

Curriculum Guide for Maternal and Fetal Medicine (MFM) Subspecialty Training (SST)

1 What is MFM subspecialty training about?

Subspecialty training in Fetal and Maternal medicine will produce a doctor who is capable of providing the highest level of care for women with pregnancies potentially, or actually, affected by the full range of medical and/or fetal problems. They will lead and co-ordinate care for these women, in association with a wide range of other general and maternity care providers. They will be leaders for these services at local, regional and potentially even national level, with key roles in education, training, innovation, quality management and improvement, research and governance, pertinent to high risk pregnancy services.

Subspecialists should be excellent communicators who can co-operatively reach complex and often difficult decisions with women and their families, and other healthcare providers. For this, they need an extensive knowledge base, a logical mind, objectivity, empathy and advanced listening skills. They need to be non-judgemental, free from bias, and be able to negotiate and compromise. They should be kind, but decisive when called upon, reflective and supportive. They need to have a high level of technical expertise to safely and effectively perform procedures required of them in their subspecialty post.

During training, doctors should be exposed to and participate in a wide variety of scenarios as well as attending educational events to support their learning in this area. The ability to reflect on and learn when projects have gone well or indeed if they have failed are all skills that should be developed and consolidated as training progresses.

There are two main components to subspecialty training. First is the clinical knowledge and skills required for an MFM subspecialist, described by the advanced obstetric capabilities in practice (AOCiPs). The practical procedures with which a subspecialty trainee needs to become proficient lie within these clinical AOCiPs. The second element comprises generic, non-technical skills, in the areas relevant to MFM subspecialty training: 'Clinical governance', 'Teaching experience', 'Research', 'Leadership and management experience' and 'Presentations and publications'.

Satisfactory sign off to complete MFM subspecialty training will require the Subspecialty Training Programme Supervisor (STPS) to make decisions on the level of supervision required for each AOCiP and if this and the final subspecialty assessment is satisfactory, subspecialty accreditation will be awarded. More detail is provided in the programme of assessment section of the curriculum and in the online Curriculum training resource here.



2 Design of MFM subspecialty training

Maternal and Fetal Medicine (MFM) subspecialty training (SST) is a three-year programme (two years if the trainee has research exemption), made up of 12 advanced obstetric clinical capabilities in practice (AOCiPs). Nine of these are shared with the obstetric advanced training skills modules, and three are specific for MFM subspecialty training. These are listed in Table 1 and the details of each MFM CiP can be found here. Advanced Obstetric Capabilities in Practice (AOCiPs) 6 and 11 have been omitted from this subspecialty list because, although they feature in two of the obstetric ATSMs, they do not feature in MFM subspecialty training. Table 2 shows how the 14 AOCiPs are shared between the obstetric ATSMs and MFM subspecialty training. A doctor who has completed AOCiPs as part of ATSM training, prior to commencing MFM subspecialty training, will not need to repeat these AOCiPs. The content of any one AOCiP is the same, be it part of ATSM training or MFM subspecialty training, and the competency level required by the completion of training (level 5) is the same. AOCiPs 12, 13 and 14, can only be completed as part of an accredited subspecialty training programme, and take the obstetric trainee to the highest level of training in fetal and maternal medicine, and clinical genetics.

Table 1 – Professional Identity and Capabilities in Practice for MFM

DEVELOP	ING THE OBSTETRICIAN & GYNAECOLOGIST: SST-MFM
PROFESSI	ONAL IDENTITY: CLINICAL EXPERT
AOCiP1	The doctor uses ultrasound to screen for and manage pregnancy complications, other than fetal abnormalities.
AOCiP2	The doctor confirms fetal normality and manages the key conditions targeted by the Fetal Anomaly Screening Programme (FASP).
AOCiP3	The doctor is able to manage a wide range of common conditions affecting the fetus.
AOCiP4	The doctor describes, obtains informed consent for and performs amniocentesis.
AOCiP5	The doctor is able to recognise and manage common medical conditions in the pregnant woman.
AOCiP7	The doctor manages intrapartum medical complications and pre-existing conditions.
AOCiP8	The doctor has obstetric medicine skills covering a wide range of maternal medical conditions.

AOCiP9	The doctor recognises key intrapartum scenarios and manages them using the necessary technical and non-technical skills.
AOCiP10	The doctor uses ultrasound to optimise outcomes during labour and the immediate puerperium.
AOCiP12	The doctor is able to lead in providing care to women with pregnancies complicated by the full range of fetal concerns.
AOCiP13	The doctor can independently manage, in conjunction with specialists from other disciplines, pregnancies complicated by the widest range and most complex of maternal medicine conditions.
AOCiP14	The doctor can apply knowledge of clinical and molecular genetics to the management of complex pregnancy.

