LANDSPÍTALI

Curriculum for Endocrinology Training

Marklýsing fyrir sérnám í innkirtlalækningum á Íslandi

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ROYAL COLLEGE of PHYSICIANS of EDINBURGH
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Formáli á íslensku (preface in icelandic):

Marklýsing þessi lýsir sérnámi í innkirtlalækningum á Íslandi en til hugtaksins innkirtlalækningar teljast sykursýki og efnaskipti í víðum skilningi. Sérnámið er sniðið að læknum sem hafa lokið fullu sérnámi í almennum lyflækningum á Íslandi, eða sambærilegri þjálfun erlendis, og hyggjast öðlast sérfræðiréttindi í undirsérgreininni innkirtlalækningar. Þetta er því sérhæft framhaldsnám til viðbótar við almennar lyflækningar (sérnám á hærra stigi eða framhaldssérnám, e. Higher Specialist Training). Marklýsingin gerir ráð fyrir að læknir hafi öðlast MRCP diploma gráðuna (eða sambærilega gráðu) áður en sérnám í undirsérgreininni er hafið. Marklýsingin lýsir innihaldi, framkvæmd og kröfum námsins og þar með forsendum námslokavottorðs og umsóknar um sérfræðileyfi. Læknar sem ljúka sérnámi þessu á fullnægjandi hátt uppfylla þannig kröfur alþjóðlegra sérfræðiviðurkenninga (Evidence of Formal Qualification, EFQ) í faginu og geta starfað sem slíkir á Íslandi og í öðrum Evrópuríkum þegar sótt hefur verið um viðeigandi leyfi. Þessi útfærsla er í samræmi við reglugerð 0856/2023. Fullt sérnám í almennum lyflækningum á Íslandi hefur verið viðurkennt frá 2021. Marklýsingin fyrir sérnám í almennum lyflækningum er byggð á breskum marklýsingum og því byggir marklýsing fyrir undirsérgreinanám í innkirtlalækningum á sama grunni, þ .e. þeirri marklýsingu sem gildir til sérfræðiviðurkenningar í Bretlandi (e. Curriculum for Endocrinology and Diabetes Training August 2022). Joint Royal Colleges of Physicians Training Board (JRCPTB) sjá um umsýslu á umræddum marklýsingum í Bretlandi, en þær eru samþykktar af og birtar á vef General Medical Council (GMC). Sérnám í læknisfræði á Íslandi fer hins vegar fram á ábyrgð Framkvæmdastjóra lækninga viðkomandi heilbrigðisstofnunar, en er samþykkt og undir eftirliti mats- og hæfisnefndar sem starfar á forræði Heilbrigðisráðuneytis samkvæmt reglugerð 0856/2023.

Marklýsing þessi er staðfærð fyrir Ísland í því skyni að tryggja gæði sérnáms. Vakin er athygli á að skiptinám eða námsdvöl á háskólasjúkrahúsi erlendis er forsenda þess að öll skilyrði sérnámsins séu uppfyllt. Til að öðlast námslokavottorð þarf sérnámslæknir undirsérgreinarinnar einnig að standast breskt eða evrópskt próf til sérfræðiréttinda í innkirtlafræðum. Þegar þessi marklýsing er innleidd er ekki val um að taka almennar lyflækningar og undirsérgrein í innkirtlalækningum samhliða á Íslandi (eins og venjan er í Bretlandi) - lok sérnáms í almennum lyflækningum er forsenda. Gert er þannig ráð fyrir að læknir sem hefur sérnám í undirsérgrein lyflækninga; innkirtlalækningum, hafi lokið öllum almennum starfshæfniviðmiðum (e. Generic capabilities in practice) og klínískum starfshæfniviðmiðum (e. Clinical capabilities in practice) sem tilgreind eru í marklýsingu þessari, enda hefur læknirinn sérfræðiréttindi í almennum lyflækningum. Skipulag undirsérgreinanámsins miðar að því að þjálfa sérhæfð starfshæfniviðmið fyrir innkirtlalækningar (e. Specific capabilities in practice) ásamt því að viðhalda fyrri hæfni.

Marklýsing þessi lýsir þannig forsendum, innihaldi, hæfnikröfum og framkvæmd undirsérgreinanáms í innkirtlalækningum á Íslandi til sérfræðiviðurkenningar, ásamt því að lýsa matskerfi, framvinduviðmiðum og handleiðarakerfi námsins. Fullnægjandi framgangur og viðeigandi námslokavottorð gerir sérfræðilækni þannig kleift að sækja um innkirtlalækningar

sem undirsérgrein lyflækninga og þannig hæfi til sjálfstæðra starfa sem sérfræðingur í innkirtlalækningum á Íslandi, Bretlandi og öðrum Evrópuríkjum. Auk þess er einn helsti tilgangur sérnáms í innkirtlalækningum samkvæmt marklýsingu þessari, að tryggja gæði og sjálfbærni í læknisþjónustu á Íslandi við þá einstaklinga sem þjást af sjúkdómum í innkirtlum.

1. Introduction

Speciality training in Endocrinology will take trainees who have completed Internal Medicine training (IMT) and successfully applied for a license to practice as a consultant physician within Internal Medicine in Iceland to the level at which they have the capabilities required to acquire a certificate of completion of training (CCT) in the speciality of endocrinology (EDM: Endocrinology, Diabetes & Metabolism).

On completion of training in EDM according to this curriculum the trainee becomes eligible to be granted Evidence of Formal Qualification (EFQ) and to successfully apply to the Directorate of Health in Iceland for a license to practice as a consultant physician within this subspecialty in Iceland and within the European Union and European Economic Area. This curriculum is based on the endocrinology & diabetes mellitus specialty training curriculum in the UK, which is managed by the Joint Royal Colleges of Physicians Training Board (JRCPTB) and agreed by the General Medical Council (GMC). Postgraduate Medical Training in Iceland is governed and delivered in keeping with and as described in the regulation on the education, rights and obligations of medical doctors and criteria for granting of licenses to practice medicine and specialist medical licenses, No. 0856/2023. As defined by this legal framework, this curriculum defines the purpose, content and process of training as well as the programme of assessment for EDM speciality training. It thereby includes the learning outcomes for a CCT and framework for the granting of EFQ in concordance with European regulations and a specialist licence in Endocrinology in Iceland and the EU.

The purpose of the endocrinology specialty training curriculum is to train doctors with the generic professional and specialty specific capabilities needed to manage patients presenting with endocrine disorders as described below. Such doctors will be qualified to practice as consultants in endocrinology, entrusted to deliver and clinically lead services for with these disorders within hyper-acute, in-patient, out-patient and community settings. They will have the skills required to address the challenges of evolving needs of patients from the age of 18 to the end of life.

The curriculum for endocrinology (EDM: Endocrinology, Diabetes & Metabolism) will serve as a guide for training and codify the standards required to be listed in the specialist register of the Icelandic Ministry of Health.

It will be a roadmap for progression through training and should be used in conjunction with the most up to date version of the gold guide (Gullbókin, Handbók um sérnám lækna) and guidance from the Evaluation and Competence Committe on Clinical Training.

2. Purpose

2.1 Purpose of the curriculum

In recent years, several international reports have emphasised the need to ensure continuous review and reform of postgraduate training of all doctors to ensure it is more patient focused, more general (especially in the early years) and with more flexibility of career structure. With an ageing population, elderly patients exhibit co-morbidities and increasing complexity so acute medical and palliative medicine services need a revised approach to training the physician of the future to meet these needs.
All postgraduate curricula should be based on higher level learning outcomes and must incorporate generic professional capabilities (GPC). A fundamental component of the GPCs is ensuring that the patient is at the centre of any consultation and decision making.

Endocrinology is a major specialty of medicine dealing with common and uncommon disorders resulting in diverse health needs of patients from the age of 18 years to the end of life. Strictly defined, Endocrinology deals with a broad range of disorders due to either structural or functional abnormalities of hormone producing organs. Some specific examples have by virtue of complexity or prevalence become almost subspecialties of their own. This includes diabetes mellitus which centres on the prevention and treatment of disorders characterised by hyperglycaemia. Other, as of now less well characterised disorders are grouped under the collective term Metabolic Disorders while yet others, such as osteoporosis or Metabolic Bone Disease, have historically blurred boundaries with e.g. Rheumatology or even centres for rare genetic disorders.

The above as well as the small size of the Icelandic medical and general population highlights the need to ensure that any training programme confers broad knowledge and practical competence to doctors. This can only truthfully be achieved by multidisciplinary collaboration with other formal specialties locally or abroad even though traditional training focused primarily on Endocrinology and Diabetes by virtue of prevalence or the significant impact they have on patients' lives.

Examples of clinical need in endocrinology

Endocrine disorders range from common conditions such as thyroid disorders which have a prevalence of up to 19/1000 women to Addison's disease which has an estimated prevalence of 39 to 94 per million population (1–3).

Thyroid diseases - are amongst the commonest endocrine disorders. A vast array of abnormalities results in either disorders of function or structure. Thyroid diseases are managed within the Icelandic health care system by a range of services including

collaboration with primary care and highly specialised multidisciplinary teams, often led by consultants in EDM.

Parathyroid and metabolic bone disease - parathyroid disease is common, affecting up to 21/1000 women over the age of 55 (4). Consultants in EDM work in expert teams involving radiologists, surgeons and geneticists to manage parathyroid disease. They provide expertise in the optimal management of these disorders including recommending surgery when appropriate, exclusion of genetic abnormalities and conservative management when this is the best approach for the patient.

Transition - children who have either endocrine abnormalities or diabetes mellitus need ongoing high-quality specialised care, often for life. This is an expert area that needs not only an understanding of the disease processes, but also enhanced communication skills and an understanding of safeguarding young people who are not yet adults. Consultants in EDM work with consultant paediatricians and paediatric teams to provide these services.

Survivors of childhood cancers - in the UK, one in 500 children develops cancer (5). In the last four decades, there has been a doubling in five-year survival (5,6). As outcomes for children's cancers improve, there are increasing numbers who reach adulthood. Nearly 95% of these survivors will experience long term health effects, many of which are endocrine abnormalities (5). One population-based study shows that survivors of childhood cancers are nearly 5 times more likely to develop endocrine abnormalities compared to the general population, highlighting the importance of ongoing follow-up (6). In addition to providing specialist care for cancer survivors, endocrinologists often coordinate other specialist care and provide general medical input for these patients when necessary.

Obesity and weight management - Obesity has risen in its prevalence in Iceland in recent years as it has in the rest of Europe. Body Mass Index in Iceland rose by 2 units from 1967 – 2007 and the proportion with BMI > 30 kg/m^2at least doubled (7). Obesity is a significant contributor for several serious and life-threatening diseases including cardiovascular disease, diabetes mellitus and cancers. Obesity services have different structures across Iceland. The range of services ranges from primary care interventions to tertiary services providing bariatric surgery. Specialists in EDM work with multidisciplinary teams (MDTs) to provide these services.

Endocrine tumours - tumours affect virtually all endocrine glands including the thyroid, parathyroids, adrenals, pancreas and gonads. Managing tumours in each of these glands needs considerable expertise, often by leading and working within highly specialised MDTs. Managing these tumours within these MDTs is essential to improve outcomes and minimise unnecessary and often expensive interventions. For example, adrenal tumours are incidentally discovered in up to 5% of all cross-sectional imaging of the chest/abdomen. Up to half of these are either functionally overactive or show malignant potential, therefore needing further assessment or treatment. However, they can be demanding of resources

and cause considerable anxiety for patients. Endocrinologists, working within multidisciplinary teams are responsible for identifying these patients needing further intervention and facilitating the safe discharge of others. Pituitary tumours have a prevalence of 116 per 100000 population (8). Many of these are functioning tumours that need treatment. The range of treatments includes medical, surgical or conservative. Most pituitary tumours need ongoing follow-up. Working within MDTs, and often leading them, consultants in EDM provide these services.

Endocrine emergencies - although less common than their diabetic counterparts, can be demanding on resources with a significant morbidity and mortality. Typical endocrine emergencies include hypercalcaemia and other electrolyte abnormalities including disorders of sodium, potassium and magnesium. Less common ones include hypoadrenal crises, pituitary apoplexy and phaeochromocytoma crises to name a few. These need early expert management to increase the chances of a favourable outcome as non-specialists tend to have less experience with these disorders. Specialists in EDM add value in caring for these patients by requesting and interpreting appropriate investigations and instigate the correct treatment in a timely manner.

