



Royal College of
Paediatrics and Child Health

Leading the way in Children's Health

SPIN Module curriculum in

Paediatric Respiratory Medicine

SPIN Version 2

Approved for use from 1 February 2021

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

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	February 2021	Full redevelopment of the curriculum, moving from knowledge based capabilities to behavioural Learning Outcomes and aligning with RCPCH Progress.

Table of Contents

Section 1	Introduction and purpose.....	4
	Introduction to SPIN modules.....	5
	Purpose statement.....	6
	Requirements to undertake this SPIN module.....	9
	Ensuring fairness and supporting diversity.....	12
	Quality assurance and continual improvement.....	13
	#VoiceMatters.....	15
Section 2	Paediatric Respiratory Medicine SPIN Curriculum.....	18
	How to use the RCPCH SPIN curriculum.....	19
	Components of the SPIN curriculum.....	19
	SPIN Learning Outcomes.....	20
	SPIN Learning Outcome 1.....	21
	Key Capabilities.....	21
	Illustrations.....	21
	SPIN Learning Outcome 2.....	23
	Key Capabilities.....	23
	Illustrations.....	23
	SPIN Learning Outcome 3.....	25
	Key Capabilities.....	25
	Illustrations.....	25
	SPIN Learning Outcome 4.....	27
	Key Capabilities.....	27
	Illustrations.....	27
Section 3	Assessment Strategy.....	28
	How to assess the Paediatric Respiratory Medicine SPIN.....	29
	Assessment blueprint.....	31
	Appendices.....	33
	Appendix A: Further guidance and resources.....	34
	Appendix B: Criteria for SPIN delivery.....	36

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. With the breadth of conditions to cover and several interdependencies, a minimum period of 18 months will be required to complete this module. This should include a minimum of six months to be spent in a tertiary centre and the remaining time in a district general hospital (DGH), with enough clinical throughput and shared care arrangements with a specialist paediatric respiratory centre. SPIN training does not have to be completed within one placement or over one continuous period and can be completed prospectively or retrospectively provided competencies are met and the post has been supervised by a specialist respiratory paediatrician or a paediatrician with special interest in paediatric respiratory medicine. 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 Respiratory Medicine (PRM) 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 are increasingly part of wider clinical networks. By supporting General Paediatricians in developing an interest in a specific area of practice, SPINs 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.

It is envisaged that a Paediatrician with SPIN in Paediatric Respiratory Medicine (PRM) will provide clinical expertise and act as a champion for multidisciplinary (MDT) education and professional development in PRM locally. The SPIN Paediatrician will work towards developing paediatric respiratory services locally, as well as liaising with and coordinating care with the tertiary centre.

Respiratory conditions in children and young people are common and the threshold of referral for expert advice to secondary care paediatric services is low. To illustrate this point, for a common chronic respiratory condition, such as asthma, General Practitioners are encouraged to refer the youngest children, as early as Step 2 of treatment for expert advice (BTS asthma guidance). It is therefore vital that we train Paediatricians who can provide this expertise locally.

There are an increasing number of children and young people with complex health conditions, including children who are born premature and now frequently survive into adulthood with ongoing respiratory morbidity. Such children may often have life-long respiratory co-morbidities and will frequently require ongoing treatments, such as additional inspired oxygen at home and ventilation at home, the provision of which can be managed nearer to their home with appropriate tertiary liaison and local leadership. Children and young people with conditions such as cystic fibrosis (CF) are already managed by well-established models of shared care delivery with local lead Paediatricians. Adult behaviours such as smoking and environmental factors, including air pollution affect the respiratory health of children and young people. There is a need for Paediatricians who can provide expert clinical advice on management of these children and young people, as well as advocate for the lung health of children and young people in the local area.

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

The management of children and young people's respiratory health overlaps with various other specialist clinical areas in addition to Paediatric Respiratory Medicine. These interdependencies include skills in areas such as Paediatric Allergy, Immunology, Intensive Care and Paediatric Neurology. Paediatricians completing SPIN in Respiratory Medicine will have developed the skills to interact and consult with these specialities and be the consultant responsible for co-ordinating care.

This SPIN module has been authored by Dr Sonal Kansra, Dr Jayesh M Bhatt, Dr Renu Khetan and Dr Simon Langton Hewer, all members of the PRM CSAC and/or BPRS executive committee.