Table 2

	Advanced Obstetric Capabilities in Practice	FM ATSM	HRP ATSM	Obs Med ATSM	Ad LW ATSM	LW lead ATSM	MFM SST 2019
AOCiP1	The doctor uses ultrasound to screen for, and manage, pregnancy complications, other than fetal abnormality						
AOCiP2	The doctor confirms fetal normality and manages the key conditions targeted by the Fetal Anomaly Screening Programme (FASP)						
AOCiP3	The doctor is able to manage a wide range of common conditions affecting the fetus						
AOCiP4	The doctor describes, obtains informed consent for and performs amniocentesis						
AOCiP5	The doctor is able to recognise and manage common medical conditions in the pregnant woman						
AOCiP6	The doctor safely manages pregnancy in women with mental health, social and lifestyle factors						



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AOCiP7	The doctor manages intrapartum medical complications and pre- existing conditions			
AOCiP8	The doctor has obstetric medicine skills covering a wide range of maternal medical conditions			
AOCiP9	The doctor recognises key intrapartum scenarios and manages them using the necessary technical and non-technical skills			
AOCiP10	The doctor uses ultrasound to optimise outcomes during labour and the immediate puerperium			
AOCiP11	The doctor takes a key role of leadership, management and patient safety on labour ward			
AOCiP12	The doctor is able to lead in providing care to women with pregnancies complicated by the full range of fetal concerns			
AOCiP13	The doctor can independently manage, in conjunction with specialists from other disciplines, pregnancies complicated by the widest range and most complex of maternal medical conditions			
AOCiP14	The doctor can apply knowledge of clinical and molecular genetics to the management of complex pregnancy			

No new curriculum items or competencies have been added in this 2019 version. A few competencies have been removed from the previous curriculum which are no longer applicable to MFM subspecialty practice in 2019. Guidance on ultrasound training is available <a href="https://doi.org/10.2019/nc.10.



Table 3: Mapping the previous MFM subspecialty curriculum to the 2019 AOCiPs

MFM Subspecialty Curriculum 2007 Modules	New MFM SST curriculum capabilities in practice (AOCiP)
Module 1: Medical Complications of	AOCiP 5 : The doctor is able to recognise and manage common medical conditions in the pregnant woman
Pregnancy	AOCiP 8: The doctor has obstetric medicine skills covering a wide range of maternal medical conditions
	AOCiP 13: The doctor can independently manage, in conjunction with specialists from other disciplines, pregnancies complicated by the widest range and most complex of maternal medical conditions
Module 2: Genetics	AOCiP 14: The doctor can apply knowledge of clinical and molecular genetics to the management of complex pregnancy
Module 3: Structural Fetal Abnormalities	AOCiP 2: the doctor confirms fetal normality and manages the key conditions targeted by the Fetal Anomaly Screening Programme
	AOCiP 3: the doctor is able to manage a wide range of common conditions affecting the fetus
	AOCiP 4: the doctor describes, obtains consent for, and performs amniocentesis
	AOCiP 12: The doctor is able to lead in providing care to women with pregnancies complicated by the full range of fetal concerns
Module 4: Antenatal Complications	AOCiP 1: the doctor uses ultrasound to screen for, and manage, pregnancy complications other than fetal abnormality
Module 5: Intrapartum Complications	AOCiP 7 : the doctor manages intrapartum medical complications
	AOCiP 9: The doctor recognises key intrapartum scenarios and manages them using the necessary technical and non-technical skills
	AOCiP 10 : the doctor uses ultrasound to optimise outcomes during labour and the immediate puerperium

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Module 6: Infectious Diseases	AOCiP 8 : The doctor has obstetric medicine skills covering a wide range of maternal medical conditions
	AOCiP 12: The doctor is able to lead in providing care to women with pregnancies complicated by the full range of fetal concerns

3 The Capabilities in Practice explained

Each AOCiP is made up of the following components;

- a) A headline statement of expectation (high level learning outcome) describing in a generic way what a doctor can do once they have successfully achieved the AOCiP.
- b) Key skills and descriptors which give further detail to this statement and give guidance on how the trainee can be judged against the expectations of the AOCiP.
- c) Procedures which need to be learned and mastered as part of the AOCiP.
- d) Knowledge criteria needed by the trainee to provide a foundation for the skills and practices covered by the AOCiP.

a) High-level learning outcome

The high-level learning outcome of the AOCiP describes in a generic way what a doctor can do once they have successfully completed the AOCiP. A competency level must be proposed by a trainee for each of these high-level learning outcomes using the entrustability scale listed in Table 5 at Subspecialty Training Programme Supervisor (STPS) educational meetings, and prior to the subspecialty assessment. The STPS will make their own judgement based primarily on the evidence presented by the trainee, and this may be aligned with the trainee opinion, or may differ.

The 12 mandatory AOCiPs making up the MFM SST are listed below. When considering whether progress is being made in each AOCiP it is both the trainee's wider skills as a medical professional and those relating to knowledge and processes of leadership and teamwork which need to be assessed in the round, as well as clinical competence.

To help trainees and trainers assess progress in subspecialty training, there is a Statement of Expectations for trainees for each AOCiP (Table 4). It offers guidance as to what constitutes acceptable progress in that AOCiP.