Examples of clinical need in diabetes mellitus

Inpatient, perioperative management of diabetes mellitus and diabetic emergencies-
The prevalence of diabetes mellitus in inpatients in the UK has been shown to be between 17-33% (9) This is comparable in Iceland. Diabetes mellitus is associated with an increased length of stay and perioperatively has been shown to have increased mortality of up to 50% (10). In addition, patients can be excluded from day surgery where it is not necessary to do so with good perioperative management.

Inpatient diabetes teams led by consultants in EDM working with structured programs such as *Think Glucose* have shown significant improvements in quality when measured for parameters such as increased insulin and drug safety, reduced lengths of stay, reduced complaints and increased patient satisfaction (11). Specialists in EDM are often responsible for providing and supervising inreach services; setting local guidelines and standards. They work closely with specialist nursing teams who provide considerable expertise in these areas.

Community diabetes - diabetes mellitus is a global epidemic that results in earlier mortality and increased morbidity. Iceland is no exception (7) and it is expected that the proportion of people with diabetes over the age of 65 will rise significantly, with an aging population and people with diabetes living longer (12). The hospital specialist-based care provision for all people with diabetes is not fit for purpose in Iceland and is unlikely to be the health care delivery model of the future. Establishing MDT in selected centres or primary care around the country in close consultation with EDM specialists will likely provide the best possible diabetes care in the community. This has resulted in redefining roles of specialists and nonspecialists alike along with significant changes to commissioning of services and

adapting mindsets from purely hospital-based care to thinking about diabetes at a population level (12).

Diabetic foot disease - diabetes is the leading cause of non-traumatic above ankle amputations o in people in Iceland and is on the rise (13). There is evidence that 70% of people who have an amputation of the lower limb due to diabetes are at risk of dying in five years, due to cardiovascular disease (14). A report published by the NHS in 2012 estimated the cost of managing diabetic foot disease was £650 million per year. With good and timely care, most amputations are likely to be avoidable. Consultants in endocrinology and diabetes lead foot MDTs that have been shown to improve outcomes such as amputations in people with diabetic foot disease.

Perinatal - previously diagnosed diabetes or gestational diabetes present significant risks to the mother and baby. Gestational diabetes complicates at least 2-6% of pregnancies, although the prevalence can be significantly higher depending on the population. Diabetes mellitus is associated with poorer outcomes for mother and baby (15). Good antenatal care is essential, starting with the pre-pregnancy stage where possible to ensure best outcomes. The care that is provided at this crucial stage has the potential to influence long term outcomes for unborn babies and their mothers. This care is provided by a multidisciplinary team including consultants in EDM, obstetricians, specialist nurses, dietitians and midwives.

Insulin pumps and ambulatory glucose monitoring - over the last two decades, there have been significant advances in the continuous ambulatory monitoring of glucose and precise delivery of insulin via pumps. These are now routinely used in clinical practice in Iceland. The use of insulin pumps is estimated to be between 40-50% in patients with type 1 diabetes mellitus in Iceland and are associated with better outcomes in terms of improvement of glycaemic control and reduction of hypoglycaemia (16). This is a specialised area of practice where care delivery is provided by multidisciplinary teams, led by consultants in EDM.

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The curriculum aims to serve as a roadmap for training to be a specialist in EDM in addition to prescribing the knowledge, skills and behaviours that are required to be included in the specialist register for the specialty. In addition, it sets out the indicative amount of experience required to achieve these competencies where relevant. Trainees will enter the indicative three-year program following completion of IM stage 2. Within these 3 years the trainee is expected to rotate to a university hospital outside of Iceland for a minimum of 12 months, maximally divided to two periods. During the rotation abroad, the training should emphasize on diseases and circumstances which the trainee is less likely to encounter in Iceland.

Trainees will be assessed annually through the standardised ARCP process. In addition, the trainees are required to successfully pass the UK specialist certification examination (SCE) or a comparable exam, e.g. The European Board Examination in Endocrinology, Diabetes and Metabolism (ESE, UEMS). By the end of training, they should have attained all the competencies required by the curriculum and should be at level 4 for all CiPs (entrusted without supervision).

The scope of practice of EDM requires a deep understanding of pathophysiology of disease, epidemiology, primary and secondary prevention strategies, interpretation of biochemical and imaging tests along with their relevance to patient care.

Consultants in EDM generally work in hospitals, providing specialty and general internal medicine services. They often work in close collaboration with other specialists including nephrologists, biochemists, surgeons and radiologists to name a few. Many also work with colleagues in primary care, providing or leading specialist services in the community. They support the care of patients who have highly specialised surgery such as pituitary surgery and adrenal surgery. Often, they care directly for these patients in the immediate perioperative period. They mostly work with MDTs including doctors of various specialties and other health care professionals including specialist nurses, podiatrists, dietitians, practice nurses, often leading several MDTs. Training in the specialty is also provided usually embedded within these MDTs.

Many consultants in EDM will develop special areas of interest. Within diabetes care, some areas of special interest include antenatal diabetes, foot disease, diabetic kidney disease, insulin pumps, community diabetes to name a few. Within endocrinology, areas of special interest include pituitary disease, thyroid disease, adrenal disease, reproductive endocrinology, neuroendocrine tumours and metabolic bone disease.

Globally consultants in EDM are academically active, pursuing original research in a several fields including basic science, clinical trials, drug discovery and education to name a few. Trainees are encouraged to engage in research during their training either informally or by enrolling for a higher degree. They are supported by the program director and the University Hospital of Iceland to take time out of program to carry out research if requested. In addition, it is recognized that leadership roles, Quality improvement projects and Audits are equally important. Trainees will be encouraged and supported to pursue these important roles.

This purpose statement has been endorsed by the Speciality Advisory Committe (Mats- og hæfisnefnd) and confirmed as meeting the needs of the health services of Iceland.

2.2 High level learning outcomes – capabilities in practice (CiPs)

The capabilities in practice (CiPs) describe the professional tasks or work within the scope of endocrinology and diabetes mellitus. Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the minimum level of knowledge, skills and behaviours which should be demonstrated for an entrustment decision to be made. By the completion of training and award of a CCT, the doctor must demonstrate that they are capable of unsupervised practice in all CiPs.

The CiPs have been mapped to the GMC GPC domains and subsections to reflect the professional generic capabilities required to undertake the clinical tasks. Satisfactory sign off requires demonstration that, for each of the CiPs, the doctor in training's performance meets or exceeds the minimum expected level for completion of training, as defined in the curriculum.

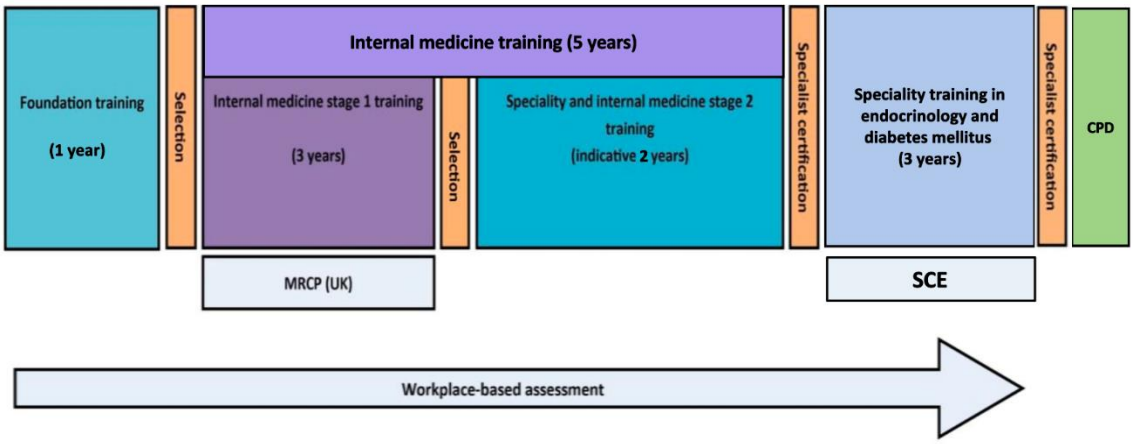
The endocrinology and diabetes CiPs comprise seven specialty CiPs, six generic CiPs shared across all physician specialties and eight internal medicine clinical CiPs shared across all group 1 specialties.

Learning outcomes – capabilities in practice (CiPs)
Generic CiPs
1. Able to successfully function within Icelandic healthcare organisational and management systems 2. Able to deal with ethical and legal issues related to clinical practice 3. Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement 4. Is focussed on patient safety and delivers effective quality improvement in patient care 5. Carrying out research and managing data appropriately 6. Acting as a clinical teacher and clinical supervisor
Clinical CiPs (Internal Medicine)
1. Managing an acute unselected take 2. Managing an acute specialty-related take 3. Providing continuity of care to medical inpatients, including management of comorbidities and cognitive impairment 4. Managing patients in an outpatient clinic, ambulatory or community setting, including management of long-term conditions 5. Managing medical problems in patients in other specialties and special cases 6. Managing a multi-disciplinary team including effective discharge planning 7. Delivering effective resuscitation and managing the acutely deteriorating patient 8. Managing end of life and applying palliative care skills

Specialty CiPs
1. Providing diagnosis, management of diabetes mellitus as a long-term condition in outpatient, ambulatory or community settings 2. Providing diagnosis, support and management for people with diabetic foot disease 3. Providing diagnosis, support and management for women with diabetes and endocrine disorders in the perinatal period 4. Providing diagnosis, support and management of diabetes and endocrine disorders in adolescents and young adults (AYA) 5. Providing diagnosis, support and management for people with endocrine disorders in the outpatient and ambulatory settings 6. Providing support and management of diabetes and endocrine disorders in perioperative period 7. Providing support and management of people with diabetic and endocrine emergencies including management of these conditions during acute illness

2.3 Inclusion criteria and training pathway

Endocrinology and Diabetes Mellitus is a subspecialty of Internal medicine in Iceland and is entered on ST6 on completion of total 5 years of Internal Medicine (IMT stage 1 and stage 2)[5] with full MRCP(UK). Thus, to be eligible to apply for the Endocrinology program described in this curriculum, applicants must have a full MRCP(UK) diploma or have concluded comparable full training in internal medicine at nationally recognized institutions in Europe or North America. Eligibility for applicants will be determined by the program director in consultation with the EDM training board (kennsluráð innkirtlalækninga).
Trainees will undertake an indicative 3-year higher specialist training programme in EDM.



2.4 Duration of training

There will be options for those trainees who demonstrate exceptionally rapid development and acquisition of capabilities to complete training more rapidly than the current indicative time although it is recognised that clinical experience is a fundamental aspect of development as a good physician (guidance on completing training early will be available on the JRCPTB website). There may also be trainees who develop more slowly and will require an extension of training in line the Reference Guide for Postgraduate Specialty Training in the Iceland (The Gold Guide, Gullbókin).

2.4 Flexibility and accreditation of transferrable capabilities

The curriculum supports flexibility and transferability of outcomes across related specialties and disciplines, reflecting key interdependencies between this curriculum and other training programmes, outlined below.

The curriculum incorporates and emphasises the importance of the generic professional capabilities (GPCs). GPCs will promote flexibility in postgraduate training as these common capabilities can be transferred from specialty to specialty. Additionally, all group 1 specialties share the internal medicine clinical capabilities.

2.5 Less than full time training

Trainees are entitled to opt for less than full time training programmes. Less than full time trainees should undertake a pro rata share of the out-of-hours duties (including on-call and other out-of-hours commitments) required of their full-time colleagues in the same programme and at the equivalent stage.

Less than full time trainees should assume that their clinical training will be of a duration prorata with the time indicated/recommended, but this should be reviewed in accordance with the Gold Guide (Gullbókin).

2.6 Generic Professional Capabilities and Good Medical Practice

The GMC has developed the Generic professional capabilities (GPC) framework[5] with the Academy of Medical Royal Colleges (AoMRC) to describe the fundamental, career-long, generic capabilities required of every doctor. The framework describes the requirement to develop and maintain key professional values and behaviours, knowledge, and skills, using a common language. GPCs also represent a system-wide, regulatory response to the most common contemporary concerns about patient safety and fitness to practise within the medical profession. The framework will be relevant at all stages of medical education, training and practice.

The nine domains of the GMC's Generic Professional Capabilities

Good medical practice (GMP)[6] is embedded at the heart of the GPC framework. In describing the principles, duties and responsibilities of doctors the GPC framework articulates GMP as a series of achievable educational outcomes to enable curriculum design and assessment.

