

Labour and Delivery



**INSTITUTE OF  
OBSTETRICIANS &  
GYNAECOLOGISTS**

ROYAL COLLEGE OF  
PHYSICIANS OF IRELAND

Post CSCST TRAINING IN

# **OBSTETRICS AND GYNAECOLOGY**

## **Labour and Delivery**



**This curriculum of training in the management of Labour and Delivery under the specialty of Obstetrics and Gynaecology was developed in 2017 and undergoes an annual review by the Subject Matter Expert Declan Keane / Mike Robson, Dr Ann O’Shaughnessy, Head of Education, Innovation & Research and by the Training Committee. The curriculum is approved by the Faculty of Obstetrics & Gynaecology.**

Version	Date Published	Last Edited By	Version Comments
0.0	01/07/2017	Ann Coughlan	New Curriculum

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This 1 year Post CSCST Fellowship concerned with the management of Labour and Delivery 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 subspecialist in the management of Labour and Delivery and will be supervised by the faculty of Obstetrics and Gynaecology of the Royal College of Physicians in Ireland. 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 the management of Labour and Delivery

## **Entry Requirements**

Applicants for the Post CSCST Fellowship in Labour and Delivery 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 the management of Labour and Delivery during Obstetrics and Gynaecology training would be an advantage.

## **Recruitment and Selection**

Post CSCST Fellowship training in the management of Labour and Delivery 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 the management of Labour and Delivery 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 Labour and Delivery 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 Labour and Delivery 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 Labour and Delivery. 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 Labour and Delivery

## **Training Programme**

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training for the Post CSCST Fellowship in Labour and Delivery 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 in Obstetrics and Gynaecology

## **Trainee Numbers**

It is expected that the Post CSCST Fellowship in Labour and Delivery 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**

## Labour Management

**Overview:** This module is divided into two main areas:

- Labour Ward Skills
- Labour Ward Organisation

### Labour Ward Skills

- Management of normal labour including 3<sup>rd</sup> stage
- Management of abnormal labour
- Management of preterm labour
- Delivery skills
  - Vaginal delivery
  - Vacuum delivery including Ventouse, and Kiwi
  - Forceps delivery – non-rotational forceps
  - Management of multiple pregnancies
  - Caesarean section
  
  - Interpretation of CTGs
- Management of labour ward emergencies
  - Shoulder dystocia
  - Maternal collapse
  - Severe Pre-eclampsia
  - Haemorrhage
  - Genital track trauma
  - Resuscitation of both mother and neonate
- Management of medical disorders
  - Diabetes
  - Haematological conditions
  - Pre-eclampsia
  - Renal disease
  - Hypertension
  - Infectious disease
  - Addiction
  - Sepsis
- Management of HDU:
  - Understand anaesthetic/analgesic components
  - Pathophysiology Invasive monitoring

### Labour Ward Organisation

- Knowledge of staffing structures, multidisciplinary relationships, equipment needs
- Understand triage, staff allocation, role of guidelines/audit
- Communication – team working and leadership skills
- Training/assessment/skills & drills
- Governance and risk management

## Organisation of the Labour Ward

### Objectives:

- To understand the organisation / staffing structure / equipment needs of the Labour Ward
- To be expert in triaging clinical cases and allocating staff appropriately
- To be proficient in writing evidence-based guidelines and performing audit relevant to the Labour Ward
- To be able to analyse and understand Labour Ward workload and statistics
- To be able to implement and manage change effectively

### Requirements

Prior to commencing module, the following courses must be completed:

- Leadership Skills RCPI Course
- Teaching Skills RCPI Course
- Communication Skills RCPI Course
- MOET Course (or similar)

This SIM requires 4 sessions per week:

- Must attend ICU/HDU sessions, neonatal sessions
- Develop a guideline for the labour ward
- Attend Risk Management Committee meeting
- Conduct/supervise a labour ward audit
- Attend/run a skills and drills training session

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 than 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.

### Knowledge

#### Organisation

- staffing structures
- equipment needs
- relationship with neonatologists
- relationship with anaesthetists
- relationship with users

#### Understand

- how to triage clinical cases
- how to allocate staff



- the role of guidelines
- audit (incl. collection / analysis of LW workload) and how this influences practice

**Skills**

Co-ordinate the clinical running of the LW at a daily level including;

- staff allocation
- appropriate triaging of clinical cases

Perform clinical audit relevant to Labour Ward

- define standard based on evidence
- prepare project & collate data
- re-audit and close audit loop
- formulate policy
- implement change based on audit results

Develop and implement a clinical guideline relevant to Labour Ward:

- purpose and scope
- identify and classify evidence
- formulate recommendations
- identify auditable standards
- introduce into practice

Interpret LW workload / statistics

Ability to:

- co-ordinate the LW appropriately and communicate effectively all plans and decisions
- to team members
- write evidence-based guidelines (relevant to LW)
  - perform audit (relevant to LW)
  - review LW workload and statistics
  - implement change

**Assessment and Learning**

Observation of and discussion with senior medical / midwifery staff

- Leadership courses RCPI

Attendance at:

Labour Ward/Obstetric Divisional Meeting

- Guidelines group
- Audit meeting
- Perinatal mortality meetings
- National Perinatal Epidemiology Centre
- HST Leadership in Clinical Practice course
- Formal assessment with special interest module assigned trainer