Table 4

Meeting	A trainee meeting expectations will have the appropriate knowledge base
expectations	and the ultrasound skills to diagnose and manage fetal growth restriction,
AOCiP1	abnormalities of liquor volume, growth discordancy in multiple pregnancies,

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	risk of late miscarriage and preterm birth, abnormal placental location and
	red cell alloimmunisation, in the context of the wider maternity network, including subspecialty services.
Meeting expectations AOCiP2	A trainee meeting expectations will be confident in recognising normality, and potential fetal structural abnormality, using ultrasound, and in diagnosing and providing care for the key fetal conditions targeted by the 18+0 to 21+6 FASP scan, with or without the help of subspecialty services, where appropriate.
Meeting expectations AOCiP3	A trainee meeting expectations will be able to diagnose manage pregnancies complicated by other fetal problems, including fetal infections and fetal hydrops, not formally screened for by the FASP scan, in conjunction with tertiary subspecialty services where appropriate.
Meeting expectations AOCiP4	A trainee meeting expectations will know when amniocentesis should be offered, be able to counsel fully about invasive testing and the alternatives, be able to perform the procedure when requested and recognise which cases should be performed by a subspecialist.
Meeting expectations AOCiP5	A trainee meeting expectations will able to safely plan care in pregnancies complicated by medical problems in conjunction with the woman. They will be familiar with the necessary investigations and be able to interpret the results. They should know when to seek the input from colleagues in other specialties and when to refer for tertiary care.
Meeting expectations AOCiP7	The trainee meeting expectations will be conversant with the medical problems commonly encountered in pregnant women and will know how to manage acute presentations and labour complicated by these conditions. They will be able to work effectively with their medical colleagues to minimise the effect of pregnancy on the underlying medical conditions. They will be able to review the woman's progress through pregnancy and individualise her intrapartum management plan. They will be able to respond appropriately to a medical emergency in the pregnant woman.
Meeting expectations AOCiP8	The trainee meeting expectations will be able to manage the woman's medical condition, in the context of pregnancy, from preconception to puerperium. They will be able to plan care of mother and fetus to optimise outcome. They will work effectively as one member of the multi-disciplinary team.
Meeting expectations AOCiP9	The trainee meeting expectations will be able to safely manage the obstetric challenges of labour. They will be able to apply a variety of techniques to assist delivery and assess appropriately whether or not to intervene. They



	will be able to effectively use the staff and resources available to them on delivery suite. They will be able to support the woman and her family through adverse outcomes and review the management to identify good practice and lessons to be learnt. They will communicate their plans to the woman, involving her in the decision making process.
Meeting expectations AOCiP10	The trainee meeting expectations uses ultrasound to make delivery safer. They will be confident in identifying the woman who has a late fetal loss. They will use the findings effectively in the plan for labour and delivery.
Meeting expectations AOCiP12	A trainee meeting expectations can screen for, diagnose and manage the full range of fetal medicine complications, whatever the level of complexity, in association with allied tertiary specialties and other fetal medicine services able to provide the highest level interventions.
Meeting expectations AOCiP13	A trainee meeting expectations can lead and provide the highest level of prenatal, antenatal, intrapartum and postnatal care for women with the full range of pre-existing medical problems, and those who develop obstetric or non-obstetric related medical conditions during the pregnancy and puerperium, in association with other medical specialists and tertiary level services.
Meeting expectations AOCiP14	A trainee meeting expectations has a good working knowledge of single gene disorders, aneuploidy, copy number variants and syndromic disorders, and the molecular and cytogenetic tests used to investigate and diagnose these disorders, and how these can be used in the prenatal period, and whom they should be offered to, working closely with scientists and clinical genetics.

Table 5 - Levels of supervision

Level	Descriptor
Level 1	Entrusted to observe
Level 2	Entrusted to act under direct supervision: (within sight of the supervisor).
Level 3	Entrusted to act under indirect supervision: (supervisor immediately available on site if needed to provide direct supervision)
Level 4	Entrusted to act independently with support (supervisor not required to be immediately available on site, but there is provision for advice or to attend if required)
Level 5	Entrusted to act independently



Trainees will need to meet expectations for the time spent undertaking subspecialty training as a minimum to be judged satisfactory to progress. The expectations for the level of supervision expected by the end of training for all the AOCiPs in MFM subspecialty training is level 5.

b) Key skills and their descriptors

Beneath each high-level learning outcome are a series of key skills which provide further detail and substance to what the purpose and aims are of the AOCiPs. These give guidance to the trainer and trainee as to what is needed to be achieved for completion of the AOCiPs. Competency levels do not need to be ascribed to these individual key skills prior to assessments however the evidence collected by the trainee should be supporting progress in the acquisition of these skills over the course of training. Review of these key skills, and progress with them, forms an essential part of the global assessment of progress with the AOCiPs. It is expected, by the time of completion of subspecialty training, that all the key skills in the AOCiPs will be evidenced.