The GPC framework describes nine domains with associated descriptor outlining the 'minimum common regulatory requirement' of performance and professional behaviour for those completing a CCT or its equivalent. These attributes are common, minimum and generic standards expected of all medical practitioners achieving a CCT or its equivalent.

The nine domains and subsections of the GPC framework are directly identifiable in the IM curriculum. They are mapped to each of the generic and clinical CiPs, which are in turn mapped to the assessment blueprints. This is to emphasise those core professional capabilities that are essential to safe clinical practice and that they must be demonstrated at every stage of training as part of the holistic development of responsible professionals.

This approach will allow early detection of issues most likely to be associated with fitness to practise and to minimise the possibility that any deficit is identified during the final phases of training.

3. Content of Learning

The curriculum is spiral, and topics and themes will be revisited to expand understanding and expertise. The level of entrustment for capabilities in practice (CiPs) will increase as an individual progresses from needing direct supervision to able to be entrusted to act unsupervised.

3.1 Capabilities in practice

CiPs describe the professional tasks or work within the scope of the specialty and internal medicine. CiPs are based on the concept of entrustable professional activities[7] which use the professional judgement of appropriately trained expert assessors as a defensible way of forming global judgements of professional performance.

Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the knowledge, skills and attitudes which should be demonstrated. Doctors in training may use these capabilities to provide evidence of how their performance meets or exceeds the minimum expected level of performance for their year of training. The descriptors are not a comprehensive list and there are many more examples that would provide equally valid evidence of performance.

Many of the CiP descriptors refer to patient centred care and shared decision making. This is to emphasise the importance of patients being at the centre of decisions about their own treatment and care, by exploring care or treatment options and their risks and benefits and discussing choices available.

Additionally, the clinical CiPs repeatedly refer to the need to demonstrate professional behaviour regarding patients, carers, colleagues and others. Good doctors work in partnership with patients and respect their rights to privacy and dignity. They treat each patient as an individual. They do their best to make sure all patients receive good care and treatment that will support them to live as well as possible, whatever their illness or disability. Appropriate professional behaviour should reflect the principles of GMP and the GPC framework.

In order to complete training and be recommended to the GMC for the award of CCT and entry to the specialist register, the doctor must demonstrate that they are capable of unsupervised practice in all generic and clinical CiPs. Once a trainee has achieved level 4 sign off for a CiP it will not be necessary to repeat assessment of that CiP if capability is maintained (in line with standard professional conduct).

This section of the curriculum details the six generic CiPs, eight clinical CiPs for internal medicine (stage 2) and seven of specialty CiPs for endocrinology and diabetes mellitus. The expected levels of performance, mapping to relevant GPCs and the evidence that may be used

to make an entrustment decision are given for each CiP. The list of evidence for each CiP is not prescriptive and other types of evidence may be equally valid for that CiP.

3.2 Generic capabilities in practice

The six generic CiPs cover the universal requirements of all specialties as described in GMP and the GPC framework. Assessment of the generic CiPs will be underpinned by the descriptors for the nine GPC domains and evidenced against the performance and behaviour expected at that stage of training. Satisfactory sign off will indicate that there are no concerns. It will not be necessary to assign a level of supervision for these non-clinical CiPs.

In order to ensure consistency and transferability, the generic CiPs have been grouped under the GMP-aligned categories used in the Foundation Programme curriculum plus an additional category for wider professional practice:

- Professional behaviour and trust
- Communication, team-working and leadership
- Safety and quality
- Wider professional practice

For each generic CiP there is a set of descriptors of the observable skills and behaviours which would demonstrate that a trainee has met the minimum level expected. The descriptors are not a comprehensive list and there may be more examples that would provide equally valid evidence of performance.

KEY

ACAT	Acute care assessment tool	ALS	Advanced Life Support
CbD	Case-based discussion	DOPS	Direct observation of procedural skills
GCP	Good Clinical Practice	SCE	Specialty Certificate Examination
Mini-CEX	Mini-clinical evaluation exercise	MCR	Multiple consultant report
MSF	Multi source feedback	PS	Patient survey
QIPAT	Quality improvement project assessment tool	TO	Teaching observation

Generic capabilities in practice (CiPs)	
Category 1: Professional behaviour and trust	
1. Able to function successfully within Icelandic healthcare organisational and management systems	
Descriptors	• Aware of and adheres to the GMC professional requirements • Aware of public health issues including population health, social determinants of health and global health perspectives • Demonstrates effective clinical leadership • Demonstrates promotion of an open and transparent culture • Keeps practice up to date through learning and teaching • Demonstrates engagement in career planning • Demonstrates capabilities in dealing with complexity and uncertainty • Aware of the role of and processes for operational structures within the NHS Aware of the need to use resources wisely
GPCs	Domain 1: Professional values and behaviours Domain 3: Professional knowledge • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries Domain 9: Capabilities in research and scholarship
Evidence to inform decision	MCR MSF Active role in governance structures Involvement in patient safety projects Clinical teacher reports Reflections in eportfolio Management course End of placement reports
2. Able to deal with ethical and legal issues related to clinical practice	
Descriptors	• Aware of national legislation and legal responsibilities, including safeguarding vulnerable groups • Behaves in accordance with ethical and legal requirements • Demonstrates ability to offer apology or explanation when appropriate • Demonstrates ability to lead the clinical team in ensuring that medical legal factors are considered openly and consistently

GPCs	Domain 3: Professional knowledge • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training

	Domain 9: Capabilities in research and scholarship
Evidence to inform decision	MCR MSF CbD DOPS Mini-CEX ALS certificate End of life care and capacity assessment End of placement reports Active role in governance structures Involvement in patient safety projects Clinical teacher reports Reflections in eportfolio End of placement reports
Category 2: Communication, teamworking and leadership	
3. Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement	
Descriptors	• Communicates clearly with patients and carers in a variety of settings • Communicates effectively with clinical and other professional colleagues • Identifies and manages barriers to communication (e.g., cognitive impairment, speech and hearing problems, capacity issues) • Demonstrates effective consultation skills including effective verbal and nonverbal interpersonal skills • Shares decision making by informing the patient, prioritising the patient's wishes, and respecting the patient's beliefs, concerns and expectations • Shares decision making with children and young people • Applies management and team working skills appropriately, including influencing, negotiating, re-assessing priorities and effectively managing complex, dynamic situations

GPCs	Domain 2: Professional skills • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 5: Capabilities in leadership and teamworking
Evidence to inform decision	MCR MSF PS End of placement reports ES report

	Patient surveys
Category 3: Safety and quality	
4. Is focussed on patient safety and delivers effective quality improvement in patient care	
Descriptors	• Makes patient safety a priority in clinical practice • Raises and escalates concerns where there is an issue with patient safety or quality of care • Demonstrates commitment to learning from patient safety investigations and complaints • Shares good practice appropriately • Contributes to and delivers quality improvement • Understands basic Human Factors principles and practice at individual, team, organisational and system levels • Understands the importance of non-technical skills and crisis resource management • Recognises and works within limit of personal competence • Avoids organising unnecessary investigations or prescribing poorly evidenced treatments

GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 3: Professional knowledge • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and teamworking Domain 6: Capabilities in patient safety and quality improvement • patient safety • quality improvement
Evidence to inform decision	MCR MSF QIPAT End of placement reports
Category 4: Wider professional practice	
5. Carrying out research and managing data appropriately	
Descriptors	• Manages clinical information/data appropriately • Understands principles of research and academic writing • Demonstrates ability to carry out critical appraisal of the literature
	• Understands the role of evidence in clinical practice and demonstrates shared decision making with patients • Demonstrates appropriate knowledge of research methods, including qualitative and quantitative approaches in scientific enquiry • Demonstrates appropriate knowledge of research principles and concepts and the translation of research into practice • Follows guidelines on ethical conduct in research and consent for research • Understands public health epidemiology and global health patterns • Recognises potential of applied informatics, genomics, stratified risk and personalised medicine and seeks advice for patient benefit when appropriate

GPCs	Domain 3: Professional knowledge • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries Domain 7: Capabilities in safeguarding vulnerable groups Domain 9: Capabilities in research and scholarship
Evidence to inform decision	MCR MSF GCP certificate (if involved in clinical research) Evidence of literature search and critical appraisal of research Use of clinical guidelines Quality improvement and audit Evidence of research activity End of placement reports
6. Acting as a clinical teacher and clinical supervisor	
Descriptors	• Delivers effective teaching and training to medical students, junior doctors and other health care professionals • Delivers effective feedback with action plan • Able to supervise less experienced trainees in their clinical assessment and management of patients • Able to supervise less experienced trainees in carrying out appropriate practical procedures • Able to act as clinical supervisor to doctors in earlier stages of training
GPCs	Domain 1: Professional values and behaviours Domain 8: Capabilities in education and training
Evidence to inform decision	MCR MSF TO Relevant training course End of placement reports

3.3 Clinical capabilities in practice

The eight IM clinical CiPs describe the clinical tasks or activities which are essential to the practice of Internal Medicine. The clinical CiPs have been mapped to the nine GPC domains to reflect the professional generic capabilities required to undertake the clinical tasks.

Satisfactory sign off will require educational supervisors to make entrustment decisions on the level of supervision required for each CiP and if this is satisfactory for the stage of training, the trainee can progress. More detail is provided in the programme of assessment section of the curriculum.

Clinical CiPs – Internal Medicine	
1. Managing an acute unselected take	
Descriptors	• Demonstrates professional behaviour with regard to patients, carers, colleagues and others • Delivers patient centred care including shared decision making • Takes a relevant patient history including patient symptoms, concerns, priorities and preferences • Performs accurate clinical examinations • Shows appropriate clinical reasoning by analysing physical and psychological findings • Formulates an appropriate differential diagnosis • Formulates an appropriate diagnostic and management plan, taking into account patient preferences, and the urgency required • Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues • Appropriately selects, manages and interprets investigations • Recognises need to liaise with specialty services and refers where appropriate
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and teamworking Domain 6: Capabilities in patient safety and quality improvement

	• patient safety • quality improvement

Evidence to inform decision	MCR MSF CbD ACAT ES report Logbook of cases Simulation training with assessment
2. Managing the acute care of patients within a medical specialty	
Descriptors	• Able to manage patients who have been referred acutely to a specialised medical service as opposed to the acute unselected take (e.g., cardiology and respiratory medicine acute admissions • Demonstrates professional behaviour with regard to patients, carers, colleagues and others • Delivers patient centred care including shared decision making • Takes a relevant patient history including patient symptoms, concerns, priorities and preferences • Performs accurate clinical examinations • Shows appropriate clinical reasoning by analysing physical and psychological findings • Formulates an appropriate differential diagnosis • Formulates an appropriate diagnostic and management plan, taking into account patient preferences, and the urgency required • Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues • Appropriately selects, manages and interprets investigations • Demonstrates appropriate continuing management of acute medical illness in a medical specialty setting • Refers patients appropriately to other specialties as required

GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and teamworking Domain 6: Capabilities in patient safety and quality improvement

	• patient safety • quality improvement
Evidence to inform decision	MCR MSF ES report CbD ACAT Logbook of cases Simulation training with assessment
3. Providing continuity of care to medical inpatients, including management of comorbidities and cognitive impairment	
Descriptors	• Demonstrates professional behaviour with regard to patients, carers, colleagues and others • Delivers patient centred care including shared decision making • Demonstrates effective consultation skills • Formulates an appropriate diagnostic and management plan, taking into account patient preferences, and the urgency required • Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues • Demonstrates appropriate continuing management of acute medical illness inpatients admitted to hospital on an acute unselected take or selected take • Recognises need to liaise with specialty services and refers where appropriate Appropriately manages comorbidities in medial inpatients (unselected take, selected acute take or specialty admissions) • Demonstrates awareness of the quality of patient experience

GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and teamworking Domain 6: Capabilities in patient safety and quality improvement • patient safety • quality improvement
Evidence to inform decision	MCR MSF ACAT

	Mini-CEX DOPS
4. Managing patients in an outpatient clinic, ambulatory or community setting (including management of long term conditions)	
Descriptors	• Demonstrates professional behaviour with regard to patients, carers, colleagues and others • Delivers patient centred care including shared decision making • Demonstrates effective consultation skills • Formulates an appropriate diagnostic and management plan, taking into account patient preferences • Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues • Appropriately manages comorbidities in outpatient clinic, ambulatory or community setting • Demonstrates awareness of the quality of patient experience

GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in the four countries Domain 5: Capabilities in leadership and teamworking
Evidence to inform decision	MCR ACAT mini-CEX PS Letters generated at outpatient clinics
5. Managing medical problems in patients in other specialties and special cases	
Descriptors	• Demonstrates effective consultation skills (including when in challenging circumstances) • Demonstrates management of medical problems in inpatients under the care of other specialties • Demonstrates appropriate and timely liaison with other medical specialty services when required
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty

	• clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 7: Capabilities in safeguarding vulnerable groups
Evidence to inform decision	MCR ACAT CbD

6. Managing a multi-disciplinary team including effective discharge planning	
Descriptors	• Applies management and team working skills appropriately, including influencing, negotiating, continuously re-assessing priorities and effectively managing complex, dynamic situations • Ensures continuity and coordination of patient care through the appropriate transfer of information demonstrating safe and effective handover • Effectively estimates length of stay • Delivers patient centred care including shared decision making • Identifies appropriate discharge plan • Recognises the importance of prompt and accurate information sharing with primary care team following hospital discharge
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 5: Capabilities in leadership and teamworking
Evidence to inform decision	MCR MSF ACAT Discharge summaries
7. Delivering effective resuscitation and managing the acutely deteriorating patient	
Descriptors	• Demonstrates prompt assessment of the acutely deteriorating patient, including those who are shocked or unconscious • Demonstrates the professional requirements and legal processes associated with consent for resuscitation • Participates effectively in decision making with regard to resuscitation decisions, including decisions not to attempt CPR, and involves patients and their families • Demonstrates competence in carrying out resuscitation
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills • practical skills

	• communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in the four countries Domain 5: Capabilities in leadership and teamworking Domain 6: Capabilities in patient safety and quality improvement • patient safety • quality improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence to inform decision	MCR DOPS ACAT MSF ALS certificate Logbook of cases Reflection Simulation training with assessment
8. Managing end of life and applying palliative care skills	
Descriptors	• Identifies patients with limited reversibility of their medical condition and determines palliative and end of life care needs • Identifies the dying patient and develops an individualised care plan, including anticipatory prescribing at end of life • Demonstrates safe and effective use of syringe pumps in the palliative care population • Able to manage non complex symptom control including pain • Facilitates referrals to specialist palliative care across all settings • Demonstrates effective consultation skills in challenging circumstances • Demonstrates compassionate professional behaviour and clinical judgement

GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills *(history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease)* Domain 3: Professional knowledge • professional requirements
	• national legislation • the health service and healthcare systems in the four countries
Evidence to inform decision	MCR CbD Mini-CEX MSF Regional teaching Reflection

3.4 Specialty capabilities in practice

The specialty CiPs describe the clinical tasks or activities which are essential to the practice of endocrinology and diabetes mellitus. The CiPs have been mapped to the nine GPC domains to reflect the professional generic capabilities required to undertake the clinical tasks.

Satisfactory sign off will require educational supervisors to make entrustment decisions on the level of supervision required for each CiP and if this is satisfactory for the stage of training, the trainee can progress. More detail is provided in the programme of assessment section of the curriculum.

KEY

ACAT	Acute care assessment tool	ALS	Advanced Life Support
CbD	Case-based discussion	DOPS	Direct observation of procedural skills
GCP	Good Clinical Practice	SCE	Specialty Certificate Examination
Mini-CEX	Mini-clinical evaluation exercise	MCR	Multiple consultant report
MSF	Multi source feedback	PS	Patient survey
QIPAT	Quality improvement project assessment tool	TO	Teaching observation

Specialty CiPs	
1. Providing diagnosis and management of diabetes mellitus as a long-term condition in outpatient, ambulatory or community settings	
Descriptors	• Demonstrates ability to diagnose diabetes of various types and provides expertise where there is diagnostic uncertainty • Shows understanding of systems to provide diabetes care within the community, secondary care settings and the interplay between them • Able to demonstrate experience of working within MDTs to provide diabetes care with evidence of leadership • Demonstrates ability to screen for, diagnose, prevent and manage diabetes related complications • Is actively involved in structured education for people with

	diabetes, demonstrating an ethos of patient centred care and shared decision making • Shows ability to work at a population level to prevent diabetes • Demonstrates competence with technologies to monitor glucose, deliver insulin and manage diabetes at individual and population levels
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills • history taking, diagnosis and medical management; consent • humane interventions; prescribing medicines safely • using medical devices safely; • infection control and communicable disease Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in Iceland Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement

Evidence to inform decision	SCE / European Board Examination in Endocrinology Mini-CEX CBD MCR MSF including MDT members ES report Attendance at courses Publications
2. Providing diagnosis, support and management for people with diabetic foot disease	
Descriptors	• Shows experience of working within multidisciplinary systems across primary and secondary care to manage people with diabetic foot disease • Demonstrates understanding of preventative strategies for diabetic foot disease • Able to demonstrate ability to select appropriate investigations and treatment of diabetic foot disease
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills • history taking, diagnosis and medical management; consent • humane interventions; prescribing medicines safely

	• using medical devices safely; • infection control and communicable disease Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in Iceland Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement
Evidence to inform decision	SCE / European Board Examination in Endocrinology CBD Mini-CEX MCR MSF including MDT members ES report

3. Providing diagnosis, support and management for women with diabetes and endocrine disorders in the perinatal period	
Descriptors	• Demonstrates ability to work with teams and systems to optimise women's health before pregnancy with diabetes and endocrine disorders • Demonstrates understanding of physiological changes that occur during pregnancy • Demonstrates ability to diagnose and manage endocrine disorders during pregnancy and manage pre-existing endocrine conditions • Demonstrates ability to diagnose and manage diabetes during pregnancy • Shows understanding of safety considerations when investigating women during pregnancy and prescribing drugs • Demonstrates ability to optimise maternal treatments to achieve best foetal outcomes • Demonstrates experience in the use of technologies to safely and effectively manage women during pregnancy and the perinatal period
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills • history taking, diagnosis and medical management; consent • humane interventions; prescribing medicines safely • using medical devices safely; • infection control and communicable disease Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in Iceland
	Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence to inform decision	SCE / European Board Examination in Endocrinology CBD Mini-CEX MCR MSF including MDT members ES report

4. Providing diagnosis, support and management of diabetes and endocrine disorders in adolescents and young adults (AYA)	
Descriptors	• Demonstrates knowledge of physical, psychological, social, sexual & educations/vocational development of AYA both in health and in the context of co existent diabetes & endocrine conditions • Shows understanding of how to deliver developmentally appropriate healthcare across outpatient and inpatient settings and aspects of care that improve transition to adult services • Demonstrates knowledge and understanding of rights & legislation of AYA, including confidentiality and employment rights • Shows ability to discuss heritability of diabetes and endocrine disorders with patients and families • Shows ability to recognise safeguarding concerns and respond effectively involving statutory agencies as required • Demonstrates ability to identify and respond to evidence of risk & resilience including mental health, exploratory behaviours, weight, gender identity, sexuality, relationships, sexual health, contraception, and embed generic health education and health promotion during consultations • Able to show evidence of recognition of the impact of diabetes & endocrine conditions on family/ carers • Demonstrates knowledge of the aspects that enhance care during transition and transfer between paediatric and adult services
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills • history taking, diagnosis and medical management; consent • humane interventions; prescribing medicines safely • using medical devices safely • infection control and communicable disease Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in Iceland

	Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups

Evidence to inform decision	SCE / European Board Examination in Endocrinology ES reports MCR Patient survey CBD Mini-CEX Attendance at teaching and training events
5. Providing diagnosis, support and management for people with endocrine disorders in the outpatient and ambulatory settings	
Descriptors	• Shows evidence of expertise of diagnosis and management of endocrine disorders in the outpatient and ambulatory setting • Demonstrates ability to select, supervise and interpret most appropriate static and dynamic laboratory investigations to investigate and monitor endocrine disease • Shows understanding of selecting and interpreting imaging investigations to investigate and monitor endocrine disease • Demonstrates experience of developing guidelines and policies for the management of endocrine disease, with demonstration of the understanding of quality management • Shows evidence of working within MDTs for the management of endocrine disease, with evidence of leadership
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills • history taking, diagnosis and medical management; consent • humane interventions; prescribing medicines safely • using medical devices safely • infection control and communicable disease Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in Iceland Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship

Evidence to inform decision	SCE / European Board Examination in Endocrinology MCR ES report Mini-CEX CBD
6. Providing support and management of diabetes and endocrine disorders in the perioperative period	
Descriptors	• Demonstrates experience and competence in the management of endocrine disorders in the perioperative period. This includes surgery on endocrine glands and surgery elsewhere in a person with pre-existing endocrine disease • Demonstrates experience and competence in the safe management of diabetes in the perioperative period to ensure the best outcomes • Demonstrates understanding of the perioperative management of a person undergoing surgery for obesity • Able to show experience and competence in working within MDTs to manage endocrine disease and diabetes in the perioperative period, with evidence of leadership • Shows evidence of understanding of quality management, with experience in developing guidelines and policies
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills • history taking, diagnosis and medical management; consent • humane interventions; prescribing medicines safely • using medical devices safely • infection control and communicable disease Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in Iceland Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship

Evidence to inform decision	SCE / European Board Examination in Endocrinology Mini-CEX CBD MCR MSF ES report
7. Providing support and management of people with diabetic and endocrine emergencies including management of these conditions during acute illness	
Descriptors	• Shows evidence of experience and competence in the diagnosis and management of endocrine disease in emergencies and during acute illness and inpatient admissions • Demonstrates evidence of collaboration with multiprofessional and multidisciplinary teams to manage endocrine emergencies • Shows evidence of collaboration with primary care in managing and preventing endocrine emergencies, with safe discharge planning • Competently able to manage diabetic emergencies and diabetes during acute illness in the community and inpatient admissions • Demonstrates leadership in developing and quality assuring systems to prevent and manage diabetic and endocrine emergencies
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills: • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty clinical skills • history taking, diagnosis and medical management; consent • humane interventions; prescribing medicines safely • using medical devices safely • infection control and communicable disease Domain 3: Professional knowledge • professional requirements • national legislation • the health service and healthcare systems in Iceland Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups

Evidence to inform decision	SCE / European Board Examination in Endocrinology Mini-CEX CBD MCR ES report

3.5 Presentations and conditions

The table below details the key presentations and conditions of the specialty. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate CiPs and GPCs. In this spiral curriculum, trainees will expand and develop the knowledge, skills and attitudes around managing patients with these conditions and presentations. The patient should always be at the centre of knowledge, learning and care.

Trainees must demonstrate core bedside skills, including information gathering through history and physical examination and information sharing with patients, families and colleagues.

Treatment care and strategy covers how a doctor selects drug treatments or interventions for a patient. It includes discussions and decisions as to whether care is focused mainly on curative intent or whether the main focus is on symptomatic relief. It also covers broader aspects of care, including involvement of other professionals or services.

Particular presentations, conditions and issues are listed either because they are common or serious (having high morbidity, mortality and/or serious implications for treatment or public health).