## Normal Labour

### Objectives:

- To understand the physiology and mechanisms of normal labour and delivery
- To understand, support and respect the role of the midwife as an expert in normality
- To be able to actively promote the ethos of normality
- To recognise and avoid negative influences, and avoid unnecessary interventions

### Knowledge

- The role of the midwife
- Physiology and mechanisms of normal labour and delivery
- Intermittent auscultation
- How to avoid unnecessary interventions
- The impact of the birth environment

### Skills

- Manage a normal labour and delivery
- Perform intermittent auscultation
- Ability to:
  - understand and actively promote normality
  - avoid unnecessary interventions
  - respect and support midwifery staff

### Assessment and learning

- Log book of vaginal deliveries

## Failure to Progress in Labour

### Objectives:

- To understand the physiology of normal labour and the factors that can adversely affect progress
- To be able to carry out appropriate assessment and management of women with failure to progress in first stage and second stage of labour

### Knowledge

- Anatomy / Physiology
  - Anatomy of pelvis / fetal skull
  - Regulation of myometrial contractility
  - Stages of labour
  - Active management and labour
- Pathophysiology
- Incl. causes and consequences of:
  - poor progress in labour:
  - inefficient uterine action
  - malposition
  - relative / absolute
  
  - cephalopelvic disproportion
  - fetal acid base status
  - postpartum uterine atony
- Management
  - maternal support
  - amniotomy
  - mobilization / position
  - analgesia
  - oxytocin
  - manual rotation
  - instrumental vaginal delivery
  - caesarean section
- Pharmacology (incl. adverse effects)
  - oxytocin

### Skills

- Take an appropriate history and perform an examination to assess progress in labour
- Manage a case of failure to progress in the first stage of labour;
  - perform exam to identify cause e.g. inefficient uterine activity / malposition / cephalopelvic disproportion (relative and absolute)

- counsel regarding management
- institute appropriate management (incl. delivery where appropriate)
- Manage a case of failure to progress in the second stage of labour;
  - perform exam to identify cause
  - counsel regarding management
  - institute appropriate management
- Perform:
  - Ventouse (rotational and non-rotational) and Kiwi
  - forceps – outlet and mid-cavity
  - caesarean section
- Ability to perform and interpret abdominal/pelvic examination
  - formulate, implement and where appropriate modify a management plan
  - Liaise, where appropriate, with anaesthetists, neonatologists
  - counsel women and their partners accordingly
    - management
    - maternal and foetal risks

### Assessment and Learning

- Appropriate postgraduate courses e.g. MOET or equivalent
- Attend sessions in
  - obstetric anaesthesia
  - neonatology

## Non-Reassuring Foetal Status in Labour

### Objectives:

- To be able to carry out appropriate assessment and management of fetal acidaemia in labour
- To understand the management, complications and outcomes of hypoxic ischaemic encephalopathy

### Knowledge

- Pathophysiology
  - regulation of foetal heart rate
  - foetal acid base balance
  - hypoxic ischaemic encephalopathy (HIE)
- Foetal monitoring in labour
  - Incl. principles, interpretation and predictive value of foetal:
    - meconium
    - cardiotocography (CTG)
    - ECG
    - pulse oximetry
    - pH, blood gases and lactate
    - oligohydramnios
- Management
  - position / oxygen therapy
  - acute tocolysis
  - emergency operative delivery
- Pharmacology (incl. adverse effects)
  - terbutaline / ritodrine
- Outcome
  - neonatal complications of HIE (Incl. seizures, abnormal neurological function, organ failure)
  - long term health implications of HIE (incl. cerebral palsy)

### Skills

- Take an appropriate history
  - Manage a case of suspected and confirmed fetal acidaemia in labour:
  - arrange appropriate investigations
  - to confirm foetal acidaemia
  - counsel regarding foetal / neonatal risks and management options

- institute, where appropriate, in-utero resuscitation / emergency delivery
- Perform:
  - CTG interpretation
  - fetal blood sampling
  - ultrasound assessment of amniotic fluid volume
- Ability to take an appropriate history
- Ability to
  - perform and interpret investigations to assess fetal status in labour
    - formulate, implement and where appropriate modify a management plan
    - liaise, where appropriate, with anaesthetists / neonatologists
    - counsel women and their partners accordingly
    - maternal and fetal risks
      - management options
      - long term health implications for infant

### **Assessment and Learning**

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses e.g. MOET or equivalent
- Attendance at sessions in obstetric anaesthesia and neonatology
- Attendance at neonatal follow up clinics
- Log of experience & competence
- Mini-CEX (Mini clinical examination)
- OSATs(Objective structured assessment of technical skill)
- CBD (Case-based discussion)

## Multiple Pregnancy and Malpresentation

### Objectives:

- To be able to carry out appropriate assessment and management of women with multiple pregnancy in labour
- To be able to carry out appropriate assessment and management of women with abnormal lies / presentations diagnosed in labour

### Knowledge

- Epidemiology / etiology
  - incidence
  - predisposing factors
- Intrapartum care in twins
  - physiology of labour
  - fetal monitoring
  - inter-twin interval
  - effects of chorionicity
  - effects of prematurity
- Diagnosis / management
  - clinical exam
  - ultrasound
  - risks / benefits of caesarean section in:
    - breech presentation
    - transverse / oblique lie
    - twin and higher order multiple pregnancy
    - brow presentation
    - face presentation
- Breech delivery
  - manoeuvres (assisted breech delivery and breech extraction)
  - complications (incl. problems with after coming head)
- Twin delivery
  - ECV for second twin
  - ARM / oxytocin in second stage
  - operative delivery second twin