c) Practical procedures

The procedures which feature in the MFM SST, and the competency level required by the end of training, are listed in table 6. Evidence supporting the acquisition of these procedural skills will take the form of OSATs, reflections and procedure logs. Training courses, simulation training and case-based discussions may also help to support procedural competency sign off. In line with the previous curriculum, only fetal ECHO, amniocentesis and CVS require three OSATs evidencing competent independent practice for this MFM SST. However, it is recommended that the other procedural skills listed here which also require level 5 sign off should also be evidenced by at least three competent OSATs where possible before sign-off. This is an extensive list, and it is clear that some 'procedures' will be very difficult to evidence with OSATs. Because of this, only fetal ECHO, amniocentesis and CVS require three competent summative OSATs for satisfaction of the matrix at the time of the final subspecialty centralised assessment. However, collection of OSATs in a wider range of procedures assists in evidencing the final 'global judgement' of the trainee. Used properly, OSATs are assessing more than pure isolated technical skills; they assess general surgical and ultrasound skills, communication within teams, communication with patients, and the ability of a doctor to reflect on the care they are providing. It is clear, therefore, that a trainee who has demonstrated technical skills in a competent way across a wide range of procedures should be more readily signed off as reaching level 5 in the various AOCiPs which contain 'procedures'. It is difficult to see how entrustability level 5 can be awarded to AOCiP 9 if the trainee has only OSATs for ECHO and invasive prenatal diagnostic techniques in their eportfolio.

Table 6 – List of 'procedures' in MFM subspecialty training

Procedures	Level by end	AOCIP	AOCIP	AOCIP	AOCIP	AOCIP	AOCIP
	of training *	1	2	4	9	10	12
Umbilical artery Doppler	5	Х					
Uterine artery Doppler	5	Х					
Middle cerebral artery Doppler	5	Х					
Ductus venosus Doppler	5	Х					
Cervical length scan	5	Х					
Amniocentesis	5			Х			Х
Assisted breech birth or a breech	5				Χ		
extraction at vaginal and							
caesarean birth in singleton and							
multiple pregnancies							
Caesarean section with	5				Х		
transverse lie							
Preterm vaginal birth	5				Х		
Preterm caesarean section,	5				Χ		
including non-lower segment							
uterine incisions							
Preterm twin birth	5				Х		
Vaginal birth or caesarean section	5				Х		
for twin pregnancy							
Internal Podalic version	5				Х		
ECV	5	Х			Х		
Manual rotation	5				Х		
Rotational operative vaginal birth	5				Х		
Caesarean section and operative	5				Х		
vaginal birth for those with BMI							
>40							
Uterine balloon tamponade	5				Х		
Brace suture	5				Х		
Peripartum hysterectomy	1				Х		
Laparotomy for intra-abdominal					Х		
bleeding							
Repair of uterine rupture	1				Х		
Repair of third degree tear	5				Х		
Repair of fourth degree tear	1				X		
Major placenta praevia	5				X		
Placenta accreta/percreta	1				X		
Classical caesarean section	5				X		
Determine the lie and	5					Х	
presentation for each fetus in a							
multiple pregnancy at term using							
ultrasound							
aitrasouria							

Procedures	Level by end	AOCIP	AOCIP	AOCIP	AOCIP	AOCIP	AOCIP
	of training *	1	2	4	9	10	12
Determine the presenting part in	5					х	
(suspected)preterm labour using							
ultrasound							
Locate fetal heart using	5					х	
ultrasound intrapartum							
Intrapartum identification of	5					х	
occiput using ultrasound							
Demonstration of the	5					х	
postpartum uterus and its							
endometrial echo using							
ultrasound							
CVS	5						Χ
Therapeutic amniodrainage	5						Х
Fetal blood transfusion	1						Х
Fetal ECHO	5		Х				Χ
Twin amniocentesis	5						Х
Fetocide	5						Х
Multifetal pregnancy reduction	3						Х
and selective termination of							
pregnancy in dichorionic twins							
and higher order pregnancies							
Drainage of cystic structure	5						Χ
Shunt (pleuro- and	1						Χ
vesicoamniotic)							
Placental laser	1						Х
Ultrasound assessment of	5	Х					
placental site (transvaginal)							
Ultrasound assessment of	5	Х					х
chorionicity							

^{*}Corresponds to 5 levels of supervision used to assess AOCiPs.

d) Knowledge criteria

It is recognised that the full spectrum of fetal abnormality and maternal medical conditions will not be witnessed by the trainee whilst they undertake MFM subspecialty training, and expecting independent competency in managing the full range of fetal and maternal medicine problems is unachievable. However, a broad and detailed knowledge base is expected as this will facilitate in the evidence-based management of all fetal and maternal medical problems, common and uncommon. The knowledge criteria for each AOCiP make clear what level of theoretical understanding and foundation knowledge is expected. This will be greater than the knowledge base expected for the MRCOG examinations. AOCiPs 12, 13 and 14 are specific



to subspecialty training and elevate the knowledge base expected of a subspecialist above that of an ATSM-holder.

4 What kind of evidence might be relevant to MFM subspecialty training?

As a trainee progresses through their subspecialty training they will be expected to collect evidence which demonstrates their development and acquisition of the key skills, procedures and knowledge acquisition. Examples of types of evidence are given below, but this list is not exhaustive. Trainees and trainers can discuss and agree other sources of relevant evidence. The emphasis should be on the quality of evidence, not the quantity. This evidence will be reviewed by the STPS when they are making a global assessment of the progress against the high-level outcome of each of the AOCiPs.

