

SPIN Module curriculum in

Paediatric Gastroenterology, Hepatology and Nutrition

SPIN Version 3

Approved for use from 1 May 2023

This document outlines the curriculum and Assessment Strategy to be used by paediatricians completing the RCPCH SPIN module in Paediatric Gastroenterology, Hepatology and Nutrition. This is Version 3.0. As the document is updated, version numbers will be changed, and content changes noted in the table below.

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Version number	Date issued	Summary of changes
2.0	1st April 2020	Full redevelopment of the curriculum, moving from knowledge based capabilities to behavioural Learning Outcomes and aligning with RCPCH Progress.
3.0	May 2023	
4.0	December 2024	Update to references to Level 3 training and Progress curriculum

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Section 1

Introduction and purpose

Introduction to SPIN modules

Special Interest (SPIN) modules are the additional training/experience a paediatrician completes so that they can be the local lead and part of the clinical network, providing for children and young people who need specialist paediatric care.

Practitioners providing expert care will be able to seek training in an area of special interest or in aspect(s) of sub-specialty care. This will involve training, assessment and supervised care. It will vary in breadth and depth, depending upon the specific SPIN syllabus. The SPIN can be completed before or after CCT. It should be feasible to complete the SPIN in no more than 12 months full-time training. SPIN training does not have to be completed within one placement or over one continuous period. The assessment of whether the practitioner has attained the required Learning Outcomes will only examine evidence relating to a maximum of five calendar years prior to submission.

Please note that SPIN Modules are:

- NOT a route to GMC sub-specialty accreditation;
- NOT required for GMC accreditation in paediatrics or any of its sub-specialties;
- NOT sub-specialty training and not equivalent to subspecialty training.

SPINs are undertaken and assessed within the working environment, under the guidance of a designated Supervisor, and recording evidence within ePortfolio. The RCPCH SPIN Lead, usually a member of the relevant College Specialty Advisory Committee (CSAC), is responsible for reviewing completed portfolios and confirming if successful completion of the SPIN is to be awarded.

More information regarding SPIN modules, including how to apply to undertake a SPIN and how to submit evidence against the Learning Outcomes, is contained in the SPIN Module Guidance on the RCPCH SPIN webpages: www.rcpch.ac.uk/spin.

Purpose statement

This purpose statement demonstrates the need for practitioners to undertake a SPIN module in Paediatric Gastroenterology, Hepatology and Nutrition including the benefits to and expectations of a practitioner undertaking training in this area.

This SPIN module meets the current and future anticipated requirements of the health service, reflecting patient and population needs:

General Paediatricians based in Local Provider Hospitals (previously known as District General Hospitals) are increasingly part of wider clinical networks. By supporting practitioners in developing an interest in a specific area of practice, SPIN modules help facilitate more patients being seen by a local paediatrician with the expertise to treat certain specific conditions nearer to their home, rather than having to travel to a Specialised Paediatric Unit (previously known as Tertiary Centre).

Children and young people with complex medical disorders should be cared for as close to home as possible, as part of a managed clinical network. Network centres should have at least one Consultant Paediatrician with a special interest in Paediatric Gastroenterology, Hepatology and

Nutrition. This paediatrician with a special interest may provide specialist input to smaller units within the network. They need to work as part of a network to improve the quality of care delivered to children and young people. This is detailed in 'Quality Standards for Paediatric Gastroenterology, Hepatology and Nutrition' which has been jointly produced by the British Society of Paediatric Gastroenterology, Hepatology and Nutrition (BSPGHAN) and Royal College of Paediatrics and Child Health (RCPCH).

The audit of standard nine of 'Facing the Future: Standards for Acute General Paediatric Services' ranked Gastroenterology, Hepatology and Nutrition joint last, for paediatricians in inpatient and paediatric assessment units being able to access specialist opinion for children and young people with complex and specialist needs. A survey sent to all Paediatric Clinical Directors in the UK to understand how Gastroenterology and Hepatology services are provided to children and young people demonstrated great heterogeneity in the way services are delivered. This highlights the importance of availability of quality SPIN training in PGHAN, which aims to:

- ensure all children and young people throughout the UK receive high quality care, at the right time and in the right place, through services organising themselves into clinical networks;
- facilitate networks that establish clear, agreed and shared protocols that will enhance the quality and efficiency of care being delivered to ensure equity of access.
- This SPIN module addresses the needs and expectations articulated in the standards document, outlined above, by training practitioners to take on the care of children and young people with complex gastrointestinal disorders in the local provider unit and advise local colleagues using shared care protocols across the whole network. This will include:
 - a) management of common conditions such as gastro oesophageal reflux, functional constipation, food allergy, management of faltering growth including nutritional support, and functional gastrointestinal disorders
 - b) management of children and young people with coeliac disease, including a local clinic with specialist dietetic support
 - c) shared care for specialised conditions such as Inflammatory Bowel Disease, liver diseases as well as children and young people on home parenteral nutrition, including IBD clinic, local day case administration of monoclonal antibody therapy, nutritional rounds/clinics for children and young people with complex need.

This SPIN module considers interdependencies across related specialties and disciplines, and has been developed and supported by the relevant key stakeholders:

This SPIN module has been developed by the Gastroenterology, Hepatology and Nutrition CSAC, in conjunction with other stakeholders. The learning from the module also has some overlap with General Paediatric skills and involves engagement with safeguarding children and young people services, child mental health services and all other paediatric specialties including surgery.

There will be joint working with dietetics, speech and language therapy, community and school health services. Nutritional needs of a child and young person are a universal requirement of all sub-specialties and the practitioner may provide leadership and support to the extended multi-disciplinary team (MDT).