### Skills

- Take an appropriate history
- Perform and interpret investigations to confirm fetal lie in labour
- Manage preterm / complex twin pregnancy in labour:

- arrange and interpret fetal monitoring
- counsel regarding management
- institute appropriate management
- Manage a case of breech presentation in labour:
  - arrange and interpret fetal monitoring
  - counsel regarding management incl. risks/benefits of CS
  - institute appropriate management
- Manage a case of transverse lie in labour:
  - counsel regarding management
  - institute appropriate management
- Perform:
  - ECV in labour (incl. breech, transverse lie and second twin)
  - vaginal breech delivery
  - internal podalic version
- Ability to
  - formulate, implement and where appropriate, modify a management plan
  - liaise, where appropriate, with anaesthetists / neonatologists
  - counsel women and their partners accordingly
    - maternal and foetal risks
    - management options incl. mode of delivery

### Assessment and Learning

- Observation of and discussion with senior medical staff
- Suitable postgraduate courses e.g. MOET or equivalent
- Attendance at sessions in obstetric anaesthesia and neonatology



## Complex Antepartum Haemorrhage (APH)

### Objectives:

- To be able to carry out appropriate assessment and management of women presenting with complex antepartum haemorrhage

### Knowledge

- Pathophysiology
  - placental abruption
  - placenta praevia
  - other causes (incl vasa praevia)
  - morbidly adherent placenta
- Epidemiology
  - incidence
  - risk factors
- Screening / diagnosis
  - risk factors (incl. previous CS)
  - ultrasound determination of placental site (incl. transvaginal ultrasound)
- Management
  - maternal resuscitation
  - clinical & laboratory assessment of;
    - haemorrhage
    - coagulation
    - assessment of fetal wellbeing
    - strategy for monitoring
    - appropriate use of blood and blood products
- DIC

### Skills

- Maternal resuscitation and stabilisation
- Take an appropriate history from a woman with APH
- Perform an examination to assess the cause and consequences of APH
- Perform and interpret appropriate investigations to assess cause and consequences of APH
- Perform an ultrasound examination to assess;
  - placental site
  - morphology (incl. retroplacental haemorrhage & abnormal implantation)
- Manage a case of APH including
  - arrange and interpret appropriate laboratory investigations
  - plan mode and timing of delivery

- appropriate use of blood and blood products
- management of DIC
- Manage a case of suspected morbidly adherent placenta
  - arrange appropriate investigations
  - plan CS
- Ability to rapidly assess hypovolaemia and institute resuscitative measures
- Work effectively as part of a multidisciplinary team
- Ability to formulate, implement and where appropriate modify a management plan
- Liaise with anaesthetists, haematologists and radiologists where appropriate
- Counsel women and their partners accordingly
  - Maternal and foetal risks
  - recurrence risks

### **Assessment and Learning**

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses
- Attendance at sessions in Anaesthesia / ITU

## Preterm Labour

### Objectives:

- To be able to carry out appropriate assessment and management of women with preterm labour / PPRM
- To be able to carry out appropriate assessment and management of women with chorioamnionitis
- To understand the management, complications and outcome of the preterm neonate

### Knowledge

- Pathophysiology / Epidemiology
  - preterm labour (PTL)
  - preterm premature rupture of membranes (PPROM)
  - acute chorioamnionitis (incl microbiology)
  - epidemiology of PTL/PPROM/chorioamnionitis
- Diagnosis
  - risk factors
  - clinical exam
  - cervical length (CL)
  - vaginal infection
- Management
  - in-utero transfer (principles & process)
  - tocolysis, corticosteroid & antibiotic administration
  - mode of delivery
  - cervical cerclage (indications/risks/benefits)
  - strategy for monitoring in PPRM (incl. lab investigations, ultrasound)
- Diagnosis / Management – chorioamnionitis
  - differential diagnosis
  - acute abdominal pain in pregnancy,
  - pyrexia
    - investigations (blood, cultures, US)
    - antibiotic therapy
  - fetal risks (incl. fetal death, preterm labour)
  - maternal risks (incl. gram negative sepsis, acute renal failure)
- Pharmacology ( Incl. adverse effects);
  - corticosteroids (for lung maturity)
  - sympathomimetics, nifedipine, atosiban, indomethacin ,antibiotics
- Outcome
  - neonatal complications of preterm birth (incl.. jaundice, RDS, ROP, IVH, PFC)
  - long term health implications of preterm birth (incl. CLD, neurodevelopmental delay, CP)

### Skills

- Take an appropriate history from a woman presenting with preterm labour / PPRM /chorioamnionitis
- Manage a case of PPRM
  - confirm diagnosis
  - arrange and interpret investigations & fetal monitoring
  - institute / modify antibiotic therapy