For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Conditions/ issues	Expectations
Newly diagnosed diabetes	Good understanding of diagnostic criteria for diabetes and managing diagnostic uncertainty/the need to reassess diagnostic category. Good understanding of the diagnostic tests available to establish aetiology, including biochemical, immunological and genetic Managing a person with newly diagnosed type 1 diabetes mellitus using an MDT approach Managing a person with newly diagnosed type 2 diabetes in collaboration with primary/community teams and signposting to diabetes remission Arranging specialty input for those with rarer forms of diabetes

Patient education and empowerment	Participation in accredited patient education programs e.g. insulin pump induction Obtain formal qualification relevant to delivering effective teaching and empowering of patients
Diabetes prevention	Understanding of and participation in diabetes prevention programmes Understanding data analysis at a population level and how large-scale diabetes prevention strategies work
Managing diabetes in the ambulatory setting	Using technology to manage diabetes at individual and population levels Competence in technologies to monitor glucose and deliver insulin or other drugs Competence in remote consultation skills

Conditions/ issues	Expectations
	Working with and understanding leadership of community-based systems to manage diabetes Screening for and managing complications of diabetes Managing diabetes in people with learning difficulties
Managing diabetes in special situations	Managing diabetes before, during and after pregnancy Managing diabetes in young adults Managing diabetes during renal replacement therapies
Managing diabetes in hospital inpatients	Managing diabetic emergencies Managing diabetes during non-diabetic acute illness Leadership of inpatient diabetes MDTs Working in conjunction with community-based services to provide joined up care for inpatients with diabetes
Managing diabetes in frailty	Working with MDTs to optimise diabetes treatments in frailty in the inpatient and community settings including residential/ nursing homes
Managing diabetes towards the end of life	Working with MDTs including palliative care teams to manage diabetes towards end of life
Race/ethnicity/culture	Understanding of racial variations in diabetes and endocrine disease, including presentation, complications and management Understanding of cultural variations and how cultural differences can impact on diabetes care and endocrine disease; provide culturally appropriate and inclusive care
Disabilities and learning difficulties	Understanding of the impact of disabilities on people living with diabetes and endocrine disorders and providing appropriate care Understanding the impact of learning difficulties on people living with diabetes and endocrine disorders and providing appropriate care
Thyroid	Hyperthyroidism – managing hyperthyroid disorders caused by autoimmune disease, nodular goitres, drugs and less common causes Hypothyroidism – managing hypothyroid disorders caused by autoimmunity, iatrogenic causes, drug induced and other systemic disease Managing people with functioning lesions of the thyroid or those that are neoplastic in nature

Pituitary	Managing functioning and non-functioning pituitary and hypothalamic lesions such as developmental lesions, neoplasia and due to other causes, working with MDTs Managing pituitary and hypothalamic disorders of functional consequences such as due to treatments of lesions associated with these organs, treatments for other systemic disease including cancers, hypophysitis and other causes such as trauma
Pancreas	Managing pancreatic lesions that are functioning or non-functioning, working with MDTs Managing neuroendocrine disorders of the pancreas, working with MDTs
Neuroendocrine tumours	Managing functioning and non-functioning neuroendocrine tumours, working with MDTs
Calcium and metabolic bone disorders	Managing hypercalcaemia due to parathyroid disease, cancers elsewhere, systemic disease and drugs Managing hypocalcaemia due to parathyroid disease, iatrogenic causes and drugs Managing people with parathyroid tumours Managing people with metabolic bone disease including conditions such as congenital disorders affecting bone, mineral disorders, disorders of bone density and Pagets disease
Reproductive disorders	Managing female gonadal and reproductive disorders such as- Delayed puberty Menstrual irregularities

Conditions/ issues	**Expectations**
	Polycystic ovarian syndrome Tumours of functional significance Chromosomal abnormalities Endocrine causes of subfertility and hormone replacement therapy Managing male gonadal and reproductive disorders such as- Delayed puberty Hypogonadism Chromosomal abnormalities Subfertility
Sexual differentiation, gender-incongruent and gender dysphoria	Managing people with disorders of sexual differentiation and gender diverse people working with MDTs and supporting appropriate hormone treatments Understand the cultural sensitivity of healthcare for gender nonconforming people; develop the knowledge, skills and attitudes to provide appropriate, sensitive and supportive care for gender nonconforming individuals Understand the assessment, prescribing and monitoring processes; the role of an endocrinologist as part of the multi-disciplinary approach if hormone treatment is requested Understand the fertility options for transgender people Signposting recommendations about sexual health and screening for transgender individuals Advising primary care practitioners about adjustment of cross-sex hormone therapy for transgender individuals after they have completed their gender transition and been discharged from LUH transgender service

Obesity	Developing and providing care for people living with obesity that improves metabolic, cardiovascular, mental and physical health outcomes Understanding the widespread nature of obesity stigma and its negative consequences on patients and the doctor-patient relationship Initiating discussions related to obesity; conducting the consultation and management in a non-stigmatising manner Understanding and being able to implement various weight management strategies including lifestyle behavioural interventions, dietary interventions, pharmacotherapy and bariatric surgery, working with MDTs
Underweight disorders or eating disorders	Managing disorders of being underweight due to systemic disease Managing endocrine sequelae of eating disorders such as anorexia and bulimia Managing diabetes in the context of eating disorders
Managing lipid disorders	Investigating and managing primary and secondary lipid disorders
Managing spontaneous hypoglycaemia	Investigating and managing disorders causing hypoglycaemia including hypoadrenalism, hypopituitarism, insulinomas and other rarer disorders
Managing electrolyte abnormalities	Investigating and managing electrolyte abnormalities including disorders of sodium, potassium, magnesium, phosphate in the inpatient and ambulatory settings
Endocrine disorders in people living beyond cancer	Investigating, treating and following up survivors of cancer with endocrine disorders, working with MDTs
Endocrine disease in systemic disorders	Managing endocrine disease in systemic disorders such as SLE, HIV, tuberculosis and preferable sickle cell disease (not limited to these conditions)
Familial disorders and genomics	Managing syndromes/ familial diabetes and endocrine disorders Appropriate history taking in and investigating suspected inherited disorders Selecting appropriate genetic testing for patients Post-test counselling, follow up and family screening Multidisciplinary approach to familial/ syndromic disorders Have a working understanding of the genomic curriculum

3.6 Practical procedures

There are no practical procedures that are mandatory for training in endocrinology and diabetes.

3.6.1 Thyroid ultrasound and Thyroid Fine Needle Aspiration

While not mandatory the trainee should aim to gain experience in t ultrasound of the thyroid. This would involve the ability to differentiate common disorders such as thyroiditis, Graves´ disease and multinodular goitre with the ability to classify nodules according to common evaluations systems such as TIRADS[8]. Experience in performing ultrasound guided fine needle aspirations of thyroid nodules is an advantage.

4. Learning and Teaching

4.1 The training programme

The organisation and delivery of postgraduate training in Endocrinology and diabetes in Iceland is the responsibility of the Chief Medical Officer at Landspitali, The National University Hospital of Iceland (LUH). Its governance is according to Regulation No 0856-2023[2]. and delivered in accordance with the Icelandic Reference Guides for Core Medical Training and LUH Human Resources Management principles. In addition to rotations at LUH, trainees should spend a minimum of 12 months at a rotation in a university hospital outside of Iceland.

Progression through the programme will be determined by the Annual Review of Competency Progression (ARCP) process and the training requirements for each indicative year of training are summarised in the ARCP decision aid for EDM in Iceland.

The sequence of training should ensure appropriate progression in experience and responsibility. The training to be provided at each training site is defined to ensure that, during the programme, the curriculum requirements are met, and that unnecessary duplication and educationally unrewarding experiences are avoided.

Trainees will have an appropriate clinical supervisor and a named educational supervisor. The clinical supervisor and educational supervisor may be the same person. It will be best practice for trainees to have an educational supervisor who practises internal medicine for periods of IM stage 2 training and an educational supervisor who practises EDM thereafter. Educational supervisors of IM trainees who do not themselves practise IM must take particular care to ensure that they obtain and consider detailed feedback from clinical supervisors who are knowledgeable about the trainees' IM performance and include this in their educational reports.

The following provides a guide on how training programmes should be focussed in order for trainees to gain the experience and develop the capabilities to the level required.

Endocrinology and diabetes is a group 1 specialty, dually training with Internal Medicine in the UK. In Iceland trainees enter training in EDM after completion of IM stage 2 at ST6. Graduates of the programme will be able to practice independently as specialists in EDM and IM. The specialist curriculum is designed to ensure this and is demanding. It is likely that training programs will need to be redesigned to enable trainees to acquire all the required competencies in the available training time.

4.2 Teaching and learning methods

The curriculum will be delivered through a variety of learning experiences and will achieve the capabilities described in the syllabus through a variety of learning methods. There will be a

balance of different modes of learning from formal teaching programmes to experiential learning 'on the job'. The proportion of time allocated to different learning methods may vary depending on the nature of the attachment within a rotation.

This section identifies the types of situations in which a trainee will learn.

Specialist clinics:
As a predominantly clinic-based specialty, it is expected that much of the training is acquired in clinics under supervision, progressing to independent capabilities. The level of autonomy will depend on progress made and set in conjunction with supervisors. Minimum clinic numbers in certain specialised areas may be stipulated in the ARCP decision aid.

Supervision of endocrine testing:
Selecting, supervising and interpreting the most appropriate static and dynamic tests is an essential part of training in the specialty. Trainees may acquire various levels of competency in different training sites due to service variations. Trainees should work with MDTs and laboratories to gain a rounded understanding of these investigations.

Clinical Biochemistry:
A clear understanding of the limitations of biochemical methodologies and assays is an integral part endocrine practice. Training should preferably include a period of formal attachment to a Clinical Biochemistry Service.

Inpatient referrals management:
Collaboration with other specialties is part of the central ethos of EDM. Trainees should become progressively more independent in providing specialist opinions for patients irrespective of their admitting presentation. They should also progressively be more competent to lead inpatient MDTs providing specialist care unsupervised.

Accredited structured education programs for diabetes:
Trainees should be formally qualified in accredited structured education programmes as required in the ARCP decision aid.

Management training:
In the modern health care system in Iceland, consultants add value by being effective managers, from managing small teams to leading larger scale projects. Trainees are required to gain management experience throughout their training through similar processes as acquisition of clinical competencies. This can be consolidated towards the end of training by attending a management course as set out in the decision aid.

Conferences:
Attending and presenting at regional, national and international conferences is strongly encouraged. Depending on the training trajectory, certain conferences in addition to core

specialty meetings may be required. This should be discussed with the educational supervisors. Minimum attendance at conferences may be set out in the ARCP decision aid.

Reviewing patients with consultants

It is important that trainees have an opportunity to present at least a proportion of the patients whom they have taking care of to their consultant for senior review in order to obtain immediate feedback into their performance (that may be supplemented by an appropriate WBA such as a mini-CEX or CBD). This may be accomplished when working on a take shift along with a consultant, in an outpatient setting with a consultant or other clinical settings.

Personal ward rounds and provision of ongoing clinical care on specialist medical ward attachments

Every patient seen during consultation services, whether as an inpatient or as an outpatient, provides a learning opportunity, which will be enhanced by following the patient through the course of their illness. The experience of the evolution of patients' problems over time is a critical part both of the diagnostic process as well as management. Patients seen should provide the basis for critical reading and reflection on clinical problems.

Participating in MDTs

In both Endocrinology and Diabetes, MDT working is essential for safe, effective and efficient care delivery. Trainees through their training should be more than passive observers. It is important for them to gain skills in leading MDTs with varying degrees of supervision, leading up to unsupervised practice. Trainees should also acquire skills necessary to use technology to enable remote working as necessary.

Formal postgraduate teaching

The content of these sessions is determined by the local faculty of medical education and will be based on the curriculum. There are many opportunities throughout the year for formal teaching in the local postgraduate teaching sessions and at regional, national and international meetings.

Suggested activities include:

- A programme of formal protected regular teaching sessions to cohorts of trainees
- Case presentations
- Research, audit and quality improvement projects
- Lectures and small group teaching
- Clinical skills demonstrations and teaching
- Critical appraisal and evidence-based medicine and journal clubs
- Joint specialty meetings
- Attendance at training programmes organised on a deanery or regional basis, which are designed to cover aspects of the training programme outlined in this curriculum.

Learning with peers
While there are many opportunities for trainees to learn with their peers this poses a practical challenge in Iceland. Maintaining links with the IM program, participating in journal clubs, case presentations in small groups etc will be paramount here.

Independent self-directed learning
Trainees will use this time in a variety of ways depending upon their stage of learning.
Suggested activities include:

- Reading, including web-based material such as e-Learning for Healthcare (e-LfH)
- Maintenance of personal portfolio (self-assessment, reflective learning, personal development plan)
- Reading journals
- Achieving personal learning goals beyond the essential, core curriculum

Formal study courses
Time to be made available for formal courses is encouraged, subject to local conditions of service. Examples include management and leadership courses and communication courses, which are particularly relevant to patient safety and experience.

4.3 Academic training

The specialty has a rich tradition of research and innovation. This is strongly encouraged during training but will depend upon local opportunities and e.g. funding. Some trainees may opt to do research leading to a higher degree. This curriculum should not impact in any way on the facility to take time out of programme for research (OOPR). This requires discussion between the trainee, the TPD and LUH as to what is appropriate together with guidance from the appropriate Head of Postgraduate Education that the proposed period and scope of study is sensible.

4.4 Taking time out of programme

There are a number of circumstances when a trainee may seek to spend some time out of specialty training, such as undertaking a period of research or taking up a fellowship post. All such requests must be agreed by the postgraduate dean in advance and trainees are advised to discuss their proposals as early as possible. Full guidance on taking time out of programme can be found in the Gold Guide.