Consultees involved in the development of this SPIN include:

- Representatives of the PGHAN CSAC
- Representatives of BSPGHAN
- Paediatric Trainees
- Representative of RCPCH College Specialty Advisory Committees (CSACs) – General Paediatrics, Paediatric Allergy, Immunology and Infectious Diseases (PAIID) and the RCPCH Committee for Child Protection
- RCPCH Officer for Training
- RCPCH & Us
- Coeliac UK
- Crohn's and Colitis UK

The SPIN module supports flexibility and the transferability of learning, and provides a clearly-defined professional role for practitioners who have completed a SPIN. It sets out what patients and employers can expect from practitioners, who have gained the SPIN:

Following successful completion of this SPIN module and Specialty level Paediatric training, the CCT holder will be competent to take up a post as a practitioner with a special interest in Gastroenterology, Hepatology and Nutrition; the precise focus being dependant on the needs of the unit.

By the end of training, it is expected that practitioners who have completed this SPIN will have a sound understanding of the following Learning Outcomes:

- Recognises, assesses and advises on delivering the holistic nutritional requirements of children and young people with a broad range of acute and chronic conditions.
- Recognises, assesses and manages children and young people with a range of functional gastroenterological conditions and motility related disorders.
- Recognises, assesses and manages children and young people with a range of medical and surgical conditions, including those presenting with gastrointestinal bleeding.
- Recognises, assesses and manages infants, children and young people with conditions involving liver, biliary tract and pancreas.
- Recognises, assesses and manages children and young people with a broad range of conditions associated with malabsorption of food, mostly presenting with chronic diarrhea, including those related to allergies, intolerances or inflammation.
- Recognises the indications, risks and benefits of invasive and non-invasive procedures used to investigate the gastro-intestinal tract in children and young people.

Requirements to undertake this SPIN module

Applicant requirements

This SPIN module is available to General Paediatric Specialty level trainees and all post-CCT paediatricians with an interest in Paediatric Gastroenterology, Hepatology and Nutrition, who are able to access sufficient training opportunities to meet the requirements of the SPIN curriculum.

Trainees who are interested in undertaking this SPIN module should approach their Head of Schools and Training Programme Director in the first instance, to confirm if the necessary posts would be available and request support in undertaking this training. SPIN applicants are required to demonstrate that they have support of their Training Programme Director and have an appropriate Educational and Clinical Supervisor in place. Further guidance for post-CCT applicants is available on the RCPCH website.

Applicants with relevant recent experience may use some retrospective evidence towards their SPIN module in some cases. It is expected that this retrospective evidence is not older than 6 months and the majority of the spin programme will be completed prospectively. Please see the applicant guidance at www.rcpch.ac.uk/spin for more details on how to apply to undertake a SPIN module.

Training duration

The SPIN training should be feasible within 12 months if working full-time, or pro-rata for Less Than Full Time (LTFT) training. It is expected that to achieve the necessary Learning Outcomes, a practitioner will need to train in the following clinical settings:

- It is recommended that the person completing SPIN has at least 6 months Full Time Equivalent (FTE) experience in a specialised centre and at least 6 month FTE placement in local provider unit, under the supervision of a local Paediatrician with an interest in Gastroenterology. However, this can be achieved flexibly through rotations mainly in local provider units with a period of experience in a regional Paediatric Gastroenterology Centre.
- The practitioner will benefit from attending local clinics and MDT meetings, including local safeguarding meetings.
- The practitioner should attend Gastroenterology clinics, ward rounds, MDT, and nutrition rounds.
- It will be important for the practitioner to attend other related paediatric sub-specialty clinics such as Allergy, Respiratory and Neurodisability.
- The practitioner will need to have inpatient experience of intestinal failure/parenteral nutrition.
- The practitioner will need to have an understanding of the endoscopy process but does not need to have endoscopy skills.
- There would be the potential to adapt the SPIN for a specific focus such as Inflammatory Bowel Disease, complex nutritional disorders, nutritional support, liver disease.
- A suitable training centre is one that is currently approved for higher specialist training (see sub-specialist training section of the RCPCH website for more detail).

Out of Programme (OOP) training

Trainees should not need to take Out of Programme (OOP) to complete a SPIN module. Undertaking a SPIN will NOT be considered as a basis for an OOP, except in exceptional circumstances and where both Deaneries/ Local Education Training Boards (LETBs) agree and approve the SPIN module programme. These exceptional circumstances include applications from trainees where approved training in a particular special interest is not available in their current Deanery/ LETB. Permitting OOP for these exceptional circumstances provides a positive contribution to workforce planning in regions where limited approved SPIN modules are available. For example, smaller sub-specialties such as Nephrology or Immunology & Infectious Diseases (IID) may only be available in a limited number of Deaneries/LETBs. In order for applications utilising OOP to be considered by the RCPCH, both Deaneries/LETBs must agree and approve the SPIN module programme and provide clear justification as to why the module could not be completed in the trainee's current Deanery/LETB.

Post requirements

When applying to undertake a SPIN, applicants must demonstrate that they will be able to access the necessary learning opportunities and placements, and an appropriate Educational and Clinical Supervisor is in place. Additional requirements for delivering this SPIN module are provided in the checklist in Appendix B. This addresses any specific requirements; for example, the human or physical resource experiences the trainee will need to be able to access in order for the curriculum to be delivered successfully. Please contact the SPIN Lead (usually the relevant CSAC), if further guidance is required.

#VoiceMatters

RCPCH &Us is a children, young people and family network, working with diverse groups of young patients, their families and friends across the UK each year. Through the work of RCPCH &Us we keep children and young people at the centre of everything we do, supporting their voice to inform, influence and shape the work of RCPCH.

RCPCH is guided by the United Nations Convention on the Rights of the Child, particularly article 12 which encourages children and young people's voice in decision making and article 24, providing them with the best health care possible. You can find out more about the rights of the child, how it relates to your practice and useful resources at www.rcpch.ac.uk/rightsmatter.