- Manage a case of PTL
  - assess likelihood of preterm birth (incl. where appropriate measurement of CL & fFN)
  - arrange and interpret appropriate investigations & fetal monitoring
  - institute corticosteroid ± tocolysis
  - consider place of cervical cerclage
  - arrange in-utero transfer
  - plan delivery
- Manage a case of acute chorioamnionitis;
  - arrange and interpret appropriate investigations
  - counsel regarding maternal and fetal risks
  - institute and where appropriate, modify antibiotic therapy
  - refer, where appropriate, for further assessment / treatment
  - mode / timing of delivery (incl., where appropriate, termination of pregnancy )
- Perform cervical cerclage (elective / emergency)
- Ability to take an appropriate history
- Ability to formulate, implement and where appropriate modify a management plan
- Arrange in-utero transfer and communicate with all parties effectively
- Liaise with neonatologists / microbiologists
- Counsel women and their partners accordingly
  - maternal risks
  - foetal and neonatal risks (incl. risks pulmonary hypoplasia side effects of therapy)
  - long term health implications for infant
    - recurrence risks and management plan for future pregnancy

### Assessment and Learning

- Appropriate postgraduate courses
- Attendance at sessions in
  - Neonatology
- Attendance at
  - MDT – perinatal meeting

## Shoulder Dystocia

### Objectives:

- To be able to carry out appropriate assessment and management of women with a previous history of shoulder dystocia
- To be able to carry out appropriate assessment and management of women with shoulder dystocia
- To understand the management, complications and outcomes of neonates with birth trauma

### Knowledge

- Epidemiology / etiology
  - incidence
  - predisposing factors
  - risks of recurrence
- Management
  - clinical drill procedures e.g. HELPERR
- Outcome
  - neonatal complications of birth trauma (incl. IVH (intra-ventricular haemorrhage), bone fractures, brachial plexus injury, HIE(hypoxia-induced encephalopathy))
  - Management of complications
  - long term outcome

### Skills

- Take an appropriate history
- Manage a case of shoulder dystocia
  - institute and document appropriate management
  - perform:
    - McRobert's manoeuvres and supra-pubic pressure
    - internal rotation of shoulders
    - removal of posterior arm
- Manage a case of previous shoulder dystocia;
  - Assess recurrence risk
  - Arrange, where appropriate, appropriate investigations
  - counsel regarding maternal / fetal risks
  - plan mode / timing of delivery
- Ability to
  - formulate, implement and document a management plan for shoulder dystocia
  - perform manoeuvres to achieve delivery in shoulder dystocia

- liaise, where appropriate, with anaesthetists / neonatologists
- counsel women and their partners accordingly
  - maternal and fetal risks
  - long term health implications of birth trauma
  - recurrence risks and management plan for future pregnancy

### **Assessment and Learning**

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses e.g. MOET or equivalent
- Attachments in neonatology
- Attendance at neonatal follow up clinics
- Discussion of cases at risk management committee

## Genital Tract Trauma

### Objectives:

- To be able to carry out appropriate assessment and management of a women with a third or fourth degree perineal tear
- To be able to carry out appropriate assessment and management of a women with a uterine rupture

### Knowledge

- Anatomy / Physiology
  - perineum / pelvic floor
  - anal sphincter function
- Epidemiology / aetiology
  - incidence
  - predisposing factors
- Diagnosis / management
  - clinical examination
  - ultrasound (endoanal) and rectal
  - physiology studies
  - anal sphincter
  - cervix / uterus
  - postpartum haemorrhage
- Outcome
  - long term health implications (incl. pain, incontinence)
  - implications for future pregnancy

### Skills

- Take an appropriate history
- Manage a case of third / fourth degree perineal tear
  - assess type of tear
  - counsel regarding management
  - institute appropriate management (incl. surgical repair)
  - plan appropriate follow up
- Manage a case of prior 3rd/4th degree perineal tear:
  - arrange and interpret appropriate investigations (incl. endoanal ultrasound)
  - counsel regarding management options
  - plan mode of delivery
- Manage a case of uterine rupture:
  - assess maternal and foetal condition
  - counsel regarding management

- institute appropriate management (incl. emergency CS, repair of uterus)
- Perform:
  - repair of 3rd / 4th degree perineal tear
  - repair of uterine rupture
  - hysterectomy
- Ability to
  - formulate, implement and where appropriate, modify a management plan
  - liaise, where appropriate, with gynaecologists, surgeons
  - arrange appropriate follow up
  - counsel women and their partners accordingly:
    - maternal and foetal risks
    - long term health implications
    - recurrence risks and
    - management plan for future pregnancy

### **Assessment and Learning**

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses e.g.
  - 3rd/4th degree tear course RCPI
- Attendance at pelvic floor clinic



## Postpartum Haemorrhage and other Third Stage Problems

### Objectives:

- To be able to carry out appropriate assessment and management of a women with a massive postpartum haemorrhage (PPH)
- To be able to recognise and manage complications of the third stage of labour

### Knowledge

- Anatomy
  - pelvic anatomy and blood supply
- Epidemiology / aetiology (PPH)
  - incidence
  - predisposing factors (incl. adherent placenta, uterine inversion)
- Laboratory methods
  - diagnosis / monitoring DIC
  - cross-matching
- Management massive PPH
  - maternal resuscitation (incl. use of:
    - crystalloid / colloid iv fluids
    - blood and blood products
  - medical management (see below)
  - surgical management
    - intrauterine balloon
    - brace suture
    - internal iliac ligation
    - hysterectomy
  - interventional radiology (vascular balloons and coils)
- Pharmacology
  - Incl. adverse effects of drugs used in PPH
  - oxytocin, ergometrine
    - 15 methyl prostaglandin F2
    - misoprostol
    - recombinant fVIIa