Trainee input was provided by Dr Abigail Whitehouse, Dr Lina See and Dr Kushalinii Hillson during development of this SPIN.

We seek support/approval from other bodies, including Cystic Fibrosis Medical Association, CFMA (Dr Gary Connett), LTV/SPIN and Sleep (Neil Gibson), as well as Allergy.

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 PRM training, the CCT holder will be competent to take up a post as a Consultant General Paediatrician with a special interest in Paediatric Respiratory Medicine. The SPIN Paediatrician would work within a network of specialist care in collaboration with their regional tertiary respiratory centre.

By the end of training, it is expected that clinicians who have completed this SPIN will have a sound understanding to be able to manage the respiratory health and ill-health in infants, children and young people. They will acquire expertise in appropriate technical skills and ability to work in a network in liaison with the regional specialist paediatric respiratory centre.

They will demonstrate leadership, team working and management skills to coordinate safe and quality care of children and young people with respiratory conditions across hospital and community teams. They will be able to contribute to ongoing quality improvement and lead on service development in the field of Paediatric Respiratory Medicine.

The SPIN training in PRM will enable clinicians to undertake the following roles:

- Be the advocate and champion the respiratory health of children and young people;
- Be the lead for asthma services;
- Manage shared care CF service in conjunction with their regional centre;
- Provide shared care arrangements that allow children and young people with more complex respiratory disease to have as much care as possible delivered close to home;
- Be the lead for respiratory investigations, such as lung function (spirometry and interpretation) and oximetry;
- Initial management, including investigations and appropriate referrals for children with sleep disordered breathing;
- Lead on transition to adult care for older children with chronic respiratory conditions to appropriate adult services nearer to home.

Other specific roles a clinician who has completed this SPIN may be able to undertake include:

- Be the local liaison for regional cleft palate networks;
- Lead on infectious diseases and sleep;
- Collaborate with local, national and regional research projects.

Following completion of SPIN training, clinicians should ensure ongoing professional development and skill maintenance via revalidation. It is desirable that they have close links with their regional centres and are able to participate in educational and clinical activities in their regional centre, such as grand-rounds and departmental CPD meetings. This will also involve continuous acquisition of CPD in the field of Paediatric Respiratory Medicine by attending conferences at

the regional, national and international level. It is highly recommended that they are members of the regional Paediatric Respiratory medicine groups, national societies such as British Paediatric Respiratory Society (BPRS) and British Thoracic Society (BTS) and international societies such as European Respiratory Society (ERS) and European Cystic Fibrosis Society (ECFS).

During SPIN training, it is recommended that clinicians identify a children and young people's 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 children, young people 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 Respiratory Medicine, 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 that 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 an appropriate Educational and Clinical Supervisors are available.

Applicants with relevant recent experience may use some retrospective evidence towards their SPIN module in some cases. 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

For full-time trainees, the SPIN training should be feasible within 18 months or pro-rata for Less Than Full Time (LTFT) trainees. It is expected that to achieve the necessary Learning Outcomes, a trainee will need to train in the following clinical settings:

- Six months to a year in a tertiary Paediatric Respiratory Medicine centre;
- Remainder of the time in a DGH with enough clinical throughput and which has shared care clinics with the regional centre and it is desirable that the centre has access to facilities for respiratory investigations, such as spirometry and overnight oximetry.

A suitable training centre is one which is currently approved for higher specialist training (see sub-specialist training section of the RCPCH website for more detail).

Learning Outcomes can be retrospectively counted from previous relevant placements in Level 3 training, provided it meets the criteria within approved clinical settings, with an Educational Supervisor who is a Respiratory Paediatrician and within a reasonable time frame (six months) and in discussion with the SPIN supervisor in advance.

Out of Programme (OOP) training

Trainees should not need to take time 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 Board (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 training for these exceptional circumstances provides a positive contribution to workforce planning in regions where the availability of SPIN modules is limited. 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 Supervisors 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 Quality Committee (ETQC). 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 Quality Committee (ETQC) has overall responsibility for the RCPCH SPIN curricula, working closely with the SPIN Lead. The ETQC 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 ETQC 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 what amendments have been made on each occasion, using the version tracking table at the front of each document. Where this amendment relates to a Key (mandatory) Capability, the ETQC 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 we have a condition that we are just learning about or that we might have for the rest of our life. 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 our families.