4.5 Acting up as a consultant

A trainee coming towards the end of their training may spend up to three months during their last year of training “acting-up” as a EDM consultant. This period would be evidence of competency, count towards the formal training period and commented upon in the final Educational Supervisor´s report. This might include providing an out of hours consultation

service in which case a named formal backup Consultant Endocrinologist should always be available.

5 Programme of Assessment

5.1 Purpose of assessment

The purpose of the programme of assessment is to:

- Assess trainees' actual performance in the workplace
- Enhance learning by providing formative assessment, enabling trainees to receive immediate feedback, understand their own performance and identify areas for development
- Drive learning and enhance the training process by making it clear what is required of trainees and motivating them to ensure they receive suitable training and experience
- Demonstrate trainees have acquired the GPCs and meet the requirements of GMP
- Ensure that trainees possess the essential underlying knowledge required for the specialty
- Provide robust, summative evidence that trainees are meeting the curriculum standards during the training programme
- Inform the ARCP, identifying any requirements for targeted or additional training where necessary and facilitating decisions regarding progression through the training programme
- Identify trainees who should be advised to consider changes of career direction.

5.2 Programme of Assessment

The programme of assessment refers to the integrated framework of exams, assessments in the workplace and judgements made about a learner during their approved programme of training. The purpose of the programme of assessment is to robustly evidence, ensure and clearly communicate the expected levels of performance at critical progression points in, and to demonstrate satisfactory completion of training as required by the curriculum.

The programme of assessment is comprised of several different individual types of assessment. A range of assessments is needed to generate the necessary evidence required for global judgements to be made about satisfactory performance, progression in, and completion of, training. All assessments, including those conducted in the workplace, are linked to the relevant curricular learning outcomes (e.g. through the blueprinting of assessment system to the stated curricular outcomes).

The programme of assessment emphasises the importance and centrality of professional judgement in making sure learners have met the learning outcomes and expected levels of performance set out in the approved curricula. Assessors will make accountable professional

judgements. The programme of assessment includes how professional judgements are used and collated to support decisions on progression and satisfactory completion of training.

The assessments will be supported by structured feedback for trainees. Assessment tools will be both formative and summative and have been selected on the basis of their fitness for purpose.

Assessment will take place throughout the training programme to allow trainees continually to gather evidence of learning and to provide formative feedback. Those assessment tools which are not identified individually as summative will contribute to summative judgements about a trainee's progress as part of the programme of assessment. The number and range of these will ensure a reliable assessment of the training relevant to their stage of training and achieve coverage of the curriculum.

Reflection and feedback should be an integral component to all SLEs and WBPAs. In order for trainees to maximise benefit, reflection and feedback should take place as soon as possible after an event. Every clinical encounter can provide a unique opportunity for reflection and feedback and this process should occur frequently. Feedback should be of high quality and should include an action plan for future development for the trainee. Both trainees and trainers should recognise and respect cultural differences when giving and receiving feedback.

5.3 Assessment of CiPs

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks.

Clinical supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. This feedback will include a global rating in order to indicate to the trainee and their educational supervisor how they are progressing at that stage of training. To support this, workplace-based assessments and multiple consultant reports will include global assessment anchor statements.

Global assessment anchor statements

- Below expectations for this year of training; may not meet the requirements for critical progression point
- Meeting expectations for this year of training; expected to progress to next stage of training
- Above expectations for this year of training; expected to progress to next stage of training

Towards the end of the training year, trainees will make a self-assessment of their progression for each CiP and record this in the eportfolio with signposting to the evidence to support their rating.

The educational supervisor (ES) will review the evidence in the eportfolio including workplace-based assessments, feedback received from clinical supervisors (via the Multiple Consultant Report) and the trainee's self-assessment and record their judgement on the trainee's performance in the ES report, with commentary.

For **generic CiPs**, the ES will indicate whether the trainee is meeting expectations or not using the global anchor statements above. Trainees will need to be meeting expectations for the stage of training as a minimum to be judged satisfactory to progress to the next training year.

For **clinical and specialty CiPs**, the ES will make an entrustment decision for each CiP and record the indicative level of supervision required with detailed comments to justify their entrustment decision. The ES will also indicate the most appropriate global anchor statement (see above) for overall performance.

Level descriptors for clinical and specialty CiPs

Level	Descriptor
Level 1	**Entrusted to observe only** – no provision of clinical care
Level 2	**Entrusted to act with direct supervision**: The trainee may provide clinical care, but the supervising physician is physically within the hospital or other site of patient care and is immediately available if required to provide direct bedside supervision
Level 3	**Entrusted to act with indirect supervision**: The trainee may provide clinical care when the supervising physician is not physically present within the hospital or other site of patient care, but is available by means of telephone and/or electronic media to provide advice, and can attend at the bedside if required to provide direct supervision
Level 4	**Entrusted to act unsupervised**

The ARCP will be informed by the ES report and the evidence presented in the eportfolio. The ARCP panel will make the final summative judgement on whether the trainee has achieved the generic outcomes and the appropriate level of supervision for each CiP. The ARCP panel will determine whether the trainee can progress to the next year/level of training in accordance with the Gold Guide (Gullbókin). ARCPs will be held for each training year. The final ARCP will ensure trainees have achieved level 4 in all CiPs for the critical progression point at completion of training.

5.4 Critical progression points

In addition to acquiring competencies to level 4 competency, trainees should have successfully passed the SCE examination in endocrinology and diabetes or the European Board Examination in Endocrinology. Trainees will be required to be entrusted at level 4 in all CiPs in order to achieve an ARCP outcome 6 and be recommended for a CCT.

The educational supervisor report will make a recommendation to the ARCP panel as to whether the trainee has met the defined levels for the CiPs and acquired the procedural competence required for each year of training. The ARCP panel will make the final decision on whether the trainee can be signed off and progress to the next year/level of training [see section 5.6].

The outline grids below set out the expected level of supervision and entrustment for the specialty CiPs and include the critical progression points across the whole training programme.

Table 2: Outline grid of levels expected for Endocrinology and Diabetes Mellitus specialty capabilities in practice (CiPs)

Levels to be achieved by the end of each training year for specialty CiPs - The level achievable in each year may be determined by the structure of the individual's training rotation. Some trainees may be at a level 3 in some of the CiPs prior to ST7.

Level descriptors
Level 1: Entrusted to observe only – no clinical care
Level 2: Entrusted to act with direct supervision
Level 3: Entrusted to act with indirect supervision
Level 4: Entrusted to act unsupervised.

Specialty CiP	ST6	ST7	ST8	Critical Progression Point
1. Providing diagnosis and management of diabetes mellitus as a long-term condition in outpatient, ambulatory or community settings	**2**	**3**	**4**	
2. Providing diagnosis, support and management for people with diabetic foot disease	**2**	**3**	**4**	

3. Providing diagnosis, support and management for women with diabetes and endocrine disorders in the perinatal period	**2**	**3**	**4**
4. Providing diagnosis, support and management of diabetes and endocrine disorders in adolescents and young adults (AYA)	**2**	**3**	**4**
5. Providing diagnosis, support and management for people with endocrine disorders in the outpatient and ambulatory settings	**2**	**3**	**4**
6. Providing support and management of diabetes and endocrine disorders in the perioperative period	**2**	**3**	**4**
7. Providing support and management of people with diabetic and endocrine emergencies including management of these conditions during acute illness	**2**	**3**	**4**

5.5 Evidence of progress

The following methods of assessment will provide evidence of progress in the integrated programme of assessment. The requirements for each training year/level are stipulated in the ARCP decision aid.

Summative assessment

Examinations and certificates

- Valid Advanced Life Support Certificate (ALS)
- Specialty Certificate Examination (SCE) in endocrinology and diabetes (UK) or European Board Examination in Endocrinology.

Formative assessment

Supervised Learning Events (SLEs)

- Case-Based Discussions (CbD)
- mini-Clinical Evaluation Exercise (mini-CEX)

Workplace-based assessment (WPBA)

- Multi-Source Feedback (MSF)
- Patient Survey (PS) - optional
- Quality Improvement Project Assessment Tool (QIPAT)
- Teaching Observation (TO)
- Direct Observation of Procedural Skills (DOPS) FNA - formative (optional)

Supervisor reports

- Multiple Consultant Report (MCR)
- Educational Supervisor Report (ESR)

These methods are described briefly below. More information and guidance for trainees and assessors are available in the eportfolio and on the JRCPTB website (www.jrcptb.org.uk).

Assessment should be recorded in the trainee's eportfolio. These methods include feedback opportunities as an integral part of the programme of assessment.

Acute Care Assessment Tool (ACAT)

The ACAT is designed to assess and facilitate feedback on a doctor's performance during their practice on the acute medical take. It is primarily for assessment of their ability to prioritise, to work efficiently, to work with and lead a team, and to interact effectively with nursing and other colleagues. It can also be used for assessment and feedback in relation to care of individual patients. Any doctor who has been responsible for the supervision of the acute medical take can be the assessor for an ACAT. There are no mandatory ACAT requirements for EDM, only IM.

Case-based Discussion (CbD)

The CbD assesses the performance of a trainee in their management of a patient to provide an indication of competence in areas such as clinical reasoning, decision-making and application of medical knowledge in relation to patient care. It also serves as a method to document conversations about, and presentations of, cases by trainees. The CbD should focus on a written record (such as written case notes, out-patient letter, and discharge summary). A typical encounter might be when presenting newly referred patients in the out-patient department.

mini-Clinical Evaluation Exercise (mini-CEX)

This tool evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as history taking, examination and clinical reasoning. The trainee receives immediate feedback to aid learning. The mini-CEX can be used at any time and in any setting when there is a trainee and patient interaction, and an assessor is available.

Direct Observation of Procedural Skills (DOPS)

A DOPS is an assessment tool designed to evaluate the performance of a trainee in undertaking a practical procedure, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development. DOPS can be undertaken as many times as the trainee and their supervisor feel is necessary (formative). A trainee can be regarded as competent to perform a procedure independently after they are signed off as such by an appropriate assessor (summative). There are no mandatory DOPS requirements for EDM, only IM.

Multi-source feedback (MSF)

This tool is a method of assessing generic skills such as communication, leadership, team working, reliability etc, across the domains of Good Medical Practice. This provides systematic collection and feedback of performance data on a trainee, derived from a number of colleagues. 'Raters' are individuals with whom the trainee works, and includes doctors, administrative staff, and other allied professionals. Raters should be agreed with the educational supervisor at the start of the training year. The trainee will not see the individual responses by raters. Feedback is given to the trainee by the Educational Supervisor.

Patient Survey (PS)

A trainee's interaction with patients should be continually observed and assessed. The Patient Survey provides a tool to assess a trainee during a consultation period. The Patient Survey assesses the trainee's performance in areas such as interpersonal skills, communication skills and professionalism.

Quality Improvement Project Assessment Tool (QIPAT)

The QIPAT is designed to assess a trainee's competence in completing a quality improvement project. The QIPAT can be based on review of quality improvement project documentation or on a presentation of the quality improvement project at a meeting. If possible, the trainee should be assessed on the same quality improvement project by more than one assessor.

Teaching Observation (TO)

The TO form is designed to provide structured, formative feedback to trainees on their competence at teaching. The TO can be based on any instance of formalised teaching by the trainee which has been observed by the assessor. The process should be trainee-led (identifying appropriate teaching sessions and assessors).

Supervisors' reports

Multiple Consultant Report (MCR)

The MCR captures the views of consultant supervisors based on observation on a trainee's performance in practice. The MCR feedback and comments received give valuable insight into how well the trainee is performing, highlighting areas of excellence and areas of support

required. MCR feedback will be available to the trainee and contribute to the educational supervisor's report.

Educational supervisors report (ESR)
The ES will periodically (at least annually) record a longitudinal, global report of a trainee's progress based on a range of assessment, potentially including observations in practice or reflection on behaviour by those who have appropriate expertise and experience. The ESR will include the ES's summative judgement of the trainee's performance and the entrustment decisions given for the learning outcomes (CiPs). The ESR can incorporate commentary or reports from longitudinal observations, such as from supervisors (MCRs) and formative assessments demonstrating progress over time.

Specialty Certificate Examination (SCE- UK) / European Board Examination in Endocrinology
The Specialty Certificate Examination has been developed by the Federation of Royal Colleges of Physicians. This examination aims to assess knowledge relevant for a consultant endocrinologist and is designed to be undertaken by the trainee prior to the end of the ST8 year. To gain a CCT in Endocrinology and Diabetes Mellitus, the trainee must pass this examination or the European Board Examination in Endocrinology and be able to demonstrate adequate application of this knowledge in the clinical setting, with evidence for this coming principally from supervisors' reports and work-place based assessments.