### Skills

- Manage a case of massive PPH
  - assess blood loss and consequences
  - undertake resuscitation

- ascertain cause of haemorrhage
- arrange and interpret appropriate investigations
- counsel regarding management options
- institute /modify appropriate medical and/or
- surgical management for
  - uterine atony
  - inverted uterus
  - adherent placenta
  - uterine rupture
  
- Perform:
  - manual removal of placenta
  - correction of uterine inversion
  - (manual and hydrostatic replacement)
  - insertion of uterine balloon catheter
  - insertion of brace suture
  - internal iliac ligation (may not see) / hysterectomy (under supervision) or refer, where appropriate, for same
- Ability to:
  - rapidly assess extent of haemorrhage and institute appropriate resuscitative measures and
  - formulate, implement and where appropriate, modify a management plan in a fluent and coherent manner demonstrating leadership skills
  - liaise, where appropriate, with gynaecologists, haematologists and radiologists.:
  - counsel women and their partners accordingly
    - management options and maternal risks
    - recurrence risks and management plan for future
  
  - pregnancy debrief family and staff

### Assessment and Learning

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses e.g. MOET or equivalent
- Attendance at sessions in
  - Anaesthesia
  - Intensive care
  
- Log of experience & competence
- Drills

## Anaesthesia and Analgesia

### Objectives:

- To understand the methods, indications for and complications of anaesthesia
- To understand the methods, indications for and complications of systemic analgesia and sedation

### Knowledge

- Anatomy/Physiology
  - spinal cord
  - innervation of pelvic organs
  - pain
- Management
  - pain management during labour
    - non-pharmacological techniques
    - inhalational analgesia
    - systemic analgesia (opioids)
  - regional analgesia and anaesthesia (incl. techniques and complications)
    - pudendal
    - epidural
    - spinal
  - general anaesthesia (incl. techniques and complications)
  - analgesia and anaesthesia in high risk women (incl. hypertensive disease, cardiac disease & FGR)
- Pharmacology
  - opioid analgesics
  - local anaesthetics
  - general anaesthetics
  - phenylephrine / ephedrine
- Outcome
  - effects of neuraxial anaesthesia on
  - labour outcome
  - temperature
  - foetal wellbeing

### Skills

- Counsel women about the different forms of analgesia and anaesthesia (incl. efficacy and risks)
- Counsel women and their partners about efficacy and risks of different methods of anaesthesia for assisted vaginal delivery & CS
- Ability to;
  - formulate, implement and where appropriate modify analgesic / anaesthetic

- management plan
- liaise with anaesthetists
- discuss alternatives to conventional analgesia in a non-judgmental, professional manner

### **Assessment and learning**

- Observation of and discussion with senior medical staff
- Attendance at sessions in:
  - Anaesthesia
  - Attend obstetric perioperative medicine clinic
- Log of experience & competence

## Caesarean section

### Objectives:

- To be able to carry out appropriate assessment and management of a women with a previous caesarean section (CS)
- To plan and perform caesarean section in special circumstances
- To manage the operative complications of caesarean section

### Knowledge

- Epidemiology
  - Risks of CS
  - visceral damage
  - infection
  - venous thrombosis
  - Risks associated with previous CS
  - uterine rupture
  - abnormal placentation
  - Vaginal birth after CS (VBAC)
  - success rates
  - complication rates
- Diagnosis
  - ultrasound determination of placental site
- Management
  - CS
    - surgical technique (incl. abdominal wall & uterine entry/closure)
    - prevention of complications (incl. thrombosis, infection)
    - Impact of following conditions;
      - placenta praevia
      - morbidly adherent placenta
      - foetal anomaly
      - extreme prematurity
      - prior abdominal surgery
      - extensive fibroids
- Complications:
  - Extension of incision
  - Visceral damage
- VBAC - incl.
  - use of oxytocics

- role of induction of labour
- foetal monitoring

**Skills**

- Take an appropriate history
- Manage a case of previous CS;
  - arrange appropriate investigations and interpret results
  - counsel regarding management options and foetal and maternal risks
  - plan mode / timing of delivery
- Perform CS using the appropriate surgical technique in the following circumstances;
  - major placental praevia
  - morbidly adherent placenta
  - foetal anomaly likely to cause dystocia
  - severe obesity BMI > 35
  - extreme prematurity
  - extensive prior abdominal surgery
  - extensive fibroids
- Manage complications of CS (under supervision where appropriate):
  - extension of uterine incision
  - haemorrhage
  - visceral damage
  - wound dehiscence
  - infection
  - venous thrombosis
- Ability to ;
  - counsel women with a prior CS about options (CS vs VBAC)
- Ability to;
  - counsel women and their partners about the risks of emergency and elective CS
  - formulate, implement and where appropriate modify a management plan for a women undergoing CS
  - liaise with anaesthetists, haematologists, neonatologists and radiologists where appropriate
- Ability to recognise womens' expectations and anxieties with respect to medical intervention
- Ability to communicate in a non-judgmental manner with women and partners.