- **OSATS**
- CbD
- Mini-CEX
- Discussion of correspondence Mini-CEX
- Reflective practice
- TO2 (including SO)
- Regional and National Teaching and Training
- RCOG (and other) eLearning
- Conferences and courses attended
- Procedural log
- Case log
- Case presentations
- Quality Improvement activity
- Attendance at paediatric surgery
- Attendance at specialised neonatal/paediatric surgical and genetics clinics
- Attendance at general medical clinics
- Reflections on ward rounds on adult intensive/coronary care
- Attendance and presentation at multi-disciplinary meetings

Table 7 gives guidance regarding which work placed based assessments should be used to evidence of key skills for each AOCiP in MFM subspecialty training.

Table 7

AOCiP	OSATS	Mini-CEX	CbD	NOTSS	TO1/TO2	Reflective practice
AOCiP1 The doctor uses ultrasound to screen for and manage pregnancy complications, other than fetal abnormalities.	Х	Х	Х	Х	Х	Х
AOCiP2 The doctor confirms fetal normality and manages the key conditions targeted by the Fetal Anomaly Screening Programme (FASP).	Х	Х	Х	Х	Х	Х
AOCiP3 The doctor is able to manage a wide range of common conditions affecting the fetus.		Х	Х	Х	Х	Х
AOCiP4 The doctor describes, obtains informed consent for and performs amniocentesis.	Х	Х	Х			Х
AOCiP5 The doctor is able to recognise and manage common medical conditions in the pregnant woman.		Х	Х	Х	Х	Х
AOCiP7 The doctor manages intrapartum medical complications and preexisting conditions.		Х	Х	Х	Х	Х
AOCiP8 The doctor has obstetric medicine skills covering a wide range of maternal medical conditions.		Х	Х	Х	Х	Х
AOCiP9 The doctor recognises key intrapartum scenarios and manages them	Х	Х	Х	Х	Х	Х

AOCiP	OSATS	Mini-CEX	CbD	NOTSS	ТО1/ТО2	Reflective practice
using the necessary technical and non-technical skills.						
AOCiP10 The doctor uses ultrasound to optimise outcomes during labour and the immediate puerperium.	Х	Х	X		Х	Х
AOCIP12 The doctor is able to lead in providing care to women with pregnancies complicated by the full range of fetal concerns.	Х	Х	Х	Х	Х	Х
AOCIP13 The doctor can independently manage, in conjunction with specialists from other disciplines, pregnancies complicated by the widest range and most complex of maternal medicine conditions.		Х	X	X	X	X
AOCIP14 The doctor can apply knowledge of clinical and molecular genetics to the management of complex pregnancy.		Х	Х		Х	Х

5 When can an AOCiP be signed off?

The AOCiP is the fundamental basis of global judgement. Assessment of AOCiPs involves looking across a range of key skills and evidence to make a judgement about a trainee's suitability to take on particular responsibilities or tasks as appropriate to their stage of training. It also involves the trainee providing self-assessment of their performance for that stage of training. Each AOCiP has a lead statement, and the trainee and STPS must make their assessment of the competency level reached, as judged globally against this statement. There is no need to make an assessment of each key skill or descriptor within each AOCiP. The key skills and their descriptors are there to guide training and expectations but do not need to be



assessed individually. However, review of these skills and descriptors will aid in the global assessment of progress with that AOCiP and its lead statement.

Clinical Supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. Evidence to support the global rating for the AOCiP will be derived from workplace-based assessments and other evidence, e.g. TO2. The progress a trainee is making with the acquisition of technical procedural skills which form part of an AOCiP, should also be considered when giving a global rating (see below).

A trainee can make a self-assessment of their progress in an AOCiP at any point in the training year. The first question for a trainee to ask themselves is

- Do I think I meet the expectations for this year of training?
 If the answer is yes than the next questions to ask are:
- Have I produced evidence and linked that evidence to support my self-assessment?
- Is this the best evidence to support this? Have I got some evidence about the key skills?
- Is this evidence at the right level?
- Do I understand the knowledge requirements of this CiP? If not do I need to look at the knowledge syllabus?

Once the trainee has completed the self-assessment and has been encouraged to provide a short summary to the rationale for their self-assessment, the STPS needs to review the evidence and ask the same questions.

- Do I agree with the trainee for the self-assessment for this AOCiP? Is this sufficient evidence to sign off the AOCiP as level 5?
- Is this the best evidence? Would some of this evidence be more appropriate in other AOCiPs as evidence? For example, would the CbD about a change of practice be better linked to a clinical CIP?
- Is there other evidence that has been missed?
- Is the level right for this trainee? Are they meeting the standards of expectations?

At certain key time points (usually prior to a subspecialty assessment), but also at any other point suggested by the trainee or their STPS, both the trainee and the STPS will make their own judgements of what competency level has been reached in each AOCiP. Most crucially this is a global judgement. There does not have to be evidence linked to every key skill, until the trainee reaches the point of completion of the subspecialty training programme. In addition, evidence for the following generic areas relevant to MFM SST: 'Clinical governance', 'Teaching experience', 'Research', 'Leadership and management experience' and 'Presentations and publications' as outlined in the matrix will be needed at senior trainee



level (see point 6 below). It is the **quality** of the evidence not the quantity which is key. The progress a trainee is making with the acquisition of technical procedural skills which form part of that AOCiP, and their knowledge base, should also be considered when giving a global rating.