5.6 Decisions on progress (ARCP)

The decisions made at critical progression points and upon completion of training should be clear and defensible. They must be fair and robust and make use of evidence from a range of assessments, potentially including exams and observations in practice or reflection on behaviour by those who have appropriate expertise or experience. They can also incorporate commentary or reports from longitudinal observations, such as from supervisors or formative assessments demonstrating progress over time.

Periodic (at least annual) review should be used to collate and systematically review evidence about a doctor's performance and progress in a holistic way and make decisions about their progression in training. The annual review of progression (ARCP) process supports the collation and integration of evidence to make decisions about the achievement of expected outcomes.

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks, as do decisions about the satisfactory completion of presentations/conditions and procedural skills set out in this curriculum. The outline grid in section 5.4 sets out the level of supervision expected for each of the clinical and specialty CiPs. The requirements for each year of training are set out in the Icelandic ARCP decision aid for EDM.

The ARCP process is described in the Icelandic Gold Guide. The Head of Postgraduate Medical Education is responsible for organising the ARCP process. The evidence to be reviewed by ARCP panels should be collected in the trainee's eportfolio.

As a precursor to ARCPs, it is strongly recommended that trainees have an informal eportfolio review either with their educational supervisor or an external assessor arranged by the Training Programme Director. These provide opportunities for early detection of trainees who are failing to gather the required evidence for ARCP.

The penultimate ARCP prior to the anticipated CCT date will include an external assessor from outside the training programme. This is known as a Penultimate Year Assessment (PYA) and will identify any outstanding targets that the trainee will need to complete to meet all the learning outcomes.

In order to guide trainees, supervisors and the ARCP panel, an ARCP decision aid, based on the JRCPTB decision aid for endocrinology and diabetes, has been produced. This sets out the requirements for a satisfactory ARCP outcome at the end of each training year and critical progression point. The ARCP decision aid is available on the webside for Postgraduate Medical Education in Iceland (https://www.landspitali.is/fagfolk/menntun/sernam-laekna/)

5.7 Assessment blueprint

The table below show the possible methods of assessment for each CiP. It is not expected that every method will be used for each competency and additional evidence may be used to help make a judgement on capability.

KEY

ACAT	Acute care assessment tool	CbD	Case-based discussion
DOPS	Direct observation of procedural skills	MiniCEX	Mini-clinical evaluation exercise
MCR	Multiple consultant report	MSF	Multi source feedback
PS	Patient survey	QIPAT	Quality improvement project assessment tool
SCE	Specialty Certificate Examination	TO	Teaching observation

Blueprint of assessments mapped to the Endocrinology and Diabetes CiPs

Endocrinology and Diabetes Mellitus specialty CiPs	

Learning outcomes	ACAT	CbD	DOPS	MCR	Mini -CEX	MSF	PS	QIPAT	TO	SCE or comparable
1. Providing diagnosis and management of diabetes mellitus as a long-term condition in outpatient, ambulatory or community settings	√	√			√			√		√
2. Providing diagnosis, support and management for people with diabetic foot disease	√	√			√	√		√	√	√
3. Providing diagnosis, support and management for women with diabetes and endocrine disorders in the perinatal period	√	√			√	√		√	√	√
4. Providing diagnosis, support and management of diabetes and endocrine disorders in adolescents and young adults (AY)	√	√			√			√	√	√
5. Providing diagnosis, support and management for people with endocrine disorders in the outpatient and ambulatory settings		√			√		√	√	√	√
6. Providing support and management of diabetes and endocrine disorders in the perioperative period	√	√	√		√			√	√	√
7. Providing support and management of people with diabetic and endocrine emergencies including management of these conditions during acute illness	√	√			√			√	√	√

6. Supervision and feedback

This section of the curriculum describes how trainees will be supervised, and how they will receive feedback on performance. For further information please refer to the AoMRC guidance on Improving feedback and reflection to improve learning[9].

Access to high quality, supportive and constructive feedback is essential for the professional development of the trainee. Trainee reflection is an important part of the feedback process and exploration of that reflection with the trainer should ideally be a two-way dialogue. Effective feedback is known to enhance learning and combining self-reflection to feedback promotes deeper learning.

Trainers should be supported to deliver valuable and high-quality feedback. This can be by providing face to face training to trainers. Trainees would also benefit from such training as they frequently act as assessors to junior doctors, and all involved could also be shown how best to carry out and record reflection.

6.1 Supervision

All elements of work in training posts must be supervised with the level of supervision varying depending on the experience of the trainee and the clinical exposure and case mix undertaken. Outpatient and referral supervision must routinely include the opportunity to discuss all cases with a supervisor if appropriate. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient.

Teaching institutions must make sure that each doctor in training has access to a named clinical supervisor and a named educational supervisor. Depending on local arrangements these roles may be combined into a single role of educational supervisor. However, it is preferred that a trainee has a single named educational supervisor for (at least) a full training year, in which case the clinical supervisor is likely to be a different consultant during some placements.

The role and responsibilities of supervisors have been defined by the GMC in UK in their standards for medical education and training[10].

Educational supervisor
The educational supervisor is responsible for the overall supervision and management of a doctor's educational progress during a placement or a series of placements. The educational supervisor regularly meets with the doctor in training to help plan their training, review progress and achieve agreed learning outcomes. The educational supervisor is responsible for the educational agreement, and for bringing together all relevant evidence to form a summative judgement about progression at the end of the placement or a series of placements.

Clinical supervisor

Consultants responsible for patients that a trainee looks after, providing clinical supervision for that trainee and thereby contribute to their training. They may also contribute to assessment of their performance by completing a 'Multiple Consultant Report (MCR)' and other WPBAs. A trainee may also be allocated (for instance, if they are not working with their educational supervisor in a particular placement) a named clinical supervisor, who is responsible for reviewing the trainee's training and progress during a particular placement. It is expected that a named clinical supervisor will provide a MCR for the trainee to inform the Educational Supervisor's report.

The educational and (if relevant) clinical supervisors, when meeting with the trainee, should discuss issues of clinical governance, risk management and any report of any untoward clinical incidents involving the trainee. If the service lead has any concerns about the performance of the trainee, or there are issues of doctor or patient safety, these would be discussed with the clinical and educational supervisors (as well as the trainee). These processes, which are integral to trainee development, must not detract from the statutory duty of the trust to deliver effective clinical governance through its management systems.

Educational and clinical supervisors should have attended appropriate supervision training, such as the training provided by the Faculty of Medical Education (Faghópur um handleiðslu) in Iceland in collaboration with the Education Department at the Royal College of Physicians of London according to national and GMC standards. It is essential that training in assessment is provided for trainers and trainees in order to ensure that there is complete understanding of the assessment system, assessment methods, their purposes and use. Training will ensure a shared understanding and a consistency in the use of the WPBAs and the application of standards.

Opportunities for feedback to trainees about their performance will arise through the use of the workplace-based assessments, regular appraisal meetings with supervisors, other meetings and discussions with supervisors and colleagues, and feedback from ARCP.

Trainees

Trainees should make the safety of patients their priority and they should not be practising in clinical scenarios which are beyond their experiences and competencies without supervision. Trainees should actively devise individual learning goals in discussion with their trainers and should subsequently identify the appropriate opportunities to achieve said learning goals. Trainees would need to plan their WPBAs accordingly to enable their WPBAs to collectively provide a picture of their development during a training period. Trainees should actively seek guidance from their trainers in order to identify the appropriate learning opportunities and plan the appropriate frequencies and types of WPBAs according to their individual learning needs. It is the responsibility of trainees to seek feedback following learning opportunities and WPBAs. Trainees should self-reflect and self-evaluate regularly with the aid of feedback.

Furthermore, trainees should formulate action plans with further learning goals in discussion with their trainers.

6.2 Appraisal

The formal processes of appraisals and reviews underpin training. These processes ensure adequate supervision during training, provide continuity between posts and different supervisors. They are the main ways of providing feedback to trainees. All appraisals should be recorded in the eportfolio.

Induction Appraisal
The trainee and educational supervisor should have an appraisal meeting at the beginning of each post to review the trainee's progress so far, agree learning objectives for the post ahead and identify the learning opportunities presented by the post. Reviewing progress through the curriculum will help trainees to compile an effective Personal Development Plan (PDP) of objectives for the upcoming post. This PDP should be agreed during the Induction Appraisal.

Mid-point Review
This meeting between trainee and educational supervisor is not mandatory (particularly when an attachment is shorter than 6 months) but is encouraged particularly if either the trainee or educational or clinical supervisor has training concerns, or the trainee has been set specific targeted training objectives at their ARCP). At this meeting trainees should review their PDP with their supervisor using evidence from the e-portfolio. Workplace-based assessments and progress through the curriculum can be reviewed to ensure trainees are progressing satisfactorily, and attendance at educational events should also be reviewed. The PDP can be amended at this review.

End of Attachment Appraisal
Trainees should review the PDP and curriculum progress with their educational supervisor using evidence from the e-portfolio. Specific concerns may be highlighted from this appraisal. The end of attachment appraisal form should record the areas where further work is required to overcome any shortcomings. Further evidence of competence in certain areas may be needed, such as planned workplace-based assessments, and this should be recorded. If there are significant concerns following the end of attachment appraisal, then the programme director should be informed. Supervisors should also identify areas where a trainee has performed about the level expected and highlight successes.

7 Quality Management

The organisation of training program for EDM is the responsibility of the Chief Medical Officer at LUH. The Head of Postgraduate Medical Education is responsible for the following roles on behalf of the Chief Medical Officer, which are executed on a local level by the Training Programme Director:

- oversee recruitment and induction of trainees into the specialty
- allocate trainees into rotations appropriate to their training needs
- oversee the quality of training posts provided locally
- ensure adequate provision of appropriate educational events
- ensure curricula implementation across training programmes
- oversee the workplace-based assessment process within programmes
- coordinate the ARCP process for trainees
- provide adequate and appropriate career advice
- provide systems to identify and assist doctors with training difficulties
- provide flexible training.

Educational programmes to train educational supervisors and assessors in workplace-based assessment are delivered at least biannually for newly appointed supervisors, in addition to more frequent refresher courses for previously trained supervisors.

Postgraduate Medical Education in Iceland is delivered and governed according to Regulation No. 0856/2023 and accredited by the Icelandic Ministry of Health through the work of the Evaluation and Competence Committee on Clinical Training to be granted licence to practise medicine, on specialist medical training and higher speciality training. In addition to this overarching governance structure, the Office for Postgraduate Medical Education at LUH has defined local quality criteria and produces extensive datasets to inform meaningful quality management. These include an annual survey for trainees and supervisors, based on the GMCs National Training Survey (NTS), ARCP outcomes and exam outcomes for example.

Similarly, and more extensively JRCPTB uses data from six quality datasets across its specialties and subspecialties to provide meaningful quality management. The datasets include the GMC national Training Survey (NTS) data, ARCP outcomes, examination outcomes, new consultant survey, penultimate year assessments (PYA)/external advisor reports and the monitoring visit reports.

Quality criteria have been developed to drive up the quality of training environments and ultimately improve patient safety and experience. These are monitored and reviewed by JRCPTB to improve the provision of training and ensure enhanced educational experiences.

8. Intended use of curriculum by trainers and trainees

This curriculum and ARCP decision aid are available from the Office for Postgraduate Medical Education in Iceland website (https://www.landspitali.is/fagfolk/menntun/sernam-laekna/).

Clinical and educational supervisors should use the curriculum and decision aid as the basis of their discussion with trainees, particularly during the appraisal process. Both trainers and trainees are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme.

Each trainee will engage with the curriculum by maintaining an eportfolio. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

Recording progress in the eportfolio

On enrolling in the training programm, trainees will be given access to the eportfolio. The eportfolio allows evidence to be built up to inform decisions on a trainee's progress and provides tools to support trainees' education and development.

The trainee's main responsibilities are to ensure the eportfolio is kept up to date, arrange assessments and ensure they are recorded, prepare drafts of appraisal forms, maintain their personal development plan, record their reflections on learning and record their progress through the curriculum.

The supervisor's main responsibilities are to use eportfolio evidence such as outcomes of assessments, reflections and personal development plans to inform appraisal meetings. They are also expected to update the trainee's record of progress through the curriculum, write end-of-attachment appraisals and supervisor's reports.