**Assessment and Learning**

- Observation of and discussion with senior medical staff
- appropriate postgraduate courses e.g. MOET or equivalent
- Attachment in
  - Anaesthesia
- Log of experience & competence

- OSATS
- O&G Ireland Guidelines

## Resuscitation

### Objectives:

- To be able to carry out appropriate assessment and management of maternal collapse (including cardiac arrest)
- To be able to carry out appropriate assessment and management of the depressed neonate

### Knowledge

- Pathophysiology
  - hypovolaemia
  - pulmonary embolism
  - amniotic fluid embolism
  - primary cardiac event
  - trauma
  - cerebrovascular event
  - sepsis
  - electrocution
  - neonatal depression
- Epidemiology
  - maternal collapse (causes / risk factors)
  - neonatal depression
- Management
  - maternal resuscitation
    - respiratory management (incl. basic airway management, indications for intubation, ventilation)
    - circulatory management (incl. cardiac massage, defibrillation)
    - fluid management
      - indications for perimortem CS
      - principles neonatal resuscitation
        - respiratory depression / apnoea
        - bradycardia / cardiac arrest
        - meconium aspiration
- Pharmacology
  - oxygen
  - epinephrine
  - sodium bicarbonate
  - Atropine



**Skills**

- Manage a case of maternal collapse
  - ascertain cause of collapse
  - undertake resuscitation (as part of a multidisciplinary team)
  - Institute/modify appropriate medical management for;
    - pulmonary embolism
    - amniotic fluid embolism
    - cardiac arrhythmia
    - sepsis
  - arrange appropriate investigations
    - perform (under supervision) perimortem CS or refer, where appropriate, for same
- Perform
  - neonatal resuscitation
    - mask ventilation
    - cardiac massage
- Ability to:
  - rapidly assess maternal collapse and institute resuscitative measures in both women  
and neonates
  - work effectively as part of a multidisciplinary team showing leadership where appropriate
  - formulate, implement and where appropriate modify a management plan in maternal  
collapse / cardiac arrest
  - liaise with physicians, anaesthetists, neonatologists
- debrief family and staff

**Assessment and Learning**

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses e.g. MOET or equivalent
- Attendance at sessions in
  - Anaesthesia
  - Neonatology

## 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, SaO<sub>2</sub>, , blood gases)
    - cardiovascular function (incl. blood pressure, heart rate, cardiac output)
    - renal function (incl. urine output, creatinine)
    - analgesia and anaesthesia
- 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)
    - 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

- monitor renal function and respond where appropriate by adjusting fluid balance or with drugs
- use anticonvulsants effectively
- Manage a case of HIV in labour;
  - plan mode of delivery
  - institute iv zidovudine therapy
- Ability to:
  - formulate, implement and where appropriate modify a medical management plan for labour and delivery
  - liaise with physicians, anaesthetists
  - counsel women and their partners accordingly
    - management options in labour
    - risks of medical therapies

### Assessment and Learning

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses e.g. Medical Disorders
- Attendance at
  - Medical clinics
  - Diabetes clinics
  - Infectious Diseases/Obstetric Clinics
  - Addiction/Obstetric Clinics

## Infection

### Objectives:

- To be able to carry out appropriate assessment and intrapartum management of women with blood borne viral infection
- To be able to carry out appropriate assessment and intrapartum management of women with genital herpes
- To be able to carry out appropriate assessment and intrapartum management of women at risk of Group B haemolytic streptococcal (GBS) infection

### Knowledge

- Virology /Microbiology/ Epidemiology
  - HIV1 & 2 /Hepatitis B /Hepatitis C /HSV 1&2
  - GBS (risk factors, colonisation rates)
  - pathophysiology of the above
  - risk of transmission
  - epidemiology of infection in pregnancy
- Management
  - strategies to reduce mother-child transmission (incl. anti-retroviral therapy, acyclovir, intrapartum antibiotic prophylaxis (IAP), mode of delivery, feeding)
  - differential diagnosis of genital ulcers
  - conduct of labour / delivery
  - indications for CS
  - neonatal management – prophylaxis, testing
- Pharmacology (incl. adverse effects)
  - zidovudine
  - other HIV antiretrovirals
  - acyclovir
  - antibiotics
  - HBV vaccine / immunoglobulin
- Outcome
  - neonatal infection (diagnosis / complications)
  - long term outcome -chronic HIV /Hep B /Hep C Infection
    - sequelae of congenital HSV infection
    - sequelae of neonatal Group B streptococcal disease (early and late onset disease)
- Knowledge of Health and Safety requirements for staff in case of needle stick injury

**Skills**

- Take an appropriate history
- Manage intrapartum cases of HIV, HBV and HCV infection;
  - counsel regarding maternal and foetal risks, strategies to reduce mother-child transmission and management options
  - institute, where appropriate, anti-retroviral therapy
  - manage labour and delivery / CS
- Manage a case of HSV infection
  - arrange and interpret appropriate investigations
  - institute symptomatic treatment and acyclovir for active disease
  - counsel regarding maternal and foetal risks
  - institute, where appropriate, prophylactic acyclovir
  - plan time / mode of delivery
- Manage a case of GBS infection in pregnancy;
  - arrange and interpret appropriate investigations
  - counsel regarding maternal and foetal risks
  - institute IAP
- Ability to take an appropriate history
- Ability to:
  - formulate, implement and where appropriate modify a management plan
  - liaise with HIV expert, virologist, microbiologist, multidisciplinary team, neonatologists & GP
  - counsel women and their partners accordingly
    - management options
    - risks of perinatal transmission and methods of prevention
    - risks / benefits of anti-retroviral / acyclovir / IAP therapy
    - long term outcome for mother and infant
- Ability to respect patient confidentiality

