

SPIN Module curriculum in

Paediatric Infectious Diseases

SPIN Version 2
Approved for use from 1 April 2021

This document outlines the curriculum and Assessment Strategy to be used by Paediatricians completing the RCPCH SPIN module in Paediatric Infectious Diseases.

This is Version 2. As the document is updated, version numbers will be changed, and content changes noted in the table below.

Version number	Date issued	Summary of changes
2	April 2021	Full redevelopment of the curriculum, moving from knowledge based capabilities to behavioural Learning Outcomes and aligning with RCPCH Progress.

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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. They are designed to meet a specific service need, with possible roles suitable for those who have completed a SPIN module identified within the SPIN purpose statement.

Trainees, Consultants and others 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 clinician 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 GRID 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 clinicians to undertake a SPIN module in Paediatric Infectious Diseases (PID), and the benefits to and expectations of a clinician 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 in District General Hospitals (DGHs) are increasingly part of wider clinical networks. By supporting General Paediatricians in developing an interest in a specific area of practice, SPIN modules help facilitate more patients being seen by a Paediatrician with the expertise to treat certain specific conditions nearer to their home, rather than having to travel to a major paediatric unit.

Infectious diseases are the most common acute paediatric presentations and a core part of every Paediatrician's clinical work. Increasingly, however, children and young people (CYP) and paediatric services require access to specialist expertise in paediatric infectious diseases. ¹ This increased demand has been in large part driven by the growing threat of antimicrobial resistance (AMR), outbreaks/epidemics/pandemics, vaccine hesitancy, as well as increasing numbers of CYP who are vulnerable to infection because they are receiving immunosuppressive treatments or suffer from inborn errors of immunity. There is also a need for specialist advice for infants born with congenital infections such as CMV and those exposed to infectious agents *in utero* such as syphilis or hepatitis B. This RCPCH SPIN module in Paediatric Infectious Diseases has been designed to equip Paediatricians with specialist skills to address these challenges in the DGH setting.

There is significant variation in the character and impact of infectious diseases on child health across childhood and adolescence that require equity in accessing expertise in PID regardless of where they live. Therefore, a core aim of this SPIN module is to facilitate the development of capabilities that will enable SPIN Paediatricians in the DGH setting to improve the care of CYP with infectious diseases, and develop shared care management models with other professionals, including tertiary PID services. These shared care models should ideally be individualised to the needs of the child and young person, the family, the setting and local epidemiology. After completing this SPIN module, Paediatricians should be able to:

- a) Lead and effectively liaise in the initial investigation of a CYP presenting to the DGH with a complex, congenital or unusual infection, or suspected disorder of immunity, in discussion with the relevant specialties, laboratory services and tertiary paediatric infectious diseases and immunology services. Examples of such clinical presentations include:
 - i) pyrexia of unknown origin;
 - ii) fever in the returning traveller;
 - iii) complex surgical infections, e.g. bone/joint infection or post-appendicectomy infection.
 - iv) infection in immunocompromised CYP;

¹ NHS England. 2013/14 NHS Standard Contract For Paediatric Medicine: Immunology And Infectious Diseases [Internet]. NHS England; 2013 [cited 2020 Nov 6]. Available from: https://www.england.nhs.uk/wp-content/uploads/2013/06/e03-paedi-medi-immun-infec-disease.pdf

