

A Framework of Competences for the Level 3 Training Special Interest Module (SPIN) in Paediatric Diabetes

RCPCH

Royal College of
Paediatrics and Child Health

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Section 1 Introduction

Who is this document for?

It is primarily for doctors at Level 3 in their General Paediatric training who wish to work towards an expertise in Paediatric Diabetes during Level 3 training. It is also there to guide tutors and educational supervisors. It may be used by doctors later in their careers (for example doctors post CCT, SAS doctors) who wish to demonstrate specific expertise in diabetes.

Why do I need it?

This document gives you and your tutors' guidance about the competences you need to cover **in addition** to the Framework of Competences for Level 3 Training in General Paediatrics. It gives you a clear picture of what you have to achieve by the end of this module of training in order to have expertise in this area and be signed off as competent by the Diabetes and Endocrinology CSAC.

How do I use the document?

You can sit down with the book on your own and use it to help you identify areas of practice that you need to work on and those areas in which you feel fairly confident. You can talk to your tutor about the balance of your experiences and look for ways to ensure you cover all areas you need to. It should be used by Schools and Educational Supervisors to ensure that a programme of training is developed in Level 3 which will allow the trainees to achieve these competences. In determining this programme, liaison with the relevant CSAC is important. In the appendix, there is guidance for training in the module which the programme must adhere to.

Progression

Following completion of Level 3 training and the module, the CCT holder should be competent to take up a post as a General Paediatrician with a Special Expertise in Diabetes. It is expected that there will be a requirement in paediatric services for consultants with this special expertise. Such posts will usually form part of a Regional Paediatric Diabetes Network.

A note about the format of this document

This framework sets out the additional competences which should be achieved by the end of Level 3 training. These will typically take at least 12 months. The trainee also has to achieve all the competences in the Level 3 General Paediatric Framework

Assessment The RCPCH Assessment Strategy (GMC approved) for Level 3 Training will be used. CSAC will review these assessments, individuals' e-portfolio and structured reports from clinical supervisors. Trainees working with their educational supervisors should ensure that the Assessment Strategy is tailored to cover the area of Special Expertise as well as General Paediatrics and that learning and assessment are well documented within the e-portfolio. Examples of appropriate assessments are provided in all the subsequent sections of the SPIN module, but these are not exclusive, and trainees can provide any appropriate evidence of completion of the module. Successful completion will be recognized by

RCPCH as evidence of competence in Diabetes. Where individuals do not successfully complete the module there will be no additional training opportunities or remediation as this module is in addition to core level 3 training

Section 2 Specific Competences in Paediatric Diabetes

- Know about biochemical, genetic, clinical and epidemiological aspects of diabetes
- Be able to lead, develop and work effectively in a multidisciplinary service/team
- Be able to use results of audit, research and evidence-based practice to plan diabetes services
- Understand the purpose and logistics of, and be able to lead, a Diabetes service

Section 3 Specific Clinical Competences in Paediatric Diabetes

A child presents well with type 1 diabetes mellitus

- Understand the pathophysiology of diabetes mellitus
- Have the knowledge and skills to be able to assess and initiate management of patients presenting with diabetes both in inpatient and outpatient settings
- Be able to counsel children and their parents at diagnosis in an appropriate setting and deal with important issues including guilt
- Know the principles of diabetes management including most insulin regimens
- Be able to initiate insulin treatment, choosing an appropriate regime

Diabetic Ketoacidosis

- Be able to manage ongoing treatment safely
- Be able to manage potential complications including cerebral oedema & critical care

Ongoing management of type 1 diabetes

- Gain experience of the various insulin preparations, regimens and their potential advantages and disadvantages
- Be competent in intensive insulin regimes, CSII (continuous subcutaneous insulin infusion) and basal bolus regime
- Be familiar with the principles of dietetic management of diabetes
- Be able to give advice about diet and is competent with at least one meal planning method e.g. carbohydrate counting
- Know about the glycated protein analysis and understand its significance in evaluating diabetes control
- Be able to advise the family and the team on diabetes monitoring, including HbA1c
- Be familiar with and be able to demonstrate different glucose monitoring devices including CGMS (continuing glucose monitoring system)
- Clearly understand the aetiology and the management of hypoglycaemia
- Be able to manage other emergencies such as missed or incorrect insulin dose, pump failure
- Clearly understand the management of diabetes at the time of surgery
- Be able to advise surgeons and anaesthetists on both pre and post operative care
- Be able to advise parents and schools on appropriate care plans for a school age child

Educational and Psychosocial aspects of type 1 diabetes

- Understand the nature and effect of diabetes on children and families
- Understand the element of partnership with families in the management process and to recognize when this is faltering
- Understand cultural and lifestyle issues affecting diabetes care
- Know about motivational and cognitive behavioural therapies
- Be able to use different consultation strategies, e.g. motivational interviewing, target setting, according to individual patient's needs
- Be familiar with the concept of transition (from primary to secondary school and from Paediatric to Adult services)

- Be able to assess and facilitate a young person's readiness to transfer to adult services, and plan the transfer
- Demonstrate effective use of the education process in preparing and delivering information in an appropriate style to the various target groups (parents, children, young adults)
- Be able to give advice on exercise and illness management to the child, family and other health professionals
- Be able to advise prevention and management of hypo and hyperglycaemia to the child, family and other health professionals
- Be able to give appropriate advice on diabetes and alcohol, contraception, driving and travel

Complications and Associated conditions of type 1 diabetes

- Be aware of screening methods/tests and guidelines available for detection of long term complications
- Be able to interpret tests to detect complications
- Be able to detect, diagnose and manage associated thyroid problems, coeliac disease
- Know the association between the type 1 diabetes and other diseases e.g. polyendocrine syndromes