Ensuring fairness and supporting diversity

The RCPCH has a duty under the Equality Act 2010 to ensure that its curriculum and assessments do not discriminate on the grounds of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex or sexual orientation.

Care has been taken when authoring the SPIN Module curricula to ensure as far as is reasonable and practicable that the requirements for those undertaking the module do not unnecessarily discriminate against any person on the basis of these characteristics, in line with the requirements of the Act.

The RCPCH seeks to address issues of equality, diversity and fairness during the development of SPIN curriculum in a range of ways, including:

- Curriculum content to be authored, implemented and reviewed by a diverse range of individuals. Equality and diversity data are gathered regularly for clinicians involved in the work of the RCPCH Education and Training division.
- Undertaking careful consideration of the Learning Outcomes and Key Capabilities to ensure that there is a clear rationale for any mandatory content, and thus there are no unnecessary barriers to access or achievement. Beyond these mandatory requirements, the assessment tools can be deployed in a more flexible and tailored manner, meeting the requirements of the individual trainee.
- All draft SPIN curricula to be reviewed specifically against the protected characteristics prior to sign-off, identifying any possible barriers and ensuring these are appropriately addressed.
- All SPINs are approved for use by the RCPCH Training and Quality Board (TQB). As the body responsible for production of the Annual Specialty Report, and receiving summary reports on the National Training Survey from Heads of Schools and other sources, the Committee is well placed to ensure the curriculum meets the needs and addresses any existing concerns of the trainee population.
- All SPIN curriculum documents will be published in font type and size that is appropriate for a wide range of audiences and optimised for readability. Information regarding the curriculum will be made available through a wide range of media, acknowledging differing learning styles.

The RCPCH is committed to gathering regular feedback from users of its SPIN modules, identifying any areas of bias or discrimination.

Please contact the RCPCH Quality and Training Projects team(qualityandtrainingprojects@rcpch.ac.uk) if you have any concerns regarding equality and diversity in relation to this SPIN module curriculum.

Quality assurance and continual improvement

Ensuring quality in delivery

A robust quality assurance and improvement framework is required to support an effective curriculum and assessment strategy. The purpose of this is to promote the improving quality of the trainee experience, and to ensure that the curriculum content, delivery, assessment and implementation is monitored and reviewed in a planned, systematic and appropriate manner.

The RCPCH quality infrastructure for training and assessment is based on the Plan, Do, Check, Act (PDCA) cycle, introduced by Deming. In the context of the Programme of Assessment, this means planning for effective assessment processes, executing those processes, review and evaluation including data analysis and multi-source feedback, and finally implementing any required changes.

The framework to support this curriculum will comprise several quality improvement tools and processes that impact on the overarching aspects of assessment. These will include:

- 1. Effective selection mechanisms.** The SPIN application process ensures trainees will have the necessary capacity, supervision, and access to the breadth and depth of experience needed to meet the requirements of the SPIN module.
- 2. Gathering and responding to feedback.** RCPCH gathers feedback in a structured way from SPIN module completers and uses this and feedback from employers to support the regular review of SPIN modules.
- 3. Review of attainment and evidence.** CSACs (or another designated SPIN Lead) review all completed SPIN portfolios prior to sign-off, ensuring consistency.
- 4. Quality assurance of assessments.** This takes a variety of forms during the development, delivery and monitoring of assessment tools, as outlined in the RCPCH Progress Assessment Strategy.
- 5. Quality of assessors and supervisors.** All SPIN applicants are required to have a suitable Educational Supervisor to support their SPIN training. RCPCH supports this through the Educational Supervisor course and a variety of guidance and resources available on the College website.
- 6. Scheduled reviews.** All SPINs are subject to review every three years, although they may be updated more regularly where required.

By applying the framework processes outlined above, the College will ensure that SPIN Modules are monitored and reviewed in a structured, planned and risk-based manner.

SPIN governance

The RCPCH's Training and Quality Board (TQB) has overall responsibility for the RCPCH SPIN curricula, working closely with the SPIN Lead. The TQB will monitor the performance of the SPIN through the relevant CSAC/ SPIN Lead and receive scheduled reviews of feedback from SPIN users.

SPIN module review and revision

SPINs are reviewed every three years to ensure they remain fit for purpose, meeting the intended service need. Reviews are led by the SPIN Lead (usually the relevant RCPCH CSAC), who will report to the TQB requesting any changes required. Where necessary, a SPIN can be updated before the three-year review is due, for example to reflect changes in guidelines.

Updated SPIN curricula will be published, making clear using the version tracking table at the front of each document what amendments have been made on each occasion. Where this amendment relates to a Key (mandatory) Capability, the TQB will issue guidance for trainees currently undertaking the SPIN module, noting any implications of the amendment and whether they are required to meet the new criteria. Amendments will only be made where a clear rationale exists for doing so, and every effort will be made to minimise any negative impact on the trainee.

Section 2

Paediatric Gastroenterology, Hepatology and Nutrition

How to use the RCPCH SPIN curriculum

This curriculum provides a framework for training, articulating the standard required to achieve the SPIN module and progress as indicated within the purpose statement. The curriculum ensures the quality and consistency of training and assessment, and encourages the pursuit of excellence in all aspects of clinical and wider practice. It must be referred to throughout training, as the practitioner records evidence demonstrating their developing skills and knowledge.

The curriculum should be used to help design training programmes locally, that ensure all practitioners undertaking SPIN training can develop the necessary skills and knowledge, in a variety of settings and situations. The curriculum is designed to ensure it can be applied in a flexible manner, meeting service needs as well as supporting each trainee's own tailored Learning and Development Plan.

