therapy
- Perform an examination to assess anaemia / thrombocytopenia/VTE
- Manage a case of anaemia during pregnancy;
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations
 - institute/modify drug therapy (incl. where appropriate parenteral iron, blood transfusion)
 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment / treatment
- Manage cases of sickle cell and thalassaemia syndromes;
 - counsel regarding fetal and maternal risks / prenatal diagnosis
 - arrange and interpret appropriate investigations (including fetal monitoring in SCD)
 - institute/modify therapy (incl. vaso-occlusive crisis in SCD, blood transfusion)
 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment / treatment
- Manage a case of immune thrombocytopenic purpura in pregnancy
 - counsel re fetal and maternal risks
 - arrange and interpret appropriate investigations

- Institute/modify therapy
- plan delivery and postnatal care
- refer, where appropriate, for further assessment / treatment
- Manage a case of VTE in pregnancy
- Manage a case of thrombophilia
- Ability to take an appropriate history and conduct an examination to assess a woman with haematological disease
- Ability to:
 - perform and interpret appropriate investigations
 - formulate list of differential diagnoses
 - formulate, implement and where appropriate modify a multi-disciplinary management plan
 - liaise with haematologists, geneticists where appropriate
 - counsel women accordingly
 - maternal and fetal risks
 - prenatal diagnosis
 - contraception
 - long term outcome
 - future pregnancies
- Manage a case of congenital coagulation disorder in pregnancy
 - counsel re fetal and maternal risks / prenatal diagnosis
 - arrange and interpret appropriate investigations
 - institute/modify therapy

 - plan delivery and postnatal care
 - refer, where appropriate, for further assessment / treatment
- Manage a case of DIC in pregnancy
 - identify and treat underlying cause
 - arrange and interpret appropriate investigations
 - institute/modify resuscitative and replacement therapy

Assessment and Learning

- Attendance at:
 - Haematology clinic/ obstetric medicine

Skin Disease

Objectives:

- To be able to carry out, under supervision, appropriate assessment and management of women with pre-existing skin disease
- To be able to carry out appropriate assessment and management of women with pregnancy-induced skin disease

Knowledge

- Physiological skin changes of pregnancy
 - Skin changes
 - Nail / hair changes
- Pre-existing skin disease (eczema, psoriasis, acne)
 - pathogenesis
 - prevalence
 - functional impact of pregnancy
 - pregnancy / postnatal management
 - pharmacology (including adverse effects)
 - emollients
 - topical corticosteroids
 - topical benzoyl peroxide
- Pregnancy-induced skin disease (pemphigoid gestationis, polymorphic eruption of pregnancy [PEP], prurigo of pregnancy, pruritic folliculitis of pregnancy)
 - pathogenesis prevalence
 - diagnosis (incl. skin histological and immunofluorescent findings) maternal and fetal outcome
 - management (including plasmapheresis, immunosuppressants) pharmacology (including adverse effects)
 - topical / systemic corticosteroids
 - antihistamines (e.g. diphenhydramine)
 - recurrence risks

Skills

- Take an appropriate history from a woman with skin disease
 - diagnosis
 - drug therapy
- Perform an examination in a woman with skin disease.
- Manage a case of chronic skin disease in pregnancy
 - arrange and interpret appropriate investigations
 - institute/modify drug therapy
 - refer, where appropriate, for further assessment, treatment
- Manage a case of pregnancy-induced skin disease
 - arrange and interpret appropriate maternal & fetal investigations
 - counsel re maternal and fetal risks
 - institute/modify drug therapy
 - plan pregnancy, delivery and postnatal care

- refer for further assessment / treatment
- Ability to take an appropriate history and conduct an examination to assess a woman with skin disease
- Ability to:
 - perform and interpret appropriate investigations
 - formulate list of differential diagnoses
 - formulate, implement and where appropriate modify a management plan
 - liaise with dermatologists appropriate
 - counsel women accordingly
 - maternal and fetal risks
 - safety of topical therapies in pregnancy
 - recurrence risks

Assessment and Learning

- Attendance at
 - Obstetric Medicine Clinic

Medical Disorders on the Labour Ward

Objectives:

- To be able carry out appropriate intrapartum and immediate postpartum assessment and management of women with medical disorders

Knowledge

- Pathophysiology
 - Including the effect of labour and delivery on the following diseases;
 - diabetes
 - cardiac/respiratory abnormalities
 - haemoglobinopathies
 - thrombotic / haemostatic abnormalities
 - epilepsy
 - severe pre-eclampsia / eclampsia
 - renal disease
 - hypertension
 - HIV / sepsis
- Management
 - maternal monitoring
 - blood glucose
 - respiratory function (incl. respiratory rate, SaO₂, , blood gases)
 - cardiovascular function (incl. blood pressure, heart rate, cardiac output)
 - renal function (incl. urine output, creatinine)
 - analgesia and anesthesia
- Pharmacology
 - effects of drugs used to treat above conditions on course and outcome of labour
 - effects of drugs used in management of labour (e.g. oxytocin, syntometrine) on above conditions
 - effects of analgesics and anaesthetics on the above conditions

Skills

- Take and appropriate history and perform an examination to assess medical disorder
- Manage a woman with a medical disorder in labour incl. ;
 - monitor blood glucose and maintain euglycaemia using intravenous glucose and insulin
 - monitor cardiorespiratory function and maintain oxygenation and cardiac output
 - Monitor abnormal blood clotting and respond accordingly, including therapeutic intervention
 - monitor blood pressure and, where appropriate, treat hypertension (see 1.1)
 - monitor renal function and respond where appropriate by adjusting fluid balance or with drugs
 - use anticonvulsants effectively
- Manage a case of sickle cell disease during labour:
 - counsel regarding management and risks
 - optimize hydration, oxygenation, analgesia
 - manage sickle crisis (incl. fluids, oxygen, antibiotics and analgesics)