The Office for Postgraduate Medical Education, the Head of Medical Education and ARCP panels may use the eportfolio to monitor the progress of trainees for whom they are responsible.

JRCPTB will use summarised, anonymous eportfolio data to support its work in quality assurance.

All appraisal meetings, personal development plans and workplace-based assessments (including MSF) should be recorded in the eportfolio. Trainees are encouraged to reflect on their learning experiences and to record these in the eportfolio. Reflections can be kept private or shared with supervisors.

Reflections, assessments and other eportfolio content should be used to provide evidence towards acquisition of curriculum capabilities. Trainees should add their own self-assessment ratings to record their view of their progress. The aims of the self-assessment are:

- to provide the means for reflection and evaluation of current practice
- to inform discussions with supervisors to help both gain insight and assists in developing personal development plans.
- to identify shortcomings between experience, competency and areas defined in the curriculum so as to guide future clinical exposure and learning.

Supervisors can sign-off and comment on curriculum capabilities to build up a picture of progression and to inform ARCP panels.

9. Equality and diversity

The Training Borard for EDM (Kennsluráð) will formally appraise and document that the programme is following the requirements for equality and diversity as set out in the relevant Icelandic legislation.

10. References

1. Curriculum for Endocrinology and diabetes training in the UK (2022)
2. Regulation on the education, rights and obligation of medical doctors and critiera for granting of licences to practise medicine and specialist medical licences, No. 0856/2023.
3. Gold Guide, Icelandic version. Gullbókin, handbók um sérnám lækna.
4. Generic Professional Capabilities Framework
5. Curriculum for Internal Medicine Training in Iceland (2020)
6. Good Medical Practice
7. Nuts and bolts of entrustable professional activities
8. Horvath E, Majlis S, Rossi R, Franco C, Niedmann JP, Castro A, Dominguez M. An ultrasonogram reporting system for thyroid nodules stratifying cancer risk for clinical management. J Clin Endocrinol Metab. 2009
9. Improving feedback and reflection to improve learning. A practical guide for trainees and trainers
10. Promoting excellence: standards for medical education and training

11. Glossary / Orðskýringar

Skammstafanir og útskýringar á ensku og íslensku

Ensk skammstöfun	Enskt heiti	Íslenskt samheiti	Útskýring
IMT	Internal medicine training	Sérnám í lyflækningum	
CCT	Certificate of completion of training	Námslokavottorð	Vottorð/lokaskýrsla sem gefið er út af kennslustofnun að loknu 5 ára sérnámi í lyflækningum, og liggur til grundavallar sérfræðileyfisveitingu Embætti Landlæknis.
EDM	Endocrinology, Diabetes & Metabolism	Innkirtlalækningar	
EFQ	Evidence of Formal Qualification	Alþjóðleg sérfræði-viðurkenning	Sérfræðiviðurkenning sem gildir í öllum löndum EEA
JRCPTB	Joint Royal Colleges of Physicians Training Board	Sérnámsstofnun konunglegu bresku	Stofnun sem rekin er af the Federation of Royal Colleges of

		lyflæknasamtak-anna (RCP)	Physicians í Bretlandi fyrir hönd allra þriggja Colleges (London, Edinburgh, Glasgow) og stýrir framhaldsnámi lyflækna í Bretlandi
GMC	General Medical Council	Ígildi Embættis Landlæknis á Íslandi	Læknaráð sem hefur það markmið að gæta hagsmuna sjúklinga og hafa eftirlit með menntun og störfum lækna í Bretlandi
GPCs	Generic professional capabilities	Almenn fagleg hæfni	Generic Professional Capabilities Framework er skjal GMC sem lýsir almennri hæfni sem ætlast er til að allir læknar tileinki sér og er grundvallandi fyrir ákveðna þætti allra nýrra marklýsinga sérnáms.
MDTs	Multidisciplinary Teams	Þverfagleg teymi	Teymi heilbrigðisstarfsmanna úr mörgum stéttum sem vinna saman að settu markmiði
IM	Internal medicine	Almennar Lyflækningar	Sérgrein í læknisfræði
IMT1	Internal Medicine Stage 1 training	Sérnám í almennum lyflækningum, fyrri hluti	Fyrstu 3 árin í sérnáminu í almennum lyflækningum teljast vera fyrri hluti sérnáms

IMT2	Internal Medicine Stage 2 training	Sérnám í almennum lyflækningum, síðari hluti	Síðari 2 árin í sérnáminu í almennum lyflækningum eru framhaldshluti sérnáms
ARCP	Annual Review of Competency Progression	Árlegt framvindumat	Mat á framvindu sérnámslæknis sem fer fram árlega til loka sérnáms
SCE	specialist certification examination	Sérfræðipróf í læknisfræði	Próf til staðfestingar á sérfræðikunnáttu

MRCP (UK)	Membership of the Royal Colleges of Physicians Diploma	Meðlimur í hinu konunglega breska lyflæknafélagi	Diplómagráða sem læknir fær eftir að hafa lokið 3 prófum í sérnámi í almennum lyflækningum
GMP	Good medical practice	Góðir starfshættir lækna	Leiðbeiningar gefnar út af Embætti Landlæknis
AoMRC	Academy of Medical Royal Colleges	Regnhlífasamtök allra konunglegu sérgreinasamtaka Bretlands	Samráðsvettvangur allra sérgreinafélaga Bretlandseyja
CiPs	Capabilities in practice	Starfshæfni í sérnámi	Sú hæfni sem sérnámslæknir þarf að uppfylla til að standast kröfur sérnámsins. Metur lykilþætti læknisstarfsins í stigum trausts.
Generic CiPs	Generic capabilities in practice	Almenn starfshæfni	
Clinical CiPs	Clinical capabilities in practice	Fagleg starfshæfni	
Speciality CiPs	Speciality capabilities in practice	Sérhæfð starfshæfni	Starfshæfni fyrir undirsérgrein
CPD	Continuing professional developement	Símenntun	Símenntun sem læknir stundar eftir að sérnámi er lokið
MSF	Multisource feedback	Þverfagleg endurgjöf (stundum nefnt 360° mat)	Ein matsaðferð sem nýtt er til að meta frammistöðu sérnámslæknis í starfi, fyllt út af ýmsum starfsstéttum innan heilbrigðiskerfisins, þmt sérfræðilæknum

ACAT	Acute care assessment tool	Heildstætt mat á frammistöðu við bráðaaðstæður	Matsaðferð til að meta hæfni og gefa endurgjöf á frammistöðu sérnámslæknis í bráðum aðstæðum
ALS	Advanced Life Support	Sérhæfð endurlífgun	Allir læknar þurfa að hafa gilt skirteini til að stýra endurlífgun en það fæst eftir að hafa lokið ALS námskeiði og prófi
Cbd	Case-based discussion	Tilfellaumræða	Matsaðferðtil að meta sérnámslækni í starfi. Umræður um sjúkratilfelli með handleiðara eða í stærri vinnuhópiMosi2018
DOPS	Direct observation of procedural skills	Mat á hæfni til inngripa	Matsaðferð til að staðfesta hæfni sérnámslæknis til inngripa sem er gert undir handleiðslu reyndari læknis
Mini-CEX	Mini-clinical evaluation exercise	Mat á faglegri hæfni	Matsaðferð sem sérfræðilæknir gerir eftir að hafa fylgst með sérnámslækni framkvæma ákveðið verkefni með sjúklingi
MCR	Multiple consultant report	Sérfræðingsmat	Matsaðferð þar sem sérfræðilæknar meta sérnámslækni að störfum. Samantekt sem tekur á hinum ólíku þáttum starfshæfni

PS	Patient survey	Sjúklingakönnun	Matsblað þar sem sjúklingur fyllir út umsögn um sérnámslækni (ekki í notkun á Íslandi sem stendur)
QIPAT	Quality improvement project assessment tool	Mat á gæðaverkefnum	Matsaðferð sem notuð er til mats á hæfni sérnámslæknis við vinnu að gæða- og umbótaverkefnum
TO	Teaching observation	Kennsluhæfni	Matsaðferð til að meta hæfni sérnámslæknis til kennslu og miðlun upplýsinga
	Simulation training	Hermikennsla	Kennsla sérnámslækna sem fer fram í hermisetri þar sem líkt er eftir raunverulegum aðstæðum
	Reflection	Ígrundun	Náms- og matsðaferð sem sérnámslæknir nýtir til ígrundunar um lærdómsrík eða erfið atvik í starfi eða námi.
	Presentations	Komuástæða sjúklings	Einkenni sem sjúklingur leitar læknis vegna, á ekki við um sjúkdómsgreiningu
	Conditions	Ástand sjúklings	
	System	Líffærakerfi	
EDM ARCP decision aid	Endocrinology, Diabetes & Metabolism Annual Review of Competency	Ákvörðunartól fyrir árlegt framvindumat í sérnámi í innkirtlalækningum.	Sérnámslæknir þarf að uppfylla ákveðin skilyrði sem listuð eru í ákvörðunartóli til að geta færst upp um námsár

	Progression decision aid	Einnig nefnt framvinduviðmið.	
ST6	Speciality trainee year 6	Sérfræðingur í framhaldssérnámi á fyrsta námsári	Talan vísar til fjölda ára í sérnámi í heildina, en á undan er gengið 5 ára sérnám til sérfræðiviðurkenningar í almennum lyflækningum
ST7	Speciality trainee year 7	Sérfræðingur í framhaldssérnámi á öðru námsári	Talan vísar til fjölda ára í sérnámi í heildina, en á undan er gengið 5 ára sérnám til sérfræðiviðurkenningar í almennum lyflækningum
ST8	Speciality trainee year 8	Sérfræðingur í framhaldssérnámi á þriðja námsári	Talan vísar til fjölda ára í sérnámi í heildina, en á undan er gengið 5 ára sérnám til sérfræðiviðurkenningar í almennum lyflækningum
TPD	Training Programme Director	Kennslustjóri	Sérfræðilæknir í innkirtlalækningum sem skipuleggur og stýrir sérnámi í sinni sérgrein
ES	Educational supervisor	Sérnámshandleiðari	Sérfræðilæknir sem sér um handleiðslu sérnámslæknis í starfi/námi, venjulega sami aðili á fyrri hluta sérnáms
WPBA	Workplace-based assessment	Vinnutengt námsmat	Samheiti yfir hinar ólíku matsaðferðir

			sem notaðar eru til að meta hæfni sérnámslæknis
	Faculty of Medical Education in Iceland	Faghópur um handleiðaraþjálfun	Samstarfsverkefni Landspítala, Þróunarmiðstöðvar Íslenskrar Heilsugæslu, Sjúkarhússins á Akureyri og Menntavísindasviðs Háskóla Íslands um þróun handleiðaraþjálfuna r og annarra málefna tengdum menntavísindum lækna á Íslandi.
Formative assessment		Leiðsagnarmat	Mat gert á inngripum eða annarri hæfni sérnámslæknis, þar sem megináhersla er lögð á endurgjöf og leiðsögn. Matsaðferð til náms.
Summative assessment		Lokamat	Mat gert á inngripum eða annarri hæfni sem talið er staðfesta sjálfstæði sérnámslæknis til viðkomandi framkvæmdar. Matsaðferð til prófs.
SLE	Supervised learning events	Vinnutengt mat	Samheiti yfir hinar ólíku matsaðferðir sem nýttar eru til að meta hæfni sérnámslæknis við störf. Á við þau

			eyðublöð þar sem sérfræðingur hefur beint eftirlit með störfum sérnámslæknis og gefur endurgjöf.
CS	Clinical supervisor	Faghandleiðari	Sérfræðilæknir sem sér um handleiðslu sérnámslæknis í starfi/námi meðan hann er við störf á tiltekinni deild eða í tiltekinni undirsérgrein lyflæknisfræðinnar
ESR	Educational supervisor report	Skýrsla Sérnáms-handleiðara	Sérnámshandleiðari gerir árlega skýrslu um sérnámslækni. Skýrslan er notuð í árlegu framvindumati
PDP	Personal developement plan	Starfsþróunar-áætlun	Sérnámslæknir gerir sjálfur áætlun um hvernig hann hugsar sér að stuðla að framþróun og þroska í sínu sérnámi
Head of PME	Head of Postgraduate Medical Education	Yfirlæknir sérnáms	Yfirlæknir á sjúkrahúsi sem fer með framkvæmd ábyrgðar framkvæmdastjóra lækninga á sérnámi lækna í samræmi við reglugerð 467/2015.