- v) recurrent infection:
- vi) acute hyperinflammatory conditions such as Kawasaki disease or paediatric inflammatory multisystem syndrome temporally associated with SARS CoV-2 infection (PIMS-TS):
- vii) suspected tuberculosis and management of contacts; and
- viii) congenital infections (e.g. CMV) and prevention of mother-to-child transmission, e.g. hepatitis B (or HIV in conjunction with tertiary services).
- b. Share care of CYP with infectious diseases and immune disorders in joint clinics and multidisciplinary (MDT) meetings with support from tertiary paediatric infectious diseases and immunology services, via either face-to-face or virtual consultations, e.g. telephone reviews, video teleconferencing.
- **c.** Advise local clinicians on infectious diseases in CYP including vaccination queries and antimicrobial choices from consultants working in the DGH team or GPs.
- **d. Develop new or existing local services** with established evidence in reducing the burden and healthcare costs associated with infectious diseases, such as:
 - i) infection prevention and control (IPC);
 - ii) response to outbreaks/epidemics/pandemics,
 - iii) paediatric out-patient antimicrobial therapy (pOPAT) as part of strategies to promote ambulatory care (early discharge or admission avoidance) which can result in significant resource savings, such as over 500 bed days per year in a UK tertiary children's hospital;^{2,3}
 - iv) antimicrobial stewardship (AMS) to combat the rising rates of AMR by optimising antibiotic use and reducing ineffective prescribing as per the World Health Organisation (WHO) Global Action Plan on AMR.⁴
- e. **Participate in PID networks** locally and nationally to improve the provision of care for CYP with infectious diseases in local primary and secondary care, by developing patient pathways, overseeing infection-related governance activities, attending regular MDTs with tertiary centres and promoting the uptake of relevant clinical guidelines.

The SPIN module in Paediatric Infectious Diseases will provide a standardised framework of knowledge and clinical skills that can be adapted to local circumstances and devolved healthcare systems. This will promote confidence in the standard of care provided by SPIN trainees to CYP with infectious diseases whilst also offering flexibility to adapt to the demands of their local context. The SPIN module will also develop skills in providing individualised care with particular attention to family's socioeconomic and cultural context.

² Chapman ALN, Patel S, Horner C, Green H, Guleri A, Hedderwick S, et al. Updated good practice recommendations for outpatient parenteral antimicrobial therapy (OPAT) in adults and children in the UK. JAC-Antimicrob Resist [Internet]. 2019 Sep 1 [cited 2020 Nov 20];1(dlz026). Available from: https://doi.org/10.1093/jacamr/dlz026

³ Patel S, Burzio V, Green H, Rees S, Tebruegge M, Jones C, et al. The Impact of Pediatric Outpatient Parenteral Antibiotic Therapy Implementation at a Tertiary Children's Hospital in the United Kingdom. Pediatr Infect Dis J [Internet]. 2018;37(12). Available from: https://journals.lww.com/pidj/Fulltext/2018/12000/The_Impact_of_Pediatric_Outpatient_Parenteral.13.aspx

⁴ World Health Organisation. Global Action Plan on Antimicrobial Resistance [Internet]. World Health Organisation; 2015 [cited 2020 Nov 6]. Available from: https://apps.who.int/iris/bitstream/handle/10665/193736/9789241509763_eng.pdf?sequence=1

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

The Paediatric Infectious Diseases and Immunology CSAC and the British Paediatric Allergy, Immunity and Infection Group (BPAIIG) have supported the development of this SPIN. Feedback from Consultants in Paediatric Infectious Diseases and Immunology (and Consultant General Paediatricians with a special interest in Paediatric Infectious Diseases and Immunology), from the four nations has been integral in shaping this SPIN so that it can be adapted to devolved healthcare systems and the local context of the SPIN candidate. CSAC and BPAIIG are key stakeholders in the Paediatric Infectious Diseases SPIN.

Paediatricians undertaking this SPIN will work in partnership with Paediatric Infectious Diseases and Immunology sub-specialists in a network alongside specialist nurses, pharmacists and clinical scientists in a variety of inpatient and outpatient settings to deliver holistic patient centred care.

Close interdisciplinary relationships with primary care, other paediatric, surgical and diagnostic specialities, as well as allied professions, are a cornerstone of paediatric infectious diseases and immunology practice. Paediatricians completing this SPIN will work closely with other infection specialties including microbiology, virology and infection prevention and control (IPC). They will be asked to advise surgical colleagues on the management of complex infection in their patients such as orthopaedics, otolaryngology (ENT), and paediatric surgery, as well as antimicrobial prophylaxis. Liaison with specialties managing immunocompromised CYP, such as oncology and rheumatology, will also be a core part of their work.

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

Following successful completion of this SPIN module and Level 3 General Paediatric specialty training, the CCT holder will be competent to take up a post as a Consultant General Paediatrician with a special interest in Paediatric Infectious Diseases.