The curriculum comprises a number of Learning Outcomes, which specify the standard that practitioners must demonstrate to attain this SPIN module. They are encouraged to consider innovative ways of demonstrating how they have met the Learning Outcome.

Practitioners should record evidence against the Learning Outcomes throughout their SPIN training, including engaging in active reflective practice to support their own development. Their supervisor will review whether they are on target to achieve or have achieved the Learning Outcome(s), and will suggest specific areas of focus to ensure that the trainee achieves the Learning Outcome(s) by the end of their SPIN training period. The Illustrations may be a useful prompt for this.

Components of the SPIN curriculum

The **Learning Outcomes** are the outcomes which the practitioner must demonstrate they have met to be awarded this SPIN module. Progress towards achievement of the Learning Outcomes is reviewed at regular meetings with a designated supervisor. Learning Outcomes are mapped to the GMC's Generic Professional Capabilities (GPCs) framework.

The **Key Capabilities** are linked to specific Learning Outcomes, and are mandatory capabilities which must be evidenced by the practitioner, in their ePortfolio, to meet the Learning Outcome.

The **Illustrations** are examples of evidence and give the range of clinical contexts that the practitioner may use to support their achievement of the Key Capabilities. These are intended to provide a prompt to the SPIN practitioner and trainer as to how the overall outcomes might be achieved. They are not intended to be exhaustive, and excellent trainees may produce a broader portfolio or include evidence that demonstrates deeper learning. It is not expected that practitioners provide ePortfolio evidence against every individual illustration (or a set quota); the aim of assessment is to provide evidence against every Key Capability.

The **Assessment Grid** indicates suggested assessment methods, which may be used to demonstrate the Key Capabilities. Practitioners may use differing assessment methods to demonstrate each capability (as indicated in each Assessment Grid), but there must be evidence of having achieved all Key Capabilities and the overarching Learning Outcomes.

SPIN Learning Outcomes

This table contains the Learning Outcomes required for all trainees undertaking the RCPCH SPIN in Gastroenterology, Hepatology and Nutrition. Within the curriculum and throughout the syllabi, the Learning Outcomes are mapped to the GMC's GPCs. More information on the GPC framework is available from the GMC website: <https://www.gmc-uk.org/education/postgraduate/GPC.asp>.

Please note, trainees will also be required to complete their Specialty Level - Generic and General Paediatric Learning Outcomes in order to gain their Certificate of Completion of Training (CCT). Consultants undertaking a SPIN will already have demonstrated the required generic skills, knowledge and behaviours prior to having obtained their CCT. This SPIN curriculum only defines the specific Learning Outcomes for the stated focus, purpose and extent of remit stated for this SPIN module, and cannot be used to indicate capability in any other aspect of paediatrics.

SPIN Learning Outcome		GPCs
1	Recognises, assesses and advises on delivering the holistic nutritional requirements of children and young people with a broad range of acute and chronic conditions.	1, 2, 4, 6, 8, 9
2	Recognises, assesses and manages children and young people with a range of functional gastroenterological conditions and motility related disorders.	2, 4, 6, 7, 8, 9
3	Recognises, assesses and manages children and young people with a range of medical and surgical conditions, including those presenting with gastrointestinal bleeding.	1, 2, 3, 6, 9
4	Recognises, assesses and manages infants, children and young people with conditions involving liver, biliary tract and pancreas.	2, 3, 5, 9
5	Recognises, assesses and manages children and young people with a broad range of conditions associated with malabsorption of food, mostly presenting with chronic diarrhoea, including those related to allergies, intolerances and inflammation.	2, 3, 4, 6, 8, 9
6	Recognises the indications, risks and benefits of invasive and non-invasive procedures used to investigate the gastro-intestinal tract in children and young people.	2, 3, 6, 8, 9

The syllabus supporting these Learning Outcomes is provided on the following pages.

Learning Outcome 1

Recognises, assesses and advises on delivering the holistic nutritional requirements of children and young people with a broad range of acute and chronic conditions.	GPC 1, 2, 3, 4, 5, 6, 8, 9
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Key Capabilities

Recognises the benefits and risks associated with enteral and parenteral nutrition for paediatric patients at risk of poor nutrition.	GPC 2, 3, 4, 8
Monitors and manages enteral and parenteral nutrition and the associated common complications with a multi-disciplinary team.	GPC 2, 3, 4, 5, 9
Leads and develops a multi-disciplinary team in identifying and managing nutritional and growth challenges in children and young people.	GPC 5, 2, 6

Illustrations

1. Investigates, assesses and manages children with faltering growth with a MDT.
2. Describes how children and young people requiring special or exclusion diets (e.g. cow's milk free, gluten free) and can articulate how they have achieved adequate nutrition and ensure that they are monitored appropriately.
3. Provides input into the nutritional management of the child and young person with a neuro-disability and formulates a management plan with the family to ensure a safe feeding plan, involving appropriate members of the MDT (speech and language therapists, dietitians, and community and acute nursing staff).
4. Explains the risks and benefits of gastrostomy insertion, including in children and young people who have conditions that have implications on the risks and benefits e.g. previous GI surgery, ventriculo-peritoneal shunts. Counsels a family with a child and young person who will benefit from gastrostomy insertion.
5. Manages the child and young person who requires nasogastric or gastrostomy feeding. Recognises the indications, including the risks and precautions that should be taken and considers the long term plan for children and young people started on nutritional support.
6. Manages children who require jejunal feeding. Recognises the indications for naso-jejunal, gastro-jejunal and jejunostomy feeding, including the risks and precautions that should be taken for such route of feeding.
7. Manages short term parenteral nutrition in children and young people in the hospital setting, including monitoring and awareness of precautions and risks, particularly at initiation and weaning.
8. Manages home parenteral nutrition patients on a shared care basis with a tertiary centre, including initial management episodes of suspected sepsis and other associated complications.