Atypical Diabetes

- Understand the concept of insulin resistance, obesity and type 2 diabetes
- Know about diabetes associated with other diseases e.g. cystic fibrosis and mitochondrial diseases
- Know about the investigation and treatment of maturity onset diabetes of the young
- Know about the treatment of transient and permanent neonatal diabetes
- Be able to manage type 2 diabetes and diabetes associated with cystic fibrosis

Appendix 1

Paediatric Standards Checklist

These standards were derived to assist in the assessment of the paediatric training standards of in your deanery

Speciality: Special Study Module in Paediatric Diabetes

The Programme (which may consist of several posts) should provide:

1. Supervision	✓/x
1.1 An educational supervisor that is a Paediatric Consultant trained in assessment and appraisal	
1.2 An educational supervisor who provides an average of 1 PA per 4 trainees per week of educational supervision	
1.3 Evidence that the assessment strategy is being delivered	
1.4 Trainers receive appropriate training on the delivery of the assessment strategy	

2. Other Personnel	
2.1 A minimum of 2 consultants in diabetes/tertiary diabetes to support and supervise in a Level 3 unit and/or a consultant with a DGH Diabetic Service supported by other consultants competent in managing acute diabetes care	
2.2 More than one ST4 -8 in the children's department	
2.3 Diabetes specialist nurse or similar, Paediatric dietician, a psychologist or links with CAMHS	

3. Service requirements and facilities	
3.1 Specialty specific requirements of subspecialty department: In-patient facilities for children with diabetes with protocol management of DKA and illness/surgery in children with diabetes.	
3.2 Specialty specific requirements of related clinical departments that are involved in delivery of the curriculum: Close links with biochemistry department. Links with adult diabetes services	
3.3 Specialty specific requirements of service departments relevant to delivery of curriculum (e.g. investigation departments, PAMs departments, surgery or anaesthesia): Centre that offers Continuous Sub-cutaneous Insulin infusion (CSII)	
3.4 Specialty specific requirements of clinical networks: Participation in Local Diabetes network, Participation in National Diabetes Audit	

4. Educational activities and training	
4.1 Specialty specific clinical exposure required to provide sufficient learning opportunities (NB if giving workload data ensure it is explicit whether this is number per annum or number trainee would be expected to be exposed to over entire programme): An accredited centre that looks after at least 80 children with Diabetes Mellitus. See and manage newly diagnosed patients with diabetes including initiation of insulin Attend at least 1 Diabetes Holiday Take part and run an education session on at least 2 occasions	
4.2 Specialty specific requirements for structured training opportunities to include courses: RCPCH/BSPED Accredited Advanced Paediatric Diabetes Course or equivalent	
4.3 Specialty specific requirements for other experiential learning(excluding	

<p>clinics and ward rounds): Attachment to Diabetes specialist nurse for hospital and home visits Attachment to the paediatric dietician for clinic and home visits Attachment to biochemistry department to learn about HbA1c assay</p>	
<p>5. Working patterns</p>	
<p>5.1 Safe cover arrangements for paediatric department out of hours in line with RCPCH guidance</p>	
<p>5.2 Evidence of compliance with existing employment rules to working time</p>	
<p>5.3 Working intensity and pattern that is appropriate for learning</p>	
<p>5.4 Access to sub-specialty training time which allows achievement of the competences throughout the programme– this would be expected typically to take 12 months.</p>	
<p>5.5 This post forms part of a complete paediatric training programme which provides a minimum of 5 years of acute clinical experience, including out of hours</p>	
<p>6. Specific Post requirements</p>	
<p>6.1 for specialty training this post should permit acquisition of all required clinical competences. The minimum length of training required is 12 months attached to Diabetes Services in one or more posts</p>	
<p>7. Enabled to learn new skills, necessary skills and curriculum coverage (specialty specific) <i>This section can be used to highlight marker conditions to which trainee should be exposed or the numbers of cases/procedures that trainee will be expected to see/do. Ensure that it is clear whether any numbers are for whole training programme or per annum</i></p>	
<p>7.1 Specialty specific marker conditions trainee should be exposed to: Diabetes including non-type 1 & type 2, neonatal diabetes, CF related diabetes</p>	
<p>8. Access to clinics and ward rounds and long term care of patients</p>	
<p>8.1 Specialty specific numbers and types of clinics expected to attend (including outreach clinics): See and review at least 75 Diabetic patients in Multi-Disciplinary Clinics Attend at least 15 clinics within any 6 month period</p>	
<p>8.2 Specialty specific combined clinics expected to attend:</p>	
<p>8.3 Specialty specific ward rounds consultant led and independent per week:</p>	
<p>8.4 Specialty specific involvement in transitional care: Attachment to Young Adult or Transition Diabetes clinic for at least 5 sessions over the programme</p>	
<p>9. Meetings</p>	
<p>9.1 Specialty specific number and types of MDT meetings expected to be exposed to: Regular diabetes MDT meetings Attend some network meetings</p>	
<p>9.2 Specialty specific multi-professional meetings expected to be exposed to: Regional Network meetings, including educational meetings</p>	
<p>10. Clinical audit</p>	
<p>10.1 Evidence of trainees participation in 2 audit projects on a diabetes related topic</p>	
<p>11. Teaching appraising and assessing</p>	
<p>11.1 Opportunities for formal and informal teaching</p>	

11.2 For senior trainees: opportunities for involvement of assessment of others	
11.3 For senior trainees: opportunity to be involved in the appraisal of others	

12. Research	
12.1 Opportunities to participate in research (not necessarily lead)	

13. Management	
13.1 Opportunities to be involved in management e.g. management meetings with primary care teams or school	

X-ref	Comments