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

- 1. Initial management and shared care CYP with complex, congenital or unusual infections.
- 2. Instigation of first line investigation and management of suspected immunodeficiency and management of infection in the immunosuppressed child.
- 3. Improving care pathways for CYP with infectious diseases.

Upon completion of this SPIN, clinicians will be able to perform the following roles:

- Local clinical lead for Paediatric Infectious Diseases
- Local link for Paediatric Infectious Diseases network
- Paediatric link for local IPC team
- Paediatric link for local pOPAT service
- · Paediatric link for local antimicrobial policies and stewardship team
- Paediatric infectious diseases link for perinatal team, including obstetrics, midwifery, and neonatology.

To continue their on-going development following completion of the SPIN, it is recommended that clinicians:

- Engage in regular clinical work and participate in multidisciplinary meetings as part of a paediatric Infectious diseases and immunology network.
- Join and maintain membership of relevant professional societies including BPAIIG, European Society of Paediatric Infectious Diseases (ESPID) and the UK Paediatric Antimicrobial Stewardship (UKPAS) network as well as the Children's HIV Association (CHIVA) and the Paediatric TB Network (pTBnet) as appropriate.
- Participate in local and national CPD activities, including those offered by relevant professional societies.
- · Complete regular audit projects relevant to paediatric infection and immunology
- Are supported by their employer with sufficient Direct Clinical Care (DCC) and Supporting Professional Activity (SPA) sessions in their job plan to deliver the service and maintain competencies.

During SPIN training, it is recommended that clinicians identify a CYP group with relevant experiences to visit, listening and learning from their experiences and reflecting with their supervisor on how to improve clinical and service practice. The #VoiceMatters section of this document raises the views of CYP and their families. This can be used to inform practice, discussions with supervisors and colleagues, as well as improving understanding and awareness of patient and family experiences.

Requirements to undertake this SPIN module

Applicant requirements

This SPIN module is available to General Paediatric Level 3 trainees and all post-CCT Paediatricians with an interest in Paediatric Infectious Diseases who are able to access sufficient training opportunities to meet the requirements of the SPIN curriculum.

Clinicians 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 extra 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 that has been agreed with the CSAC.

Applicants with relevant recent experience may use some retrospective evidence towards their SPIN module in some cases, where this is no more than six months in a ST4+ level (or equivalent) clinical post in a specialist PID centre. 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 for full-time trainees, or pro-rata for Less Than Full Time (LTFT) trainees. It is expected that to achieve the necessary Learning Outcomes, a clinician will need to train in the following clinical settings:

- · At least six months within a specialist PIID service;
- Six months in acute care or general paediatrics in a DGH, building on learning from six months specialist training and putting experience into practice. For the second six months placements in aligned services, such as Paediatric Oncology, PICU, NICU or Rheumatology would be beneficial but not essential. To ensure that the SPIN trainee is able to achieve their competencies, this placement should have the opportunity to develop a relevant governance/QI/audit, project involving for example, AMS, pOPAT or management of infection in immunocompromised CYP.

A suitable training centre is one which is currently approved by RCPCH for run-through training in paediatrics (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. Paediatric Infectious Diseases

SPIN candidates would normally be expected to link to their regional Infectious Diseases Centre for SPIN placements. 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.

Meeting GMC training requirements

All training must comply with the GMC requirements presented in *Promoting excellence:* standards for medical education and training (2017). This stipulates that all training must comply with the following ten standards:

Theme 1: Learning environment and culture

- S1.1 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.
- S1.2 The learning environment and organisational culture value and support education and training, so that learners are able to demonstrate what is expected in Good Medical Practice and to achieve the learning outcomes required by their curriculum.

Theme 2: Educational governance and leadership

- S2.1 The educational governance system continuously improves the quality and outcomes of education and training by measuring performance against the standards, demonstrating accountability and responding when standards are not being met.
- S2.2 The educational and clinical governance systems are integrated, allowing organisations to address concerns about patient safety, the standard of care, and the standard of education and training.
- S2.3 The educational governance system makes sure that education and training is fair and is based on the principles of equality and diversity.

Theme 3: Supporting learners

S3.1 Learners receive educational and pastoral support to be able to demonstrate what is expected in Good Medical Practice, and to achieve the learning outcomes required by their curriculum.