9. Works with MDT to detect and monitor the physical manifestations of eating disorders and manages a patient at risk of re-feeding syndrome.
10. Leads the local MDT to formulate a plan to optimise nutrition for the child and young person with pancreatic insufficiency.
11. Manages a child and young person post gut surgery with emphasis on nutritional requirements, growth and fluid management.
12. Understands nutritional screening and its role in the acute and outpatient setting, including assessment of nutritional status and recognises the impact of over and undernutrition.

SPIN Learning Outcome 2

Recognises, assesses and manages children and young people with a range of functional gastroenterological conditions and motility related disorders.	GPC 2, 3, 4, 5, 6, 7, 8, 9
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Key Capabilities

Assesses and manages children and young people with functional gastroenterological disorders, using Rome classification.	GPC 2, 3, 4, 6, 7, 9
Assesses and manages children and young people with symptoms of gut dysmotility, including gastro-oesophageal disease (GORD) and constipation.	GPC 2, 4
Leads and develops a multi-disciplinary team in identifying and managing children and young people with complex non organic gastrointestinal symptoms, involving safeguarding professionals, when appropriate.	GPC 2, 5, 6, 7, 8

Illustrations

1. Manages infant presenting with symptoms of Gastro Oesophageal Reflux Disease (GORD) associated with poor feeding and faltering growth.
2. Manages a child presenting with feed aversion related to gastrointestinal causes.
3. Demonstrates ability to understand the indications, interpret findings and explain investigations such as bowel transit study.
4. Manages a child and young person with Eosinophilic oesophagitis.
5. Manages a child and young person presenting with chronic nausea and vomiting. Evidence knowledge of a range of gastroenterological conditions presenting with nausea and vomiting, which includes GORD, cyclical vomiting, functional dyspepsia and food intolerance and anxiety.
6. Manages a child and young person presenting with chronic and refractory constipation. Demonstrates the ability to explain the condition to the child, young person and their family, undertaking relevant investigations, including colonic transit study. Shows the ability to formulate a management plan, involving appropriate members of MDT (dietician, allied health professionals and education).
7. Manages a child presenting with faecal soiling.
8. Manages a child and young person presenting with recurrent and complex non-organic gastrointestinal symptoms; this includes medical, educational and psychosocial aspects of care and attendances at MDT meetings. Demonstrates the ability to recognise and address safeguarding concerns, when indicated.

9. Assesses a child and young person with functional abdominal pain and differentiate them from organic causes, including consideration of red flags. Understands aetiology, including relevant psychosocial aspects and formulate management plan.
10. Evidences communication of functional gastrointestinal diseases diagnosis with families.

SPIN Learning Outcome 3

Recognises, assesses and manages children and young people with a range of medical and surgical conditions, including those presenting with gastrointestinal bleeding.	GPC 1, 2, 3, 4, 5, 6, 9
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Key Capabilities

Develops a framework to assess and manage children and young people with acute gastrointestinal bleeding in collaboration with a multidisciplinary team for stabilisation prior to transfer to specialised service, as appropriate.	GPC 1, 2, 3, 5, 6, 9
Formulates a provisional diagnosis and initiates management through knowledge of aetiologies, pathophysiology and presentations of all forms of gastrointestinal bleeding, in different age groups.	GPC 2, 3, 4, 9
Screens patients in the clinic setting using existing management guidelines to identify patients with gastrointestinal bleeding, who requires discussion with or referral to specialised centres and organises safe and effective shared care arrangements.	GPC 2, 3, 5, 6

Illustrations

1. Manages an infant with rectal bleeding.
2. Recognition and initial management of an infant/child with intussusception
3. Manages a child and young person with PR bleeding due to anal fissure/constipation.
4. Manages a child and young person with PR bleeding due to gastroenteritis.
5. Manages an older child beyond infancy with acute and recurrent PR bleed in whom Inflammatory Bowel Disease is suspected, with onward referral as appropriate.
6. Differentiates between the spectrum of conditions in a child and young person with painless PR bleeding and demonstrates knowledge of relevant investigations.
7. Demonstrates understanding of the multiple causes of rectal bleeding in children and young people.
8. Initial management of a child and young person with malaena and/or hematemesis.
9. Initial management in severe upper GI bleed.

SPIN Learning Outcome 4

Recognises, assesses and manages infants, children and young people with conditions involving liver, biliary tract and pancreas.	GPC 2, 3, 5, 9
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Key Capabilities

Initiates first line investigations and treatments in acute and chronic liver disease in consultation with a specialised unit.	GPC 2, 3, 5, 9
Identifies signs and symptoms of gall bladder and biliary tract diseases and initiates management of such conditions.	GPC 2, 4, 6
Suspects, diagnoses and treats pancreatic disorders.	GPC 2, 3

Illustrations

1. Investigates and manages various causes of neonatal pathological jaundice, including prolonged jaundice according to local and national guidelines.
2. Initiates investigations in an infant with suspected biliary atresia and facilitate referral to the liver unit.
3. Manages an infant and child with biliary atresia who had Kasai procedure in a shared care arrangement with the liver unit.
4. Undertakes shared care, including monitoring of child or young person for effects of immunosuppressants and central line complications, where appropriate in recipients of liver transplant.
5. Manages a child and young person with infective causes of hepatitis including liaison with a tertiary centre, where appropriate.
6. Manages a child or young person with chronic liver disease such as autoimmune hepatitis and Wilson's disease, in collaboration with a specialised centre.
7. Recognises warning signs of deteriorating liver disease in a child or young person with chronic liver disease, looked after in shared care with a specialised liver centre.
8. Manages complications of metabolic liver diseases in a shared care arrangement with a tertiary centre.
9. Recognises and initiates investigation and management in a child and young person with acute cholecystitis.
10. Recognises and manages a child and young person with acute pancreatitis.
11. Recognises and initiates investigation and management of a child and young person with suspected fatty liver disease.