Each clinical AOCiP in this curriculum has to be signed off using the new 5 levels of supervision, as defined in table 5 (above), and the generic areas relevant to MFM SST (see point 6 below) will need to be evidenced as outlined in the matrix. Each AOCiP must eventually be signed off to level 5.

Trainees will need to meet expectations for the year of training as a minimum to be judged satisfactory to progress. The expectations for the level of supervision expected for each year of subspecialty training for all the AOCiPs are in table 8 below. Progress with the generic areas relevant to MFM SST must be kept under constant review by the trainee and STPS, and both the STPS educational supervisors report, and the centralised assessment process will document how these are being achieved and evidenced.

The expected progression described in Table 8 is modelled against full time clinical training. Many trainees work less than full time, and other trainees spend only a proportion of their working week in clinical subspecialty training if this is combined with an academic lecturer post. For those trainees on a three-year programme, the proportion of time spent on their research, and when this is done over the course of the three years, will vary, although the total whole-time equivalent (WTE) *clinical* training should be two years, with 12 months for the research component. It is not possible to write an outline grid of progress expected for AOCiPs which covers all these variations in the pattern of subspecialty training. At each subspecialty assessment, the panel will judge the evidence against how much whole-time equivalent *clinical* training time has occurred, not the number of calendar months since training began, or since the last assessment. It is expected that the STPS, through their reports, will make clear to the assessment panel how much WTE clinical training is being assessed.

Some subspecialty trainees will accrue skills and competencies steadily across all the capabilities in practice, throughout their subspecialty training, and the outline grid of progress expected for AOCiPs gives guidance as to what is deemed adequate progress by the end of the first 12 months WTE of clinical training. However, other trainees follow a modular approach during subspecialty training, and the progression through the AOCiPs will be quite different for them and their progress may not be so readily compared to this outline grid. For these trainees, assessors will be expecting completion of some AOCiPs ahead of time, whilst other AOCiPs may not have been commenced by the end of the first 12 WTE months of clinical training. It is not possible to create a didactic outline grid which covers all training programmes, and common sense and judgement will be required, in the same way as it was in the previous curriculum, with respect to competency accrual and module sign off. However, as a rough guide, after one year WTE clinical subspecialty training, i.e. half way



through clinical training, the centralised assessment panel will expect the scores of the entrustability levels to have reached 30 (entrustability level 5 x 12 AOCiPs = 60). This will be calculated in a pro rata way for trainees who have completed only part of a full year of clinical training. This is a guide only, but serves to assess progress across a wide variety of different programme formats.

Table 8 Outline grid of progression for the AOCiPs in MFM subspecialty training

	MFM SST			
Capabilities in practice	Progress expected by completion of 12 months WTE of clinical training	Progress expected by completion of 24 months WTE of clinical training		
1: The doctor uses ultrasound to screen for, and manage, pregnancy complications, other than fetal abnormality.	3	5		
2: The doctor confirms fetal normality and manages the key conditions targeted by the Fetal Anomaly Screening Programme	3	5		
3: The doctor is able to manage a wide range of common conditions affecting the fetus	3	5		
4: The doctor describes, obtains informed consent for and performs amniocentesis	3	5		
5: The doctor is able to recognise and manage common medical conditions in the pregnant woman	4	5		
7: The doctor manages intrapartum medical complications and pre-existing conditions	4	5		
8: The doctor has obstetric medicine skills covering a wide range of maternal medical conditions	3	5		
9: The doctor recognises key intrapartum scenarios and manages them using the necessary technical and non-technical skills	4	5		
10: The doctor uses ultrasound to optimise outcomes during labour and the immediate puerperium	3	5		
12: The doctor is able to lead in providing care to women with pregnancies complicated by the full range of fetal concerns	2	5		

13: The doctor can independently manage, in conjunction with specialists from other disciplines, pregnancies complicated by the widest range and most complex of maternal medical conditions	2	5
14: The doctor can apply knowledge of clinical and molecular genetics to the management of complex pregnancy	2	5

6 Generic capabilities

Subspecialty training has always had a generic curriculum, and trainees have always been expected to present evidence supporting competency in the generic areas relevant for MFM SST. All subspecialty trainees will need to provide evidence collected during subspecialty training for the following areas at the centralised assessments:

- Clinical Governance
- Teaching Experience
- Research and Innovation
- Leadership and Management
- Presentations and Publications

This evidence should be uploaded into the 'Other evidence' section of the ePortfolio.

Pre-CCT subspecialty trainees on the 2019 core curriculum will be expected by subsequent **ARCP** panels to meet the expectations of the core generic and non-clinical specialty CiPs at ST6/7 level, using their exposures and experiences in subspecialty training to evidence these generic capabilities and skills. The evidence of generic skills that they accumulate for their subspecialty training, in line with the above list, should be linked to the appropriate core generic and non-clinical specialty CiPs and may need to be supplemented to satisfy their educational supervisors and ARCP panels that the full range of core generic and non-clinical specialty CiP key skills requirements are being met at ST6/7 level.