Theme 4: Supporting educators

S4.1 Educators are selected, inducted, trained, and appraised to reflect their education and training responsibilities.

S4.2 Educators receive the support, resources and time to meet their education and training responsibilities.

Theme 5: Developing and implementing curricula and assessments

- S5.1 Medical school curricula and assessments are developed and implemented so that medical students are able to achieve the learning outcomes required for graduates.
- S5.2 Postgraduate curricula and assessments are implemented so that doctors in training are able to demonstrate what is expected in Good Medical Practice, and to achieve the learning outcomes required by their curriculum.

It is the responsibility of each Deanery/LETB to ensure compliance with these standards for paediatric training, and to notify the RCPCH if further support is required in achieving this. Training delivery must also comply with the requirements of the Conference of Postgraduate Medical Deans' (COPMeD), The Gold Guide: a reference guide for postgraduate specialty training in the UK (8th ed.).

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 is 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 Education and Training Executive (ETE). 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 Standards Manager (qualityandstandards@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 a number of 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 Education and Training Executive (ETE) has overall responsibility for the RCPCH SPIN curricula, working closely with the SPIN Lead. The ETE 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 ETE 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 Capability, the ETE 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.

#VoiceMatters

RCPCH &Us is a children, young people and family network, working with over 2000 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.

To support the development of this SPIN, we have reviewed the voice and views of children, young people and their families who have worked with RCPCH &Us over the last 12 months. You can find out more about RCPCH &Us at www.rcpch.ac.uk/and_us.

What children, young people and families said

"The best doctor is someone who can change your feelings of health can help you on the worst day possible" RCPCH &Us

It can be hard for us and our families when something going on that we don't fully understand, that sounds serious or could affect others like with something infectious. We can be worried, nervous and trying to be strong for everyone else, including you. It helps us when people take time, when they are patient, kind and explain things in different ways for different people in our family, so that we can understand what is going on. Sometimes we need to have conversations and time with you separately from our family members so that we can talk to you about things that we might not want to mention in front of each other.

"The best doctor is informed about national and local support services for children and young people, signposting and engaging with them" RCPCH &Us

There is so much to understand when you are told about different conditions or treatments, medicines and rules that we have to follow. We wish that we were told sooner about local support groups or services and national charities that can help us to understand things like living understanding how you live with the condition or manage the symptoms, or to talk to someone who isn't your doctor to get help understanding things.

Conversations about injections and vaccinations can be difficult as not everyone always agrees. Lots of children and young people know that they are important and help to keep us healthy and well, but sometimes the adults that look after us are worried about what might happen if we do have them. It is important that you take time to talk to all of us about the worries we might have like having an allergic reaction, or not understanding why it is important or thinking it might give us other conditions. It helps if you are calm, listen well, explain things clearly and let us come back for another conversation if we need it, as well as talking to parents/carers separately because they might have worries that they don't want to mention in front of their children.

"There should be more information/education about vaccinations and explain why they are still needed even if the disease isn't really there any more" RCPCH &Us

Having an illness or condition that people can't see can be hard for them and you to understand. The hardest bit can be getting help for your condition and doctors thinking about how to help make sure you have good mental health too. Sometimes mental health can be worse when you have got a medical condition. Having doctors who know how to talk to us about mental health as well as our physical health is important. Talking about how we are coping and feeling should be an everyday normal conversation, not just something that is mentioned or checked once.

"Mental health is equally important; it might even be more important than physical health" RCPCH &Us

Sometimes there are things going on at home that might be making our conditions worse but it might be hard for us to talk about them or we might be embarrassed or frustrated that things aren't changing. You might be able to help us by writing to the council if we are in temporary accommodation or helping us to know what to do. It would be great if you find out about your local area or national charities and have this ready to explain to us or our families, and to remind us regularly when you see us as it is easy to forget or lose the information when there are lots of other things going on. Thinking about all of us as needing caring for and helping us to find that care, helps us all to cope with what is going on now.

We also know that virtual appointments are going to be around for a while to help the NHS while it isn't safe for everyone to come into clinics and hospitals at the same time.