SPIN Learning Outcome 5

Recognises, assesses and manages children and young people with a broad range of conditions associated with malabsorption of food, mostly presenting with chronic diarrhoea, including those related to allergies, intolerances or inflammation.	GPC 2, 3, 4, 5, 6, 8, 9
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Key Capabilities

Recognises and assesses children and young people with chronic diarrhoea, undertaking relevant investigations and refer to a specialised centre for further investigations, if appropriate.	GPC 2, 3, 5, 6, 9
Leads and develops the multi-disciplinary team in the management of a child and young person with Inflammatory Bowel Disease, including extra luminal complications.	GPC 2, 3, 4, 5, 6, 8, 9
Recognises and manages growth and nutrition related issues in children and young people with a range of conditions associated with food malabsorption, such as coeliac disease and Inflammatory Bowel Disease.	GPC 2, 3, 4

Illustrations

1. Manages an infant presenting with chronic diarrhoea with faltering growth and undertake relevant investigations. Demonstrates knowledge of aetiology of diarrhoea, including congenital diarrhoea.
2. Manages a child presenting with gastrointestinal symptoms in the context of atopy and non IgE mediated food allergy and/or food intolerances with faltering growth and understands the indications for different allergy tests (such as skin prick and Specific IgE).
3. Manages children and young people presenting with signs and symptoms suggestive of Inflammatory Bowel Disease in a shared care arrangement with the specialised centre. Evidences knowledge of the medical and dietary management of child and young person with a diagnosis of IBD, including monitoring of those on immunosuppressant medications and supervising administration of biologics.
4. Manages a child and young person presenting with extra intestinal symptoms, suggestive of Inflammatory Bowel Disease.
5. Explains surgical interventions which might be needed in a child and young person with Inflammatory Bowel Disease.
6. Manages the diet and nutrition of a child and young person on dietary exclusions or specialised diet, together with a Paediatric Dietician.
7. Recognises, diagnoses and manages children and young people with coeliac disease in a designated clinic with a Paediatric Dietitian, in line with available national guidelines.

SPIN Learning Outcome 6

Recognises the indications, risks and benefits of invasive and non-invasive procedures used to investigate the gastro-intestinal tract in children and young people.	GPC 2, 6, 8, 9
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Key Capabilities

Applies knowledge of the indications, risks and benefits of common gastro-intestinal endoscopic procedures and how the findings influence management.	GPC 2, 6, 8, 9
Applies knowledge of the indications, risks and benefits of common gastro-intestinal physiology procedures and how the findings influence management.	GPC 2, 6, 8, 9
Demonstrates appropriate knowledge to request and interpret the reported findings of radiology and nuclear medicine investigation of the gastro-intestinal tract.	GPC 2, 6, 8

Illustrations

1. Attends paediatric gastroenterology endoscopy sessions, observes common endoscopic procedures, including colonoscopy, oesophago-gastroduodenoscopy (OGD), polypectomy, gastrostomy insertion and change. Follows the patient journey from consent, pre-operative checks, the procedure and post-procedure feedback to children, young people and their families.
2. Identifies which patients should be referred for endoscopy.
3. Describes the risks and benefits of OGD and colonoscopy.
4. Identifies patients who need urgent endoscopic procedures and refers appropriately.
5. Works in collaboration with MDT, including a speech and language therapist, identifying which patients should be referred for swallow-video-fluoroscopy and counsels families on the results, including advice on modes of safe feeding.
6. Identifies and manages patients who will benefit from contrast imaging of the GI tract (such as barium swallow, barium meal).
7. Identifies which patients should be referred for nuclear medicine investigations relevant to the GI tract in children (Meckel's scans) and young people (DEXA scans) and describes how the result affects patient management.
8. Identifies which patients should be referred for cross-sectional imaging of the GI tract (MRI, MRE and CT scan) to investigate the gastro-intestinal system and recognises when modes such as ultrasound can be used in their place.
9. Identifies when patients should be referred for GI physiology investigations, including pH studies, impedance, transit studies and ano-rectal manometry, and describe how the results of these investigations influences management.

Section 3

Assessment Strategy

How to assess the Paediatric Gastroenterology, Hepatology and Nutrition SPIN

The Assessment Strategy for this SPIN module is aligned with the RCPCH Progress Programme of Assessment, utilising a range of different formative and summative assessment tools.

The Programme of Assessment comprises a wide range of assessment tools, which must be used in conjunction with the Blueprint to develop skills and assess capability. The assessments are knowledge, skills and capability-based, capturing a wide range of evidence which can be integrated to reach a judgement as to the trainee's achievement of the SPIN module Learning Outcomes. The assessments also provide trainees with the opportunity to obtain developmental feedback. Further information on all assessment instruments can be found within the RCPCH Progress Programme of Assessment.

The key aspect of the Assessment Strategy for this SPIN module is the Blueprint, on the following page. This grid indicates the assessment requirements to support and demonstrate achievement of the Learning Outcomes and, where appropriate, the minimum number of assessments required. Please note, not all assessments are mandated or their use prescribed, such that practitioners may use other assessment types from the list within the Programme of Assessment, where they and their supervisors feel this is appropriate.

The mandatory assessments are:

1. Evidence through reflection of experience and learning from:
 - participation at IBD Clinics and MDT
 - participation at Coeliac clinic
 - participation at Nutrition MDT
 - counselling families about indications, risks and benefits of endoscopy.
2. At least one work based assessment each showing:
 - involvement in management of a child with IBD
 - chronic diarrhoea
 - faltering growth
 - GI bleeding
 - a liver condition.
3. DOCs showing evidence of involvement in communication regarding referral and transfer of patients to tertiary centres and communication of management details with referring centres.
4. Leader CBDs to evidence leadership of an MDT and ward round.
5. At least 1 safeguarding CBD involving a GI condition.
6. Evidence of communication with patients/families regarding diagnosis of functional gastrointestinal disorders and medically complex conditions.

