

Section 2 Specific Competences in Paediatric Diabetes

Competence	Evidence Submitted
<ul style="list-style-type: none"> • Know about biochemical, genetic, clinical and epidemiological aspects of diabetes 	<p>Courses - For example: children and young persons diabetes care, insulin pump therapy: Modules from Diabetes MSC (York University, Warwick University, Cardiff University) Motivational Interviewing for diabetes teams (York University) See www.diabetes.org.uk (Professionals section>training & competencies> training courses) for comprehensive list.</p> <p>Educational Meetings – For example: ACDC, BSPED CME day, ISPAD Paediatric Diabetes Network days</p> <p>Conferences – For example: Diabetes UK, ISPAD, ESPE, BSPED</p> <p>E-Learning – Diabetes Modules may be available through your Trust.</p> <p>Covid-19 Conferences: ISPAD Virtual Meeting October 2020 Educational Meetings: ACDC webinars October 2020 – January 2021 (see ACDC website for details), Regional network seminars, ISPAD guidelines Virtual ARTE Meeting in September 2020</p>
<ul style="list-style-type: none"> • Be able to lead, develop and work effectively in a multidisciplinary service/team 	<p>Management – Courses (management and leadership courses through local deanery, BMA) Organising Rotas Taking an active role in clinical governance meetings Attending local Diabetes “time out” days Regional network QI days, organizing pre or post clinic meetings, transnational clinics meetings.</p> <p>COVID-19 Virtual Trust diabetes MDT meetings, Virtual Diabetes Network Meetings Reflect on which patients need to be seen F2F and which patients can be reviewed virtually and best ways to organize this based on your local team/resources available.</p>
<ul style="list-style-type: none"> • Be able to use results of audit, research and evidence-based practice to plan diabetes services 	<p>Governance – Attend departmental clinical governance meetings Diabetes Audit</p> <p>Presentations – presentation of diabetes audit at meetings and conferences</p> <p>Courses – For example: Evidence Based Medicine – LSP study day and LME Skills (Royal Society of Medicine, London) online CPD: diabetesonthenet</p> <p>Miscellaneous: participation in Paediatric Endobetes Journal Club organised by trainees (email BSPED trainee rep for details) QI project and patient experience survey to improve trust services. QI Project to look at how service delivery has changed with COVID and changes that should remain going forward.</p>
<ul style="list-style-type: none"> • Understand the purpose and logistics of, and be able to lead, a Diabetes service 	<p>Management – Involvement in national paediatric diabetes audit in your department/ Peer review/paediatric diabetes network meetings</p> <p>Covid-19: Attend Virtual trust and regional diabetes business meeting.</p>

Section 3 Specific Clinical Competences in Paediatric Diabetes

A child presents well with type 1 diabetes mellitus

Competence	Evidence Submitted
<p>Understand the pathophysiology of diabetes mellitus</p>	<p>Show evidence of learning – take home messages/change in practice/reflective events Courses - For example: children and young persons diabetes care, insulin pump therapy: Modules from Diabetes MSC (York University, Warwick University, Cardiff University) see www.diabetes.org.uk (Professionals section> training & competencies> training courses) Educational Meetings – ACDC, BSPED CME day, ISPAD Paediatric Diabetes Network days Conferences – Diabetes UK, ISPAD, ESPE, BSPED E-Learning – Diabetes Modules may be available through your Trust</p> <p>Covid-19 E-Learning - ESPE E-learning Diabetes module available https://www.espe-elearning.org (free) ISPAD website Diabetes Modules may be available through your Trust Teaching Sessions – deliver virtual teaching sessions to medical students, nursing staff, paediatric team. Online MSC module (Birmingham University)</p>
<p>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 Be able to initiate insulin treatment, choosing an appropriate regime</p>	<p>Clinical Questions – For example: Choosing an appropriate insulin regimen for children with type 1 diabetes (NICE guidelines, pubmed etc.) – <i>date in eportfolio</i> Case Based Discussions – Management of a newly diagnosed patient with diabetes – <i>date in eportfolio</i> Log book of patients seen on the ward - Newly diagnosed patients with T1DM (DKA and “well” presentation treated with S/C insulin). Education session with psychologist, dietician, diabetes nurses etc.</p> <p>Covid-19 Clinic log - Keep a logbook of patients seen on the ward as well. Reflect on virtual versus face to face clinics. Pros and cons. Reflective event – For Example: learning points from the latest DKA guidelines</p>
<p>Know the principles of diabetes management including most insulin regimens</p>	<p>Clinical Questions – For example: Knowledge of carbohydrate counting and insulin dose calculations in paediatric patients with type 1 diabetes etc – <i>date in eportfolio</i> Case Based Discussions – Management of a patient with overlapping insulin regimen – <i>date in eportfolio</i> Mini-Cex – Insulin pump start, insertion of a sensor – <i>date in eportfolio</i> Courses - For example: children and young persons diabetes care, insulin pump therapy: Modules from Diabetes MSC (York University, Warwick University, Cardiff University) see www.diabetes.org.uk (Professionals section and training courses)</p> <p>Covid-19 E-Learning - ESPE E-learning Diabetes module available, ISPAD website https://www.espe-elearning.org Clinic log - Keep a logbook of patients seen in clinic or telephone advice given when doing OOH. State type of insulin regime.</p>