"Offering online appointments issue is that sometimes at home with the family there is no safe space to have confidential call and feel safe that no one is listening in" RCPCH &Us

There are a few things that can be done to help us have good appointments whether they are on the phone or using video.

- 1. Reassure us about how it will work
- 2. Give us choice of how to talk with you
- 3. Help us to keep it private when we are at home
- 4. Help us to prepare for our virtual appointment
- 5. Make it easy for people without good WiFi access
- 6. Make it clear and simple about how we get help when we need it

"Remember that for some young people it is becoming too much with everything happening in their bedroom: school, friend socials, mental health appointments/health consultations. You can't get away from it space wise" RCPCH &Us

Thank you for doing this course to be the best doctor ©

"the best doctor is someone like you, kind, funny, happy and listens to me and my family" RCPCH &Us

Section 2

Paediatric Infectious Diseases SPIN curriculum

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 clinician records evidence demonstrating their developing skills and knowledge.

The curriculum should be used to help design training programmes locally that ensure all trainees 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 clinicians must demonstrate to attain this SPIN module. Trainees are encouraged to consider innovative ways of demonstrating how they have met the Learning Outcome.

Trainees are strongly encouraged to record evidence against the Learning Outcomes throughout their SPIN training, including engaging in active reflective practice to support their own development. The supervisor will review whether the trainee is on target to achieve or has 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 trainee must demonstrate they have met in order 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 framework.

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

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

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

SPIN Learning Outcomes

This table contains the generic Learning Outcomes required for all clinicians undertaking the RCPCH SPIN in Paediatric Infectious Diseases. 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 Paediatric generic and General Paediatric Level 3 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 competence in any other aspect of Paediatrics.

	SPIN Learning Outcome						
1	Leads the initial management of CYP presenting with complex, congenital or unusual infection.	1,2,4,5					
2	Leads the initial investigation and management of infection in immunocompromised CYP or suspected inborn errors of immunity.	1,2,5					
3	Acts as the local lead within a regional network to develop and improve clinical care for CYP with infectious diseases.	1, 2, 3, 4, 5, 6, 8, 9					

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

SPIN Learning Outcome 1

Leads the initial management of CYP presenting with complex, congenital	GPC 1,2,4,5
or unusual infections.	

Key Capabilities

Leads locally on the investigation and management of pyrexia of unknown origin and fever in a returned traveller.	GPC 1,2,5
Recognises CYP with inflammatory disorders (e.g. Kawasaki Disease, haemophagocytic lymphohisotiocytosis (HLH), PIMS-TS and periodic fever syndromes) whilst maintaining awareness of their broad differential diagnosis e.g. acute leukaemia.	GPC 1,2
Manages uncomplicated surgical and orthopaedic infections in collaboration with the relevant specialty, e.g. bone and joint infections with orthopaedic services, and post-appendicectomy infection with general/paediatric surgical services,	GPC 1,2
Leads the management of CYP who have been in contact with an individual with TB, and the treatment of latent TB and uncomplicated pulmonary TB within a regional network, while acting as a local link for shared care of non-pulmonary, complex or drug-resistant tuberculosis.	GPC 1,2,4,5
Assesses, investigates and manages common congenital infections, including prevention of mother-to-child treatment, as well as recognising and initiating investigation of unusual or complex congenital infections within a regional network.	GPC 1,2
Advises local colleagues on the investigation of lymphadenopathy and management of infectious causes.	GPC 1,2,5

llustrations

- 1. Demonstrates appropriate assessment, investigation and initial management of a CYP with pyrexia of unknown origin.
- 2. Demonstrates appropriate assessment, investigation and initial management of a **fever in a returned traveller** in collaboration with specialist services, including the Rare and Imported Pathogens Laboratory when appropriate.
- 3. Participates in the management of CYP with **suspected inflammatory disorders**, e.g. Kawasaki syndrome, HLH, PIMS-TS, periodic fever syndromes within a multidisciplinary regional network.
- 4. Formulates an appropriate management plan for CYP with **bone and joint infection** in collaboration with orthopaedic services.
- 5. Formulates an appropriate management plan for CYP with **surgical infections** in collaboration with general and paediatric surgery services e.g. appendix abscess.
- 6. Investigates and manages CYP who have been in contact with a person with tuberculosis or a child with **suspected tuberculosis**, including the interpretation of the tuberculin skin test, interferon gamma release assays and chest radiography. Safely prescribes and monitors treatment for **latent tuberculosis** and **uncomplicated pulmonary tuberculosis** with the