“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.

When we have asthma or something that affects our breathing, we would really like it if our school, our GP and our specialist doctor all has the same information at the same time, and talks to each other to make sure that everyone knows what it happening. It can be really hard when one of the places looking after us doesn't have all the information, or doesn't believe when we tell them that our medicines has changed. It would help if we had a care plan that has all the up to date information and is easy to share between everyone. It would also be good if we got given tips to help us manage our breathing when we are at school, at friends houses, doing sports or out and about.

“I would like to know how to help control/prevent my asthma before exercise and during the winter when I can sometimes struggle in the cold weather. It would also be good for schools to have a better understanding of asthma” 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.

“We have black mould in the bedrooms. My parents are really worried, they clean it off every couple of months but it comes back. It affects our skin and we breathe it in” RCPCH &Us

Having an illness or condition that people can't see can be hard for people to understand. It helps when doctors think about how to help make sure you have good mental health as well as looking after physical health. 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

For people with long-term conditions, we might be seeing doctors for our whole lives. It can be worrying thinking that the doctor, nurses, receptionists and everyone you have grown up with in your children's clinic will change when you move to adults. This could be when you are still at school so it doesn't always feel like it is time to go to another hospital and be helped by a different doctor or nurse in a new clinic. It would be good to find out different ways to help that move and transition, like lots of appointments with both sets of doctors (old and new), virtual tours, phone calls and visits so you get used to it, and that you start talking about it really early so a few years before you have to move. 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

Questions to think about:

1. How are you going to support children and young people to feel comfortable in opening up? Are there tools and resources that could help?
2. Have you asked about other things in our house where we live that we might need help with like mould?
3. What ways will you help everyone to talk with you on their own in the way that is right for them?
4. What local and national charities do you know that help families dealing with respiratory illnesses?
5. How will you help to make virtual health appointments safe, private and confidential for patients?

Thank you to children, young people and families from the RCPCH &Us network for sharing their ideas and views used in this section.

Section 2

Paediatric Respiratory Medicine

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 which ensure that 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 complete 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 (see below) may be a useful prompt for this. The trainees are strongly encouraged to keep a log book via ePortfolio demonstrating the breadth of clinical experience in the speciality and linking it to Learning Outcomes.

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 Respiratory Medicine. 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		GPCs
1	Demonstrates proficiency in providing holistic care to manage respiratory health and ill-health in infants, children and young people, including the promotion of respiratory health.	1,2,4,5
2	Demonstrates expertise in technical skills, including knowledge and interpretation of spirometry, FeNO (exhaled nitric oxide), pulse oximetry and inhaler technique, recognising the indications and timing when to refer for more specialist investigations, including but not limited to flexible and rigid bronchoscopy, advanced respiratory imaging, exercise testing and hypoxic challenge tests.	1,2,3
3	Demonstrates ability to work in a network in liaison with regional specialist paediatric respiratory centre to manage complex acute and chronic conditions, such as cystic fibrosis (CF), mycobacterial diseases and long-term ventilation.	1,2,5
4	Demonstrates leadership, team working and management skills to coordinate safe and quality care of children and young people across hospital and community teams, looking after paediatric respiratory patients.	4,5

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

SPIN Learning Outcome 1

Demonstrates proficiency in providing holistic care to manage respiratory health and ill-health in infants, children and young people, including the promotion of respiratory health.	GPC 1,2,4,5
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Key Capabilities

Demonstrates proficiency in the diagnosis and management of asthma and other conditions presenting with wheeze.	GPC 1,2,4,5
Demonstrates understanding of key diagnostic tests and initiates management of children and young people presenting with respiratory symptoms, such as chronic cough, acute and recurrent respiratory infections and non-cystic fibrosis bronchiectasis.	GPC 1,2
Demonstrates proficiency in assessment and management of chronic neonatal lung disease (CNLD) and respiratory problems associated with neuro-disability.	GPC 1,2,5