For each of these core generic and non-clinical specialty CiPs, there is a CiP guide <u>here</u> outlining what the level of expectation is for senior trainees in ST6 and 7.

Pre-CCT on the 2013 core curriculum, CCT holders and overseas doctors undertaking subspecialty training do not need to complete the core generic and non-clinical specialty CiPs, although may choose to link the evidence of their generic skills, collected according to the above list, into the core generic or non-clinical specialty CiPs on the ePortfolio after uploading this evidence into the 'other evidence' section of the eportfolio.



7 The subsequent ARCP

Pre-CCT subspecialty trainees should ideally have an ARCP scheduled within a couple of months of their centralised SST assessment. ARCPs are clearly not needed for overseas SSTs, or those who have their CCT already. The narrative outcome awarded by the centralised assessment will be used as a significant contributor to the ARCP assessment, but trainees do need to appreciate that satisfactory progression through subspecialty training does not necessarily guarantee a satisfactory outcome (outcome 1) at the subsequent ARCP. For this reason, they will need to complete an ESR for their ARCP with their educational supervisor, separate and in addition to the SST ESR they created for their subspecialty assessment. The two different forms of ESRs are clearly marked and easily accessible from the front page of the trainee or supervisor log-in for that trainee. Trainees need to ensure that they are also achieving any matrix requirements for the core curriculum which are additional to those on the subspecialty matrix.

For pre-CCT SSTs using the 2019 core curriculum, the key additional areas to focus on are the evidencing of all the core generic and non-clinical specialty CiPs to ST6/7 level, and the sign-off of the core clinical CiPs (9-12) to entrustability level 5 by the completion of training and the final ARCP. All subspecialty trainees using the 2019 core curriculum do need to collect evidence to satisfy all four core clinical CiPs to entrustability level 5, but DO NOT need to collect 'ongoing competency' OSATs for core procedures that they have already demonstrated competency in (with three competent summative OSATs), in line with the new 2019 core matrix.

Pre-CCT SSTs using the 2013 core curriculum will still be assessed at their ARCP using the 'old' core matrix. This does mandate a specific number of work place based assessments that the matrices for the 2019 core curriculum do not. However, it has been decided that subspecialty trainees using the 2013 core curriculum DO NOT need to collect OSATs showing ongoing competency for core procedures such as laparoscopy, caesarean section or instrumental birth (which are listed as mandatory on the old core matrix at ST6/7 level. This, for example, means that an MFM SST who has previously been signed off as competent at performing laparoscopy (which you must before progressing into ST6 and/or subspecialty training) need <u>not</u> collect further laparoscopy OSATs showing ongoing competency. This advice supersedes any previous information found in older versions of this document or guidance available elsewhere. Trainees will still need to ensure that all advanced competences in the 2013 core curriculum (i.e. dark pink boxes in old logbook) are completed by the end of SST training with appropriate documentation on ePortfolio for their ARCP.

8 Example case study

Dr Adeyemi has completed ten months of training as an ST6, and has commenced the Advanced Labour Ward Skills and Fetal Medicine ATSMs. **He is using the 2019 core curriculum**. Prior to starting ST6, he had spent two years in a research post and has submitted



an MD which will be examined very soon. Two first author papers have been generated and submitted. He applies for a subspecialty training post in MFM, and is successful. He is granted a two-year programme, in anticipation of research exemption.

Before commencing subspecialty training, he has a meeting with the ATSM Educational Supervisors of the two ATSMs. He judges his own progress in AOCiPs 1, 2 and 3, 7, 9 and 10 (the AOCiPs making up the two ATSMs) and is pleased that his supervisors agree with him. He is closer to completing the Advanced Labour Ward Practice ATSM, than he is with Fetal Medicine ATSM. The agreed levels of competency across the AOCiPs are 3, 2, 1, 4, 5, 4 (for AOCiPs 1, 2, 3, 7, 9, 10 respectively). He is also making progress with having the generic core competencies signed off at ST6/7 level.

On commencing subspecialty training his new Subspecialty Training Programme Supervisor (STPS) reviews his ePortfolio and has no disagreement with regards to his progress with these AOCiPs. Together, they firstly review the other AOCiPs which will need to be completed to level 5 competency over the next two years, including AOCiP4 (amniocentesis), AOCiPs 5 and 8 (the AOCiPs covering the obstetric medicine ATSM) and AOCiPs 12, 13 and 14 (the AOCiPs which are found only in MFM subspecialty training). The subspecialty training programme in this unit employs a modular approach. Dr Adeyemi will focus his first six months on scanning, learning invasive procedures and fetal medicine. Year two is when he will be spending more of his time in obstetric medicine clinics.

Secondly, they review his progress with the core generic competencies and clarify what will be needed as evidence for his centralised assessment and if anything more will be needed to sign off all the generic and non-clinical specialty core CiPs to ST6/7 level for his final ARCP.