- support of a regional network.
- 7. Investigates and manages an infant or child at risk or with suspected **common congenital infections (cytomegalovirus, syphilis)**, including demonstrating awareness of antenatal care plans and counselling pregnant women, in conjunction with other relevant specialties e.g. obstetrics, neonatology, ophthalmology and audiology.
- 8. Works with neonatologists, obstetricians and midwives to prevent, diagnose and manage sepsis in the newborn.
- 9. Advises on the use of hepatitis B specific immunoglobulin and accelerated immunisation for hepatitis B-exposed infants.
- 10. Organises testing of **hepatitis B/C-exposed** and at-risk infants. monitors hepatitis B/C infected children within a regional network and supports specialist services treating hepatitis B/C infection.
- 11. Liaises with tertiary centres in the management of HIV-exposed infants.
- 12. Investigates and manages CYP presenting with **lymphadenopathy** in conjunction with relevant specialties (e.g. ENT, haematology, oncology).
- 13. Provides advice to GPs on the **community management** of CYP with complex, congenital and unusual infections (e.g. shared prescribing in long term therapy).

SPIN Learning Outcome 2

Leads the initial investigation and management of infection in immunocompromised CYP or suspected inborn errors of immunity.	GPC 1,2,5

Key Capabilities

Leads locally on the investigation and initiates the appropriate empirical antimicrobial treatment of immunocompromised CYP in collaboration with local microbiology services.	GPC 2, 5
Recognises CYP with possible inborn errors of immunity and initiates investigation in liaison with tertiary immunology services as appropriate.	GPC 1, 2, 5
Participates in shared care of children with inborn errors of immunity with tertiary immunology services.	GPC 1, 2, 5

llustrations

- Performs appropriate investigations in immunocompromised CYP presenting with infection, including consideration of central line-associated blood stream infection and opportunistic infection.
- 1. Liaises with local **paediatric oncology** shared care unit (POSCU) and tertiary oncology Consultants to ensure appropriate empirical antibiotic use in POSCUs.
- 1. Initiates and interprets appropriate initial investigations for **inborn errors of immunity** in CYP with recurrent, severe, unusual or persistent infections including **recurrent fever**.
- 1. Attends regional network clinics for CYP with inborn errors of immunity.
- 1. Demonstrates awareness of the principles of managing **immunoglobulin replacement therapy** in a DGH.

SPIN Learning Outcome 3

Acts as the local lead within a regional network to develop and improve	GPC 1, 2, 3, 4, 5,	
clinical care for CYP with infectious diseases.	6, 8, 9	

Key Capabilities

Develops regionally appropriate shared care models in conjunction with tertiary services to deliver care closer to home for CYP with chronic infectious diseases or inborn errors of immunity.	GPC 1, 2, 3, 5
Facilitates training in paediatric infectious diseases for local colleagues in primary and secondary care as part of a regional network, including the development, implementation and evaluation of clinical guidelines.	GPC 1, 2, 6, 8, 9
Delivers vaccination advice in conjunction with local immunisation services.	GPC 2, 4
Develops and leads antimicrobial stewardship activities to improve local judicious and correct use of antimicrobial prophylaxis and treatment in CYP.	GPC 2, 5, 6
Develops and leads a pOPAT service in partnership with community nursing services, pharmacy, microbiology and emergency medicine.	GPC 2, 5
Improves infection control in local neonatal and paediatric settings by working with the IPC team and nursing colleagues.	GPC 2, 6