Illustrations

1. The trainee reviews a three-year-old girl referred by her general practitioner with repeated episodes of wheezing. The trainee takes a directed history and agrees a management plan with the parents, including relevant investigations and a self-management plan.
2. A 14-year-old boy has had a recent admission to high dependency unit with an asthma attack. The trainee takes a detailed history exploring the medical, environmental, social and psychological aspects which may have led to this significant presentation. The trainee uses investigations and liaises with other professionals to clarify the relevant contributory factors. The trainee agrees a management plan with the young person and the family, including a tertiary referral.
3. A 10-year-old boy has presented with a persistent productive cough and nasal discharge. The trainee explores further symptoms in other organ systems and initiates initial investigations into the likely cause of this presentation. The trainee interprets the results and decides need for further specialist opinion for this child.
4. The trainee reviews a three-month-old baby who is failing to thrive, with a cough and has been admitted twice previously for suspected bronchiolitis. The trainee notices an increased work of breathing and cough when the child feeds. The trainee agrees an initial management plan with the family and discusses the need for more specialised investigations at regional centre.
5. A five-year-old was admitted three days ago with a high fever and right-sided pneumonia. The child has continued to spike fevers and is in a small amount of supplemental oxygen. The trainee investigates this child further to look at the reasons for non-defervescence and liaises with the regional centre regarding further management.

6. A 10-year-old child with epilepsy, spastic quadriparesis and severe learning difficulties is referred with frequent chest infections. The trainee takes a detailed history to understand the physiological vulnerabilities of the child and plans further investigations to clarify if the child is at risk for aspiration.
7. A baby born at 26 weeks gestation is now approaching term but still needs variable amounts of nasal cannula oxygen. The trainee assesses the child for suitability of discharge with home oxygen and discusses this with the family, including additional immunisations which may be needed to safeguard the baby.
8. An ex-premature 28 weeks gestation baby has now been out of oxygen for two months. The family wants to visit grandparents in Australia. The trainee discusses the requisites of safe air travel and makes a referral for hypoxic challenge.
9. A 15-year-old young person presents with sudden chest pain and is found to have a pneumothorax on chest X-ray. The trainee initiates initial management of a chest drain, taking into account complications. The trainee discusses further investigations and proposed interventions with the family and A/E team.

SPIN Learning Outcome 2

Demonstrates expertise in technical skills, including knowledge and interpretation of spirometry, FeNO (exhaled nitric oxide), pulse oximetry and inhaler technique, recognising the indications and timing when to refer for more specialist investigations, including but not limited to flexible and rigid bronchoscopy, advanced respiratory imaging, exercise testing and hypoxic challenge tests.	GPC 1,2,3
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Key Capabilities

Demonstrates the ability to perform and interpret respiratory investigations, such as spirometry and sleep oximetry, referring to a specialist, as necessary.	GPC 1,2,3
Uses the knowledge of indications and threshold for specialist respiratory investigations, such as flexible bronchoscopy and more detailed imaging to refer patients appropriately.	GPC 1,2,3
Demonstrates practical clinical/procedural skills, such as tracheostomy change.	GPC 1,2

Illustrations

1. The trainee reviews a 15-year-old girl in the clinic with asthma, who is a competitive swimmer. The girl has presented with increasing breathlessness and chest pain. The trainee takes a directed history to identify any red flags and the underlying causes. The trainee initiates and interprets basic investigations, such as spirometry and based on the results considers investigations, such as exercise tests.
2. The trainee sees a child in the clinic with symptoms of obstructive sleep apnoea and determines the appropriate level of sleep study required. The trainee takes part in departmental meetings to review the results of sleep studies and appropriately interprets the results.
3. A child with recurrent lower respiratory tract infections is referred to the clinic. After review, the trainee arranges investigations to look for underlying causes of recurrent infections, including but not limited to excluding immune deficiency, cystic fibrosis, PCD and pulmonary aspiration.
4. The trainee assesses patient with chronic or frequently recurrent cough and / noisy breathing, arranging appropriate investigations to determine the cause of the symptoms and associated comorbidities to identify when patients should be referred for GI physiology investigations, including pH studies and impedance, and describe how the results of these investigations influences management.
5. The trainee attends bronchoscopy procedure and follows the patient through the patient

journey from consent, pre-operative checks, the procedure and post-procedure feedback to children, young people and their families.