Ongoing management of type 1 diabetes

Competence	Evidence Submitted
<p>Gain experience of the various insulin preparations, regimens and their potential advantages and disadvantages Be competent in intensive insulin regimens, CSII (continuous subcutaneous insulin infusion) and basal bolus regime</p>	<p>Courses – For example: Insulin pump therapy, Advancing technologies in Diabetes care (York University, King’ College, London, Warwick University etc.) Clinics – Paediatric, transition, pump start etc (eportfolio) Clinical Questions – For example: Insulin pump therapy and Complication rates – <i>date in eportfolio</i> Teaching Sessions – Medical student teaching sessions, Post graduate session during trust induction etc</p> <p>Covid-19 Clinic log - Keep a logbook of patients seen in clinic or telephone advice. State type of insulin regime. Mini-cex – CGM / insulin pump or blood glucose download interpretation with a member of the diabetes team. Use of time in range and estimated HBA1c versus actual HBA1c-reliability and how to use this to guide your advice. DOC – telephone appointment clinic letter with details of advice given including safety net information Management log – Transition to subcutaneous insulin from DKA management Diabetes study day</p>
<p>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</p>	<p>Courses – Insulin pump therapy, Advancing technologies in Diabetes care (York University, King’s College, London, Warwick University etc) Miscellaneous – community visits with diabetes nurses and Sessions with dietician – <i>date in eportfolio</i></p> <p>Covid-19 Miscellaneous – Try carbohydrate counting yourself for a week and reflect on your experience in the e-portfolio. Reflect on low carbohydrate diets. Education meeting/ CPD – organise virtual/ over the phone education session with the dietician on carbohydrate counting Online – e-learning carb counting assessment tool</p>
<p>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</p>	<p>Miscellaneous – observing Hba1c assays in biochemistry lab or DCA analyser in clinic Mini-Cex – For example: Diabetes management in a paediatric diabetes clinic setting – <i>date in eportfolio</i></p> <p>Covid-19 Clinical question – Review in what situations HbA1C is not accurate and other way to monitor glucose control in these situations. Reviewing CGM and use estimated HbA1C or estimated HbA1C from average glucose profile.</p> <p>Miscellaneous – Reflect on different ways that blood glucose control can be measured and how this is being done different whilst reduced face to face contact. E.g. reviewing time in range on download or estimated HBA1c</p>
<p>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</p>	<p>Clinical Questions – For Example: Which paediatric diabetes patients qualify for CGMS? (NICE guidelines etc) Case based Discussions – Management of a diabetes patient with recurrent hypoglycaemia – <i>date in eportfolio</i></p>