llustrations

- 1. Uses secure videoconferencing facilities to conduct a shared care clinic.
- 2. Facilitates context-specific training and service improvement, examples could include: i) improving adherence to needlestick injury guidelines in the emergency department through training and audit; or ii) helps develop local guidelines for general practitioners on the evaluation of CYP from refugee/asylum seeking families; iii) improving the appropriate use of peri-operative antibiotics through training and audit.
- 3. Uses Immunisation against Infectious Disease (Green Book) to deliver appropriate vaccination advice to other healthcare professionals, and can perform patient-centred counselling for vaccine hesitant carers.
- 4. Demonstrates understanding of how local empirical **antimicrobial prophylaxis and treatment guidelines** are formulated (incorporating regional/national network guidance and in conjunction with microbiology, surgery specialties etc.) and how audit is used to improve adherence.
- 5. Leads **antimicrobial stewardship** activities in paediatric and neonatal settings and demonstrates awareness of appropriate outcome measures.
- 6. Leads a pOPAT board round.
- 7. Demonstrates understanding of how to **evaluate a pOPAT service** through clinical governance and audit.

- 8. Identifies areas where **local IPC guidance** requires adaptation for paediatric settings, e.g. cleaning of toys in a playroom, sibling visits to long term patients, pathways for infants of breast-feeding mothers with transmissible infection.
- 9. Understands the principles of conducting a root cause analysis for a hospital-acquired and healthcare-associated **infection outbreaks**.
- 10. Demonstrates understanding of how IPC teams produce guidance relevant to paediatric areas for **outbreaks**, **epidemics** and **pandemics**.

Section 3

Assessment Strategy

How to assess the Paediatric Infectious Diseases 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 trainees 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. Case-based Discussion (CbD):

- Investigation and initial management of CYP with pyrexia of unknown origin (Learning Outcome 1)
- Management plan for an infant born to a woman with perinatal infection e.g. CMV, viral hepatitis or syphilis (Learning Outcome 1)
- Investigation and initial management of CYP with recurrent infections (Learning Outcome 2)
- Decision to change antimicrobial regimen (agents, route or duration) in surgical (e.g. osteoarticular or abdominal) infection (Learning Outcomes 1 & 3)

2. Paediatric Mini Clinical Evaluation (ePaed MiniCEX):

Leading antimicrobial stewardship and/or pOPAT board round (Learning Outcome 3)

3. Clinical Leadership Assessment Skills (LEADER):

Leading antimicrobial stewardship and/or pOPAT board round (Learning Outcome 3)

All evidence for the SPIN module Learning Outcomes, including assessment outcomes, should be recorded within the clinician'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 clinicians 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			Assessme	nt / Sup	ervised	Learning	g Event	suggesti	ons	
	Paediatric Mini Clinical Evaluation (ePaed Mini-CEX)	Paediatric Case-based Discussion(ePaed CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	Paediatric Multi Source Feedback (ePaed MSF)	Paediatric Carers for Children Feedback (Paed CCF)	Other
Leads locally on the investigation and management of pyrexia of unknown origin and fever in a returned traveller.	✓	✓		✓				✓		
Recognises CYP with inflammatory disorders (e.g. Kawasaki Disease, haemophagocytic lymphohisotiocytosis (HLH), PIMS-TS and periodic fever syndromes) whilst maintaining awareness of their broad differential diagnosis e.g. acute leukaemia.	√	√		√				√		
Manages uncomplicated surgical and orthopaedic infections in collaboration with the relevant specialty, e.g. bone and joint infections with orthopaedic services, and post-appendicectomy infection with general/paediatric surgical services.	✓	✓		✓				✓	√	
Leads the management of CYP who have been in contact with an individual with TB, and the treatment of latent TB and uncomplicated pulmonary TB within a regional network, while acting as a local link for shared care of non-pulmonary, complex or drug-resistant tuberculosis.	√	✓			√				√	
Assesses, investigates and manages common congenital infections, including prevention of mother-to-child treatment, as well as recognising and initiating investigation of unusual or complex congenital infections within a regional network.	✓	✓			✓				✓	
Advises local colleagues on the investigation of lymphadenopathy and management of infectious causes.	~	✓			✓					
Leads locally on the investigation and initiates the appropriate empirical antimicrobial treatment of immunocompromised CYP in collaboration with local microbiology services.	✓	✓		√						
Recognises CYP with possible inborn errors of immunity and initiates investigation in liaison with tertiary immunology services as appropriate.	✓	✓			✓					