**Assessment and Learning**

- Observation of and discussion with senior medical staff
- Appropriate postgraduate courses e.g. Maternal medicine
- Attendance at sessions in neonatology
- Log of experience & competence
- Mini-CEX

## Intensive Care

### Objectives:

- To understand the organization and role of high dependency and intensive care
- To understand the indications for and methods of invasive monitoring
- To understand the management of organ failure

### Knowledge

- Structure and organization of:
  - high dependency care
  - intensive care
  - role of outreach teams
  - indications for high dependency and intensive care in obstetrics
- Management
  - Management methods of invasive monitoring
    - oxygenation / acid base
    - arterial pressure
    - cardiac output, preload and contractility
    - organ failure (incl. principles/techniques of supportive therapy)
    - respiratory failure
    - cardiac failure
    - renal failure
    - hepatic failure
    - coagulation failure

### Skills

- Take an appropriate history and perform an examination to assess critically ill woman
- Manage a woman with organ failure:
  - undertake resuscitation
  - arrange and interpret appropriate investigations to confirm diagnosis / cause and monitor organ function
  - arrange transfer to HDU / ITU where appropriate
  - liaise with peri-operative medicine
  - Perform (under supervision) or refer, where appropriate, for same
    - insertion of CVP line
    - endotracheal intubation
    - insertion arterial line / PA catheter (optional)
- Ability to:
  - formulate, implement and where appropriate modify a management plan including transfer to DU/ITU
  - liaise with intensivists, physicians, anaesthetists, neonatologists
  - counsel women and their partners accordingly:

- management options, including therapeutic interventions
  - maternal and fetal risks
  - debrief family and staff
  - Observation of and discussion with senior medical staff
- Appropriate postgraduate courses - MOET or equivalent

### Assessment and Learning

- Attendance at sessions in:
  - Anaesthesia
  - Intensive Care
- Log management of HDU Patients on labour ward

## Neonatology

### Objectives:

- To be proficient at neonatal resuscitation and assess acid-base balance
- To understand and be able to counsel about gestation related outcomes
- To understand the intra partum factors that influence neonatal outcome

### Knowledge

- Understand
  - the principles of basic and advanced neonatal resuscitation
  - conditions requiring admission to NICU
  - the implications of prematurity
  - intrapartum factors that influence neonatal outcome
  - acid-base balance
- Outcome
  - neonatal complications of HIE (incl. seizures, abnormal neurological function, organ failure)
  - gestation related outcomes
  - long term health implications of HIE (incl. cerebral palsy)

### Skills

- Ability to:
  - assess a neonate at birth
  - perform basic neonatal life support
  - assist in advanced neonatal life support
  - interpret cord gases and assess acid-base balance
- Be able to follow the admission process of a neonate to NICU
  - counsel parents about the outcomes of prematurity
  - counsel parents about the outcomes of HIE

### Assessment and Learning

- Attendance at:
  - resuscitations
  - NICU ward rounds
  - neonatal follow-up clinics
- Log book requirements:
  - Document NICU Rounds
  - Number of sessions
  - Interesting cases



## Communication, Team Working and Leadership Skills

### Objectives:

- Demonstrate effective communication with colleagues
- Demonstrate good working relationships with colleagues
- Demonstrate the ability to work in clinical teams and have the necessary leadership skills

### Knowledge

- Communication
  - how to structure a staff interview to identify:
    - concerns and priorities
    - expectations
    - understanding and acceptance
- breaking bad news
- joint decision making
- Team working
- roles and responsibilities of team members
- factors that influence & inhibit team development
- ways of improving team working including:
  - objective setting & planning
  - motivation and demotivation
  - organisation
  - respect
  - contribution of mentoring and supervision
  - Leadership
  - qualities and behaviours
- styles
- implementing change /change management

### Skills

- Be able to communicate both verbally and in writing with colleagues
- Ability to break bad news appropriately and support distress
- Ability to:
  - work effectively within a multidisciplinary team
  - lead a clinical team
  - respect others' opinions
  - deal with difficult colleagues
- Be able to recognise and positively influence a dysfunctional team

### Assessment and Learning

- Mastering Communication Course
- HST Leadership in Clinical Practice Course



## Training / Assessment / Skills and Drills

### Objectives:

- To understand different methods of training and learning
- Demonstrate the ability to assess competencies / set objectives / deal with difficult learners
  - To understand and use different methods of assessment, and feed back effectively
- To utilise and deliver skills training, scenario training and fire drills appropriately

### Knowledge

- Training
  - how to assess basic competencies
  - Deficiencies
  - Strengths
  - Understanding of level of skills
  - how to set objectives
  - how to support and facilitate training
  - understand different methods of adult learning
  - how to deal with difficult learners
- Assessment
  - formal assessment of individuals using different assessment tools
    - OSATS
    - DOPS
    - Mini-CEX
    - Case based discussions
  - assessment of team performance
  - feedback techniques eg Pendleton's rules
- Skills & Drills
  - understand the differences between skills training and scenario training how to set up, deliver and assess each of the above