hypoglycaemia	Mini-Cex – Interpretation of CGM sensor downloads Educational Meetings – ACDC, BSPED CME day, ISPAD, Departmental meetings with drug reps
Be able to manage other emergencies such as missed or incorrect insulin dose, pump failure	Reflective Event – Diabetic patients presenting during an on call – <i>date in eportfolio</i> Clinic – Sick day rules and management of pump failure Covid-19 Clinic log - Keep a log book of patients seen or telephone advice given for emergencies as overleaf. Clinical Questions – For Example: How do I manage Hyperglycaemic Hyperosmolar State (HHS) in children? Out of hours diabetes on call Pitfalls and advantages of reviewing downloads remotely
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	Miscellaneous or Reflective event – Preparation of a diabetic patient for theatre/general anaesthetic Teaching session – Deliver a teaching session to surgical trainees about management of diabetes pre/post-operatively Log book of patients seen - <i>dates in eportfolio or labelled Folder in personal library</i> Covid-19 Miscellaneous or Reflective Event – management of diabetes patients on PICU admitted with non-diabetic emergencies. Log diabetes plans for patients undergoing emergency surgery.
Be able to advise parents and schools on appropriate care plans for a school age child	Miscellaneous – Care plans for school or school visits with Diabetes nurses Clinics – advise on management of diabetes at school Covid-19 CBD/ DOC – discussion of risks of COVID-19 in type 1 diabetes and provide up-to-date verbal and written advice on necessary precautions including school attendance. e learning module – school type 1 diabetes

Educational and Psychosocial aspects of type 1 diabetes

Competence	Evidence Submitted
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	Clinics – Psychologist sessions (if available in your department) Reflective Events – Eating disorders and diabetes or influence of culture on diabetes (fasting for Ramadan etc) Diabetes Residential Trip – Either local events or through diabetes UK (includes shorter events over a weekend or day) See www.diabetes.org.uk website (healthcare professional volunteering) Any trainee who volunteers on a Diabetes UK event will have this recognised as part of their training and will receive a certificate that can be uploaded to their eportfolio, and will be recognised by the CSAC. Covid-19 Miscellaneous – Try carbohydrate counting, blood glucose monitoring for a whole week and reflect on your experience. Try wearing a pump and/or CGM for a week. Miscellaneous – remote volunteering opportunities (see <i>Diabetes UK website for more details</i>) Reflective Event – talk to a patient and family about their

	journey from diagnosis to transition
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	<p>Clinics – Psychologist sessions (if available in your department) Educational Meetings – ACDC (psychology sessions) Courses – Motivational Interviewing (York University) Mini-Cex – For example: Communication with patients and families in diabetes transition clinic</p> <p>Covid-19 E-learning- BMJ motivational interviewing module online. Teaching – Arranging a telephone teaching session with your department's psychologist. Clinic</p>
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	<p>Clinics – Diabetes Transition clinic – <i>dates in eportfolio</i> Adult diabetes clinics Courses – For example: Transition: closing the gap between child and adult services (York University) Clinical questions – For example: What resources are available in your local trust to facilitate transition (Ready steady go programme, youth worker etc) Mini-Cex – Preparing a young person in clinic for transition and preparing their transfer – <i>dates in eportfolio</i></p> <p>Covid-19 Mini-cex – Write a health-care plan for a patient transitioning from primary to secondary school. Education meeting/ CPD – organise virtual/ over the phone education session with the paediatric diabetes specialist nurses on transition planning</p>
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	<p>DOCs – Clinic letters outlining clinic discussion with young person about DVLA criteria for driving/advice on alcohol etc Clinics – Patients seen in clinic where you have initiated education Reflective Event – Delivering the initial education session to newly diagnosed diabetic on the ward – <i>date in eportfolio</i> Miscellaneous – Attend educational events for parents/families, Such as pump demonstration days, evening youth events, school events etc Clinical Questions – For example: What are the DVLA standards for diabetic drivers and for heavy goods vehicles (HGV) etc</p> <p>Covid-19 Miscellaneous – develop educational resources to be sent out to families as part of the department's newsletter or email. DOC – telephone appointment clinic letter with details of advice given including safety net information Understanding of available online resources such as digibete</p>

Complications and Associated conditions of type 1 diabetes

Competence	Evidence Submitted
Be aware of screening methods/tests and guidelines available for detection of long term complications Be able to interpret tests to detect complications	Clinical Questions – For example: How often should screening tests for the detection of long term complications of diabetes be carried out in paediatric patients? (NICE guidelines, ISPAD