Key Capabilities		Assessment / Supervised Learning Event suggestions								
	Paediatric Mini Clinical Evaluation (ePaed Mini-CEX)	Paediatric Case-based Discussion(ePaed CbD)	Directly Observed Procedure / Assessment of Performance (DOP/AoP)	Acute Care Assessment Tool (ACAT)	Discussion of Correspondence (DOC)	Clinical Leadership Assessment Skills (LEADER)	Handover Assessment Tool (HAT)	Paediatric Multi Source Feedback (ePaed MSF)	Paediatric Carers for Children Feedback (Paed CCF)	Other
Participates in shared care of children with inborn errors of immunity with tertiary immunology services.	✓	✓			√			✓		
Develops regionally appropriate shared care models in conjunction with tertiary services to deliver care closer to home for CYP with chronic infectious diseases or inborn errors of immunity.		✓				√		✓	√	
Facilitates training in paediatric infectious diseases for local colleagues in primary and secondary care as part of a regional network, including the development, implementation and evaluation of clinical guidelines.		✓				✓		✓		
Delivers vaccination advice in conjunction with local immunisation services.	✓	✓			✓	✓				
Develops and leads antimicrobial stewardship activities to improve local judicious and correct use of antimicrobial prophylaxis and treatment in CYP.	✓	✓				~		~		
Develops and leads a pOPAT service in partnership with community nursing services, pharmacy, microbiology and emergency medicine.	✓	✓			✓	~		~		
Improves infection control in local neonatal and paediatric settings by working with the IPC team and nursing colleagues.	✓	✓				~		~		

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 www.rcpch.ac.uk/assessment www.rcpch.ac.uk/progress

Recommended reading

- Manual of Childhood Infections (Oxford Specialist Handbooks in Paediatrics): The Blue Book (4th editon). Edited by Mike Sharland et al (Oxford University Press, 2016)
- 2. Immunisation against Infectious Disease: The Green Book (UK Government). Available from https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book

Training events or courses

- 1. BPAIIG training days https://www.bpaiig.org
- 2. Oxford Infection and Immunity course http://www.oxfordiic.org/
- 3. ESPID online antibiotic course https://www.espid.org/content.aspx?Page=espid%20 online%20antibiotic%20management%20course
- 4. RCPCH Vaccines in Practice https://www.rcpch.ac.uk/resources/vaccines-practice-online-learning
- 5. PENTA Tr@ining in HIV and Congenital Infections https://penta-id.org/education/
- 6. ESPID Annual Congress https://www.espid.org
- 7. UK Paediatric Antimicrobial Stewardship meetings (contact Alicia.Demirjian@gstt.nhs.uk)
- 8. Imported Fever Service meetings (contact RIPL@phe.gov.uk)
- 9. Rare Imported Pathogens Laboratory training day (contact RIPL@phe.gov.uk)

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 spin@rcpch.ac.uk.

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

The SPIN Lead is a member of the Paediatric Allergy, Immunology and Infectious Diseases CSAC. See the RCPCH website for the contact details of the current SPIN Lead: https://www.rcpch.ac.uk/membership/committees/paediatric-allergy-immunology-infectious-diseases-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 clinician 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

- 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).

CSAC specific requirements:

- At least six months within a specialist PIID service.
- Six months in acute care or general paediatrics in a DGH or aligned service, such as Paediatric Oncology, PICU, NICU or Rheumatology. To ensure that the SPIN trainee is able to achieve their competencies, this placement should have the opportunity to develop a relevant governance/QI/audit, project involving for example, AMS, pOPAT or management of infection in immunocompromised CYP.

Governance and strategic support

- 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.

CSAC specific requirements:

 Opportunities to lead clinical management with appropriate supervision.

Programme of learning

- 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.

CSAC specific requirements:

- Sufficient opportunity to attend:
 - o microbiology rounds (PICU, NICU)
 - o tertiary infectious diseases and immunology clinics
 - o pOPAT rounds
 - o AMS rounds
 - o MDT with adult services

Programme of assessment

- 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.

CSAC specific requirements:

N/A

Quality assurance and improvement

- 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.

CSAC specific requirements:

N/A