### Skills

- Be able to assess basic competencies , set objectives and assess against these objectives
- Be able to deal with difficult learners
- Be proficient in the use of the various assessment tools
- Ability to:
  - use different assessment tools
  - provide and receive feedback effectively
- Ability to:
  - understand different methods of training and learning
  - set up and run skills training, scenario training and fire drills
  - know which method to use depending on training session objective
- Lead training sessions / emergency drills on LW (Joint obstetrics and anaesthetics course)

### **Assessment and Learning**

- Logbook requirements
- Teaching skills course

## Clinical Governance and Risk Management

### Objectives:

- Understand and demonstrate appropriate knowledge and skills in relation to CG and risk management

### Knowledge

- Clinical Governance
  - organizational framework at local, SHA and national levels
  - standards e.g. O&G Ireland Guidelines, NICE, RCOG guidelines
  - clinical effectiveness
  - principles of evidence based practice
  - grades of recommendation
  - guidelines and integrated care pathways
  - formulation
  - advantages and disadvantages
  - clinical audit
  - patient / user involvement
  - types of clinical trial/evidence classification
- Risk management
  - incidents/near miss reporting
  - methods of analysing incidents including root cause analysis
  - complaints management
  - litigation and claims management
- Appraisal and revalidation
  - principles
  - process
- Risk management on LW
  - principles of risk management
  - critical incident reporting

### Skills

- Participate in risk management
  - investigate a critical incident by reviewing the case and taking appropriate statements
  - write a time line
- perform a root cause analysis
  - assess risk
  - formulate recommendations
  - write a response/report
  - feed back to staff & families
- Investigate and respond to a complaint
- Perform appraisal

- Sit on risk management committee
- Ability to practice evidence based medicine
- Ability to report and investigate a critical incident
- Ability to respond to a complaint in a focused and constructive manner.
- Ability to perform appraisal
- Ability to lead a multi-disciplinary team

### **Assessment and Learning**

- Observation of and discussion with senior medical / midwifery staff and clinical governance team
- Attendance at risk management meetings

## Documentation of Minimum Requirements for Training

Curriculum Requirement	Required/ Desirable	Minimum Requirement	Reporting Period	Form Name
<b>Section 1 - Training Plan</b>				
<b>Personal Goals Plan</b> (Copy of agreed Training Plan for the module signed by both Trainee & Trainer)	Required	1	Specialty Module	Form 052
<b>Weekly Timetable</b> (Sample Weekly Timetable for module)	Required	1	Specialty Module	Form 045
<b>On Call Rota</b> (where appropriate)	Required	1	Specialty Module	Form 064
<b>Section 2 - Training Activities</b>				
<b>Labour Ward sessions (min 4 per week) to include:</b>				
ICU/HDU sessions	Required	10	Specialty Module	Form 002
Neonatal sessions	Required	4	Specialty Module	Form 002
Obstetric anaesthesia	Required	10	Specialty Module	Form 002
<b>Clinic attendance</b>				
Pelvic Floor Clinic	Required	4	Specialty Module	Form 001
Obstetric/Perioperative medicine clinic	Required	4	Specialty Module	Form 001
Infectious Diseases/Obstetric clinic	Required	8	Specialty Module	Form 001
Addiction/Obstetric clinic	Required	8	Specialty Module	Form 001
<b>Ward Rounds</b>				
NICU Round	Required	10	Specialty Module	Form 002
<b>Procedures/Practical Skills/Surgical Skills</b>				
Vaginal deliveries (including instrumental deliveries)	Required	40	Specialty Module	Form 004
Postpartum Haemorrhage and 3 <sup>rd</sup> stage problems	Required	10	Specialty Module	Form 004
Manage HDU patient	Required	10	Specialty Module	Form 004
<b>Section 3 - Educational Activities</b>				

<b>Mandatory Courses</b>				
HST Leadership in Clinical Practice (year 3+)	Required	1	Specialty Module	Form 006
3 <sup>rd</sup> /4 <sup>th</sup> Degree Tear course	Required	1	Specialty Module	Form 006
<b>Curriculum Requirement</b>	<b>Required/ Desirable</b>	<b>Minimum Requirement</b>	<b>Reporting Period</b>	<b>Form Name</b>
Maternal medicine course	Required	1	Specialty Module	Form 006
Communication Skills course	Required	1	Specialty Module	Form 006
Teaching skills course	Required	1	Specialty Module	Form 006
<b>In-house activities</b>				
Develop a guideline for labour ward	Required	1	Specialty Module	Form 011
Attendance at risk management committee meeting	Required	4	Specialty Module	Form 011
Attend/run a skills & drills training session	Required	1	Specialty Module	Form 011
Attendance at a labour ward/obstetric divisional meeting	Required	4	Specialty Module	Form 011
<b>Audit activities</b>				
Conduct/supervise labour ward audit	Required	2	Specialty Module	Form 135
<b>Section 4 - Assessments</b>				
<b>OSATS</b>				
Caesarian Section	Required	10	Specialty Module	Form 027
<b>Mini-CEX</b>				
Infection	Required	1	Specialty Module	Form 023
<b>Case-based Discussion</b>				
Non-reassuring fetal status in labour	Required	2	Specialty Module	Form 020