Finally, they review his progress with the clinical core CiPs (9 to 12) and how these might be evidenced and signed off to entrustability level 5 by the time he completes training. They review guidance from the RCOG which gives examples of how the gynaecological core CiPs (9 and 11) can be adequately evidenced for an MFM trainee.

Dr Adeyemi's next ARCP happens to be 10 months after he starts subspecialty training. This means that his first subspecialty assessment is nine months following his start date. Three weeks before his centralised subspecialty assessment, Dr Adeyemi meets with his Subspecialty Training Programme Supervisor to review his progress and complete the Subspecialty Training Educational Supervisor Report (SST ESR). Dr Adeyemi feels that he has now completed to level 5 AOCiPs 1, 7, 9, and 10. He feels he has reached level 3 in AOCiPs 2, 3, 5 and 8 and level 2 in 4, 12, 13 and 14.

His Subspecialty Training Programme Supervisor reviews his evidence and agrees with this assessment, except for AOCiP 4 (amniocentesis) and AOCiP 14 (genetics for the subspecialist). Dr Adeyemi has actually performed a significant number of amniocenteses under supervision and has shown great aptitude. He has now performed three straightforward amniocenteses without direct supervision, and has shown good levels of insight with regard to the potential



ease or severity of any particular case. His STPS reviews his OSATs, procedure log and relevant reflections and feels he can be signed off at level 3 in AOCiP4.

However, Dr Adeyemi has not yet had the opportunity to attend clinical genetics clinics, nor has he received any formal training on clinical or laboratory genetics. Two case based discussions on his eportfolio point out his poor background knowledge and understanding of Mendelian genetics, and his STPS feels that AOCiP14 should be signed off only to level 1.

Together, they then review the evidence for generic areas relevant to MFM SST. Dr Adeyemi has almost completed an audit of the management of women with red cell antibodies, and has helped to write a regional guideline on this topic. Together with his STPS, a blood transfusion specialist, and the senior midwifery team, he has worked to introduce routine non-invasive fetal RhD status testing for all Rhesus D negative non-isoimmunised women. His multi-source feedback is mostly very good, and he has a number of mini-CEX, reflections and NOTSS work place based assessments that he has linked to these core generic competencies, which support his very good communication skills. His NOTSS from labour ward suggest that he is a rather laid back individual who has a tendency to be rather passive during very busy times. They agree that he is making mostly good progress with these aspects of the curriculum but that he needs to focus on his prioritisation and leadership skills. They discuss strategies for addressing these issues.

Dr Adeyemi has been awarded his MD, and both papers have been accepted for publication. He is research exempt, but needs to maintain some research activity over the remainder of his subspecialty training.

In summary, nine months into his subspecialty training, Dr Adeyemi is well ahead in many of the AOCiPs (because of aptitude and also because of the time spent before subspecialty training on the ATSMs) but is further behind on a few others (either as a result of the modular programme, or because he has natural weaknesses which need to be targeted in the coming months). Overall, however, the STPS feels that progress is where it should be for this point in his training. Of note his total score for all entrustability levels is 38 out of a maximum 60 required at SST i.e. >50%. He is awarded a satisfactory narrative outcome at his centralised assessment, and soon after meets with his ES once again to complete the ESR for his ARCP.

This is then an opportunity to focus on the progress Dr Adeyemi is making with his core generic and non-clinical specialty CiP completion and his core clinical CiP completion. It becomes clear that although Dr Adeyemi has a wealth of evidence supporting a wide range of generic skills and competencies, which was more than sufficient to satisfy the centralised assessors, he has not attached this evidence to the key skills of the core generic and non-clinical specialty CiPs in any comprehensive way. Following advice from his ES, he does this, along with some additional evidence he has collected, and then sends CiP assessment requests to his ES who is then happy to sign them off indicating that the trainee is meeting expectations for an ST6/7 trainee across all these generic and non-clinical specialty CiPs. Greater concerns are raised by reviewing CiPs 9 and 11 however, which have no evidence



attached since the trainee commenced ST6. The ES reminds the pre-CCT MFM trainee that he will be eventually awarded a CCT in both obstetrics and gynaecology, and that he needs to evidence his ST6/7 level competencies in gynaecology as well as obstetrics. They review RCOG advice covering this issue, and the trainee agrees to complete work place based assessments whilst covering gynaecology emergencies on call, attend a pelvic floor clinic, visit a local IVF unit and attend a gynaecology-oncology MDT where the impacts of investigations and treatments for cancer on young women are regularly discussed. Because the trainee cannot evidence his progress in these gynaecological capabilities in practice in time for his ARCP, he is awarded an outcome 2 by the ARCP panel (i.e. progress has been acceptable overall but there are some competences that have not been fully achieved and need to be further developed: additional training time not required).

(For clarity, engagement with the core clinical and non-clinical CiPs is necessary by this trainee because they are using the 2019 core curriculum. Overseas and post-CCT subspecialty trainees do not need to engage with core curriculum CiPs, but do need to collect evidence of generic skills as listed in section 6; this evidence will be assessed by the centralised assessment panel. Pre-CCT trainees on the 2013 core curriculum also need to collect this generic evidence, and ensure that they are reaching the requirements of the 2013 core matrix)