All evidence for the SPIN Module Learning Outcomes, including assessment outcomes, should be recorded within the practitioner's ePortfolio.

Assessment blueprint

This table suggests assessment tools which may be used to assess the Key Capabilities for these Learning Outcomes.

This is not an exhaustive list, and trainees are permitted to use other methods within the RCPCH Assessment Strategy to demonstrate achievement of the Learning Outcome, where they can demonstrate these are suitable.

Key Capabilities	Assessment / Supervised Learning Event suggestions									
	Other	Paediatric Carers for Children Feedback (Paed CCF)	Paediatric Multi Source Feedback (MSF)	Handover Assessment Tool (HAT)	Clinical Leadership Assessment Skills (LEADER)	Discussion of Correspondence (DOC)	Acute Care Assessment Tool (ACAT)	Directly Observed Procedure / Assessment of Performance (DOP/AOP)	Paediatric Case-based Discussion (CbD)	Paediatric Mini Clinical Evaluation (Mini-CEX)
1.1 Recognises the benefits and risks associated with enteral and parenteral nutrition for paediatric patients at risk of poor nutrition.		✓	✓		✓				✓	✓
1.2 Monitors and manages enteral and parenteral nutrition and the associated common complications with a multi-disciplinary team.		✓	✓	✓	✓		✓		✓	✓
1.3 Leads and develops a multi-disciplinary team in identifying and managing nutritional and growth challenges in children and young people.			✓		✓				✓	✓
2.1 Assesses and manages children and young people with functional gastroenterological disorders, using Rome classification.		✓	✓			✓			✓	✓
2.2 Assesses and manages children and young people with symptoms of gut dysmotility, including gastro-oesophageal disease (GORD) and constipation			✓			✓	✓		✓	✓
2.3 Leads and develops a multi-disciplinary team in identifying and managing children and young people with complex non organic gastrointestinal symptoms, involving safeguarding professionals, when appropriate.			✓		✓	✓		✓	✓	✓
3.1 Develops a framework to assess and manage children and young people with acute gastrointestinal bleeding in collaboration with a multidisciplinary team for stabilisation prior to transfer to specialised service, as appropriate.		✓	✓	✓	✓	✓	✓	✓	✓	✓
3.2 Formulates a provisional diagnosis and initiates management through knowledge of aetiologies, pathophysiology and presentations of all forms of gastrointestinal bleeding, in different age groups.			✓		✓	✓	✓		✓	✓

Key Capabilities	Assessment / Supervised Learning Event suggestions									
	Other	Paediatric Carers for Children Feedback (Paed CCF)	Paediatric Multi Source Feedback (MSF)	Handover Assessment Tool (HAT)	Clinical Leadership Assessment Skills (LEADER)	Discussion of Correspondence (DOC)	Acute Care Assessment Tool (ACAT)	Directly Observed Procedure / Assessment of Performance (DOP/AOP)	Paediatric Case-based Discussion (CbD)	Paediatric Mini Clinical Evaluation (Mini-CEX)
3.3 Screens patients in the clinic setting using existing management guidelines to identify patients with gastrointestinal bleeding, who requires discussion with or referral to specialised centres and organise safe and effective shared care arrangements.		✓	✓	✓		✓	✓		✓	✓
4.1 Initiates first line investigations and treatments in acute and chronic liver disease in consultation with a specialised unit.			✓	✓	✓	✓			✓	✓
4.2 Identifies signs and symptoms of gall bladder and biliary tract diseases and initiates management of such conditions.			✓	✓		✓	✓		✓	✓
4.3 Suspects, diagnoses and treats pancreatic disorders.			✓			✓	✓	✓	✓	✓
5.1 Recognises and assesses children and young people with chronic diarrhoea, undertaking relevant investigations and refer to a specialised centre for further investigations, if appropriate.		✓	✓			✓		✓	✓	✓
5.2 Leads and develops the multi-disciplinary team in the management of a child and young person with Inflammatory Bowel Disease, including extra luminal complications.		✓	✓	✓	✓	✓	✓	✓	✓	✓
5.3 Recognises and manages growth and nutrition related issues in children and young people with a range of conditions associated with food malabsorption, such as coeliac disease and Inflammatory Bowel Disease.			✓		✓	✓	✓		✓	✓
6.1 Applies knowledge of the indications, risks and benefits of common gastro-intestinal endoscopic procedures and how the findings influence management.			✓			✓	✓	✓	✓	✓
6.2 Applies knowledge of the indications, risks and benefits of common gastro-intestinal physiology procedures and how the findings influence management.			✓			✓	✓	✓	✓	✓
6.3 Demonstrates appropriate knowledge to request and interpret the reported findings of radiology and nuclear medicine investigation of the gastro-intestinal tract.			✓			✓			✓	✓

Appendices

Appendix A: Further guidance and resources

Doctors completing this SPIN module may find the following resources useful to support their training. Please note, there is no mandatory requirement to use any or all of these resources, and RCPCH cannot be held responsible for the quality or content of any external materials.