<p>Be able to detect, diagnose and manage associated thyroid problems, coeliac, disease</p> <p>Know the association between the type 1 diabetes and other diseases e.g. polyendocrine syndromes</p>	<p>guidelines, local department guidelines)</p> <p>Case based Discussions – For Example: Management of a patient with diabetes and coeliac disease</p> <p>Clinics – annual review clinics</p> <p>Educational Meetings – For example: ACDC, BSPED CME day, ISPAD</p> <p>Teaching session – for example: Deliver a teaching session on Polyendocrine syndromes</p> <p>Miscellaneous – Attend retinopathy clinic, diabetic foot clinic</p> <p>Covid-19</p> <p>E-Learning - ESPE E-learning Diabetes module available https://www.espe-elearning.org</p> <p>Clinic log - Keep a log book of patients seen in clinic or telephone advice. State type of insulin regime, recognition of symptoms and investigate appropriately. Able to prioritise for F2F appointments.</p> <p>Miscellaneous – develop patient and parent information leaflets on annual screening tests</p> <p>Clinical Governance – For Example: audit annual screening for complications within your department</p>
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Atypical Diabetes

Competence	Evidence Submitted
<p>Understand the concept of insulin resistance, obesity and type 2 diabetes</p> <p>Know about diabetes associated with other diseases e.g. cystic fibrosis and mitochondrial diseases</p> <p>Know about the investigation and treatment of maturity onset diabetes of the young</p> <p>Know about the treatment of transient and permanent neonatal diabetes</p> <p>Be able to manage type 2 diabetes and diabetes associated with cystic fibrosis</p>	<p>Clinics – type 2 diabetes clinics, obesity clinics, Cystic fibrosis clinics</p> <p>Case Based Discussions – Patient with type 2 diabetes</p> <p>Clinical Questions – For example: What are the clinical characteristics and diagnostic criteria of maturity-onset diabetes of the young? (MODY)</p> <p>Reflective event or Miscellaneous – For example: A child with neonatal diabetes</p> <p>Educational Meetings – ACDC, ISPAD (neonatal diabetes or obesity) etc</p> <p>Covid-19</p> <p>E-Learning - ESPE E-learning Diabetes module available https://www.espe-elearning.org</p> <p>Clinic log - Keep a log book of patients seen in clinic or telephone advice. State type of insulin regime.</p> <p>Education Meeting/ CPD – organise virtual/over the phone teaching with paediatric diabetes consultant on atypical diabetes</p> <p>ACDC training days , network study days</p>

Appendix 1

Paediatric Standards Checklist (all these competencies

These standards were derived to assist in the assessment of the paediatric training standards of Speciality: Special Study Module in Paediatric Diabetes

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

Competence	Evidence Submitted
<p>1. Supervision</p> <p>1.1 An educational supervisor that is a Paediatric Consultant trained in assessment and appraisal</p> <p>1.2 An educational supervisor who provides an average of 1 PA per 4 trainees per week of educational supervision</p> <p>1.3 Evidence that the assessment strategy is being delivered</p> <p>1.4 Trainers receive appropriate training on the delivery of the assessment strategy</p>	<p>Supervision meetings: Commencement of SPIN, Mid-point and completion of SPIN – <i>Dates in eportfolio</i></p>
<p>2. Other Personnel</p> <p>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</p> <p>2.2 More than one ST4 -8 in the children's department</p> <p>2.3 Diabetes specialist nurse or similar, Paediatric dietician, a psychologist or links with CAMHs</p>	<p>Details of SPIN training centre(s): Members of the MDT, On call rota etc</p>
<p>3. Service requirements and facilities</p> <p>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.</p> <p>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</p> <p>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)</p> <p>3.4 Specialty specific requirements of clinical networks: Participation in Local Diabetes network, Participation in National Diabetes Audit</p>	<p>Protocols – List of protocols available within the diabetes training centre(s) e.g DKA, surgical, sick day rules etc</p> <p>Miscellaneous - observing Hba1c assays in biochemistry lab or DCA analyser in clinic</p> <p>Educational Meetings – Regional diabetes network meetings (can be virtual)</p> <p>Miscellaneous – Observing new insulin pump starts (can be virtual)</p>
<p>4. Educational activities and training</p> <p>RCPCH/BSPED Accredited Advanced Paediatric Diabetes course or equivalent</p> <p>4.1 Specialty specific clinical exposure required to provide sufficient learning opportunities(NB if giving workload data ensure it is</p>	<p>Logbook – Number of diabetes clinics attended</p> <p>Logbook – number of diabetes clinics observed and number of diabetes clinics carried out independently</p> <p>Logbook – Number of diabetes patients seen on the ward <i>Need to put dates in eportfolio or link it to a labelled folder in your personal library</i></p>