- Manage a case of HIV in labour:
 - plan mode of delivery
 - institute iv zidovudine therapy
- Ability to take an appropriate history and conduct an appropriate examination in a woman with a medical disorder

- Ability to:
 - formulate, implement and where appropriate modify a medical management plan for labour and delivery
 - liaise with physicians, anaesthetists, neonatologists
 - counsel women and their partners accordingly
 - management options in labour
 - risks of medical therapies

Assessment and Learning

- Attendance at;
 - Medical clinics
- Mini-CEX
- Case-Based Discussion

Addiction in Pregnancy

Objectives:

- To reach a diagnosis and institute management of women presenting with addiction in pregnancy

Knowledge

- Pharmacology
 - Methadone
 - Heroin
 - Cocaine
 - C₂H₅OH
 - Benzodiazapines
- Manage
 - Stabilisation and Management
 - Concurrent ID issues
- Liaise with MDT

Skills

- Take an appropriate history from a woman with Addiction in Pregnancy
 - diagnosis
 - drug therapy
- Perform an examination in a woman with Addiction in Pregnancy
- Manage a case of Addiction in Pregnancy
 - arrange and interpret appropriate investigations
 - institute/modify drug therapy
 - refer, where appropriate, for further assessment, treatment
 - arrange and interpret appropriate maternal & fetal investigations
 - counsel re maternal and fetal risks
 - institute/modify drug therapy
 - plan pregnancy, delivery and postnatal care
 - refer for further assessment / treatment
- Ability to take an appropriate history and conduct an examination to assess a woman with Addiction in Pregnancy
- Ability to:
 - perform and interpret appropriate investigations
 - formulate, implement and where appropriate modify a management plan
 - counsel women accordingly

Assessment and Learning

- Attend obstetric addiction clinic
- Attend addiction clinic sessions

Documentation of Minimum Requirements for Training

- These are the minimum number of cases you are asked to document as part of your training. It is recommended you seek opportunities to attain a higher level of exposure as part of your self-directed learning and development of expertise.
- You should expect the demands of your post to exceed the minimum required number of cases documented for training.
- If you are having difficulty meeting a particular requirement, please contact your specialty coordinator.

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Number
Section 1 - Training Plan				
Personal Goals Plan (Copy of agreed Training Plan for your current training year signed by both Trainee & Trainer)	Required	1	Training Programme	Form 052
On Call Rota (where appropriate)	Required	1	Training Programme	Form 045
Weekly Timetable (Sample Weekly Timetable for Post/Clinical Attachment)	Required	1	Training Programme	Form 064
Section 2 – Educational Activities				
Teaching Basic Practical Skills	Required	1	Training Programme	Form 013
Section 3 – Training Activities				
Maternal Medicine Sessions (min 3 per week) to include				
Minimum of 1 in-patient management session per week	Required	40	Training Programme	Form 001
Clinic Attendance				
Maternal Medicine clinic	Required	40	Training Programme	Form 001
Haematology (including bleeding disorders clinic and thrombosis clinic)	Required	2	Training Programme	Form 001

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Number
Hypertension Clinic	Required	4	Training Programme	Form 001
Renal Medicine Clinic	Required	4	Training Programme	Form 001
Adult Cardiac Clinic	Required	4	Training Programme	Form 001
Echocardiogram Clinics to include:				
Adult	Required	1	Training Programme	Form 001
Antenatal	Required	4	Training Programme	Form 001
Hepatology Clinic	Required	2	Training Programme	Form 001
Virology Clinic	Required	1	Training Programme	Form 001
Neonatal Clinic	Required	1	Training Programme	Form 001
Chest Clinic	Required	1	Training Programme	Form 001
Cystic Fibrosis Clinic	Required	1	Training Programme	Form 001
Pulmonary Function Lab	Required	1	Training Programme	Form 001
Microbiology Lab	Required	1	Training Programme	Form 001
Radiology session	Required	1	Training Programme	Form 001
General psychiatric clinical or perinatal mental health clinic	Required	1	Training Programme	Form 001
GI Clinic	Required	1	Training Programme	Form 001
Diabetic Clinic: Minimum of 10 to include:				
Obstetric Clinic	Required	6	Training Programme	Form 001

Curriculum Requirement	Required/Desirable	Minimum Requirement	Reporting Period	Form Number
Endocrine Clinic	Required	4	Training Programme	Form 001
Neurology Clinic: minimum of 2 to include:				
Epilepsy	Required	1	Training Programme	Form 001
General Neurology	Required	1	Training Programme	Form 001
Ward Rounds				
Obstetric Anaesthesia	Required	10	Training Programme	Form 002
ICU/HDU (min of one calendar week)	Required	20	Training Programme	Form 002
Psychiatric MDT	Required	1	Training Programme	Form 002
Section 4 - Assessments				
Case-based discussions	Required	4	Training Programme	Form 020
Attendance at Clinics as outlined above	Required	1	Training Programme	Form 001
Mini CEX	Desirable	1	Training Programme	Form 023
Quarterly Assessments	Required	4	Training Programme	Form 092
End-of-Post/End-of-Year Assessments	Required	1	Training Programme	Form 092