Assessment

RCPCH Assessment web pages www.rcpch.ac.uk/assessment
RCPCH Assessment Strategy www.rcpch.ac.uk/progress

Recommended reading

1. Relevant journals including Archives of Diseases of Childhood, Journal of Paediatric Gastroenterology and Nutrition (JPGN), Lancet Child and Adolescent Health, Frontline Gastroenterology, Gut
2. Relevant Text books including:
 - Beattie, R.M. et al (Ed.), 'Oxford Specialist Handbook of Paediatric Gastroenterology, Hepatology and Nutrition (2nd ed)', OUP Oxford, 2018.
 - Kliegman, R & St Geme, J., 'Nelson's Textbook of Paediatrics (21st ed)', Elsevier, 2019.
 - Guandalini, S., 'Essential Paediatric Gastroenterology, Hepatology and Nutrition', McGraw-Hill Education/Medical, 2004.
 - Kelly, D. 'Practical approach to Paediatric Gastroenterology, Hepatology and Nutrition', John Wiley & Sons, 2014.
3. Published guidelines including those from NICE, RCPCH, BSPGHAN, ESPGHAN, BSG, BAPEN, ECCO, UpToDate
4. Websites for relevant organisation such as BSPGHAN, BSG, BAPEN, ESPGHAN, ECCO, and charity websites such as CICRA, Coeliac UK, CCUK, CLDF

Training events or courses

1. Membership of the British Society of Paediatric Gastroenterology, Hepatology and Nutrition (BSPGHAN) and participation in BSPGHAN Learning events e.g. annual conference, annual trainee study day, Gut Clubs and regional network Trainee study days
2. European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN): Conference and masterclasses
3. The British Association for Parenteral and Enteral Nutrition (BAPEN): Study days and annual conference
4. RCPCH: Masterclasses, annual conference

Other useful resources

1. www.rcpch.ac.uk/hiddenhealth
2. www.rcpch.ac.uk/resources/emoji-card-game
3. www.medicinesforchildren.org.uk/our-meds-management-mobile-app
4. www.rcpch.ac.uk/resources/transition-adult-services

For more information

More information regarding SPIN modules, and all current SPIN curricula and supporting forms, can be found at www.rcpch.ac.uk/spin

For general queries regarding SPIN modules, including eligibility to undertake a SPIN or how to apply, please contact training.services@rcpch.ac.uk

For queries relating to the SPIN curriculum, please contact qualityandtrainingprojects@rcpch.ac.uk

The SPIN Lead is a member of the Gastroenterology, Hepatology and Nutrition CSAC. See the RCPCH website for the contact details of the current SPIN Lead:
www.rcpch.ac.uk/membership/committees/paediatric-gastroenterology-hepatology-nutrition-csac

Appendix B: Criteria for SPIN delivery

The following requirements should be met when designing a training programme for a SPIN module. Adherence to these criteria will help ensure the practitioner will have the necessary support and access to experiences which they will require in order to successfully complete this SPIN module. These criteria are framed against the standards set out in Excellence by Design: standards for post graduate curricula (GMC 2017).

Purpose	
<ul style="list-style-type: none"> • Access to regular supervised clinics • Service specific requirements to enable achievement of the curriculum e.g. day case facilities, imaging. • Opportunities to work with shared care networks in primary and secondary care. • Opportunities to work with shared care clinical guidelines and protocols. • The learning environment is safe for patients and supportive for learners and educators. The culture is caring, compassionate and provides a good standard of care and experience for patients, carers and families. (Taken from GMC Promoting Excellence) 	<p>CSAC specific requirements:</p> <ul style="list-style-type: none"> • Recommended at least six months training post in a specialised Paediatric Gastroenterology Unit. • Recommended at least six months training post in a local provider unit with Educational supervision from a Paediatrician with an interest in Gastroenterology. • The posts are in units which participate in a Paediatric Gastroenterology Clinical care Network.
Governance and strategic support	
<ul style="list-style-type: none"> • The Site must ensure that Supervisors and trainers can effectively deliver the RCPCH Assessment Strategy. • The trainee will be able to participate in leadership and management activities 	<p>CSAC specific requirements:</p> <ul style="list-style-type: none"> • Supervisor should be Paediatric Gastroenterologist/Paediatrician with a special interest.
Programme of learning	
<ul style="list-style-type: none"> • Specific requirements for structured learning opportunities. • Exposure within the clinical environment will provide sufficient learning opportunities to meet the requirements of the curriculum. • Access to multidisciplinary teams consisting of a minimum of nurses, physiotherapists, occupational therapists. • The post should provide a training experience that enables completion of the trainees' PDP 	<p>CSAC specific requirements:</p> <ul style="list-style-type: none"> • Access to Paediatric Gastroenterology clinics and those in related sub-specialties e.g. allergy, respiratory, neurodisability, to develop required knowledge and skills. • Access to regular MDT team meetings to discuss complex patients. • Access to endoscopy lists/histology meetings to enable discussion of referral criteria, practicalities and results.

Programme of assessment	
<ul style="list-style-type: none"> The site has adequate levels of Educational Supervisors. Consultants with either General Paediatric or Sub Specialty expertise can be matched to the requirements of the trainee. It is important that Educational supervisors can provide supervision and have the required remission to facilitate this, i.e. 1 PA per week per 4 trainees. Supervision must ensure patient safety. Support for trainers and supervisors must be available within the Trust. 	<p>CSAC specific requirements:</p> <ul style="list-style-type: none"> N/A – as per generic.
Quality assurance and improvement	
<ul style="list-style-type: none"> The Site must ensure that Supervisors and trainers can effectively deliver the RCPCH Assessment Strategy. The trainee will be able to participate in leadership and management activities 	<p>CSAC specific requirements:</p> <ul style="list-style-type: none"> Supervisor should be Paediatric Gastroenterologist/Paediatrician with a special interest.
Programme of learning	
<ul style="list-style-type: none"> The post will allow the trainee to participate in audits and clinical improvement projects The post will allow the trainee to actively engage with the teaching, assessing and appraising of junior staff The post will allow opportunity for the trainee to engage in research activities 	<p>CSAC specific requirements:</p> <ul style="list-style-type: none"> Opportunities within Paediatric Gastroenterology, Hepatology, Nutrition.