<p><i>explicit whether this is number per annum or number trainee would be expected to be exposed to over entire programme):</i> 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</p> <p>Attend at least 1 Diabetes Holiday</p> <p>Take part and run an education session on at least 2 occasions</p> <p>4.2 Specialty specific requirements for structured training opportunities 4.3 Specialty specific requirements for other experiential learning(excluding 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>Diabetes Residential Trip – Either local events or through diabetes UK (includes shorted events over weekend or day) See www.diabetes.org.uk website (healthcare professional volunteering) Any trainee who volunteers on a Diabetes UK event will have this recognised as part of their training and will receive a certificate that can be uploaded to their eportfolio, and will be recognised by the CSAC. The aim primarily is to develop insight into diabetes care outside the clinical setting on a day to day basis. We will take into account the current climate and availability of opportunity. This could be through school visits, home visits (which are opening up but can be virtual) or taking part in a session where you are discussing the impact on the YP and family and their day to day life (virtual acceptable)</p> <p>Educational Sessions – These sessions are for teaching patients. For example: (Virtual education sessions acceptable).</p> <p>Give a session on carbohydrate counting Explain how CGMS works to a patient Give a session on sick day rules or holiday travel overseas with insulin etc</p> <p>Miscellaneous – Number of visits carried out with diabetes nurses or sessions with dietician in clinic/ward – <i>dates in eportfolio</i></p>
<p>5. Working patterns 5.1 Safe cover arrangements for paediatric department out of hours in line with RCPCH guidance 5.2 Evidence of compliance with existing employment rules to working time 5.3 Working intensity and pattern that is appropriate for learning 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. 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>Supervision meetings: Commencement of SPIN, Mid-point and completion of SPIN – <i>Dates in eportfolio</i></p>
<p>6. Specific Post requirements 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>Exact dates (for LTFT % worked and FTE) for all SPIN training posts – minimum of 12 months required</p>
<p>7. Enabled to learn new skills, necessary skills and curriculum coverage (speciality specific) <i>This section can be used to highlight marker conditions to which trainee should be exposed or the numbers ofcases/procedures that trainee will be expected to see/do. Ensure that it is clear whether any numbers are for wholetraining programme or per annum</i></p>	<p>Educational Meetings – For example: neonatal diabetes at ACDC trainee day – <i>date in eportfolio</i> Case Based Discussions – patient with cystic fibrosis diabetes Clinics – Type 2 diabetes clinic</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>Logbook – Number of diabetes clinics attended Logbook – number of diabetes clinics observed and number of diabetes clinics carried out independently <i>List patients in a labelled folder in personal library</i> Clinics – Transition clinics attended – <i>dates in eportfolio</i> Adult clinics attended Educational Meetings – Diabetes Transition</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>List of diabetes MDT/Clinical governance meetings attended – <i>dates in eportfolio</i> List of diabetes network meetings attended-virtual acceptable but evidence of learning and reflection essential List educational meetings and relevant courses attended-virtual acceptable but evidence of learning and reflection essential</p>
<p>10. Clinical audit</p> <p>10.1 Evidence of trainees participation in 2 audit projects on a diabetes related topic</p>	<p>List 2 x diabetes audits</p>
<p>11. Teaching appraising and assessing</p> <p>11.1 Opportunities for formal and informal teaching</p>	<p>Presentations Teaching sessions – For example: to medical students during induction week/ on the ward or membership exams (bedside teaching) – <i>dates in eportfolio (virtual teaching acceptable)</i></p>