6. The trainee interprets X-rays independently; takes part in departmental radiology meetings and identifies which patients should be referred for further lung imaging (CT scan). The trainee understands the implications of findings on a CT-scan and explains these results to families.
7. The trainee spends time with the wider MDT to understand the role of speech and language therapy review and more complex investigations.
8. The trainee leads a simulation session on tracheostomy changes and demonstrates emergency tracheostomy change.
9. A 12-year-old patient with cystic fibrosis presents with worsening cough and breathlessness. The trainee interprets results from spirometry and sends sputum for appropriate microbiological investigations.

SPIN Learning Outcome 3

Demonstrates ability to work in a network in liaison with regional specialist paediatric respiratory centre to manage complex acute and chronic conditions, such as cystic fibrosis (CF), mycobacterial diseases and long-term ventilation.	GPC 1,2,5
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Key Capabilities

Demonstrates ability to manage expected problems in children and young people with cystic fibrosis and liaises with the regional centre where more specialised support is needed.	GPC 1, 2,5
Demonstrates understanding of key diagnostic tests and referral pathways of children and young people presenting with suspected mycobacterial diseases.	GPC 1,2
Identifies and manages common causes of sleep disordered breathing, including relevant investigations and refers to specialist centre for more complex investigations.	GPC 1,2,5
Demonstrates an understanding of basic respiratory support, including long-term ventilation via tracheostomy or mask ventilation interface.	GPC 1,2,5
Demonstrates ability to liaise with professionals in community (such as physiotherapists, dieticians, speech and language therapists and community nurses) to improve all aspects of care for these children and young people.	GPC 1,2,5

Illustrations

1. The trainee follows a patient through the pathway of investigations to confirm (or exclude) CF after a positive newborn screening result and if appropriate are involved in the counselling of the family regarding the result.
2. A child with CF is admitted with a pulmonary exacerbation. The trainee reviews recent clinical course and instigates appropriate management, including appropriate choice of antibiotics.
3. A child with CF presents after not opening bowels for three days. The trainee reviews the child in the clinic and in liaison with the CF team prescribes appropriate medications for a child presenting with DIOS.
4. The trainee attends the CF annual review clinic and understands the role of the wider MDT.
5. The trainee attends CF clinic and sees a young person with Cystic Fibrosis Related Diabetes (CFRD). The trainee speaks to the young person independently and with the family to explore concordance with treatment and any behaviours which may be a barrier to treatment.

6. The trainee attends CF transition clinics and takes part in the MDT assessment of readiness of the young person for transition of care to the adult services.
7. A child is now eligible for a new CFTR modulator therapy, the trainee takes an active role in counselling the patient and family on this change in management. They subsequently review the patient list to look into which other children may be eligible.
8. A child with a chronic cough, weight loss and night sweats presents to the clinic. The trainee arranges investigations for TB and refer to the local TB services, arranging contact tracing and treatment.
9. A four-year-old is referred by his general practitioner with snoring. The trainee assesses the child to look for features suggestive of obstructive sleep apnoea and its likely underlying causes. The trainee requests first line investigations and considers an onward referral to other specialties.
10. A child has a sleep study which demonstrates the need for non-invasive ventilation (NIV). The trainee explains NIV to the parents and explains why it is needed.
11. A child on NIV presents unwell to the Emergency department. The trainee reviews the child, in particular the care plan and adjusts the ventilation appropriately.
12. The trainee leads the local MDT for psychosocial problems in children with complex respiratory needs.
13. A child with a new tracheostomy is being discharged home. The trainee attends and provides medical input at the discharge planning meeting.

SPIN Learning Outcome 4

Demonstrates leadership, team working and management skills to coordinate safe and quality care of children and young people across hospital and community teams, looking after paediatric respiratory patients.	GPC 4,5
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Key Capabilities

Demonstrates ability to lead multidisciplinary teams caring for children and young people with complex health needs.	GPC 4,5
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Illustrations

1. A six-month-old baby, born at 28 weeks gestation, with persistent oxygen requirement and global developmental delay is reviewed by the trainee in the clinic. The trainee takes history and engages MDT input, involving allied health professional colleagues in dietetics, physiotherapy and nursing.
2. A 14-year-old girl with poorly controlled asthma presents with a third exacerbation in two months. The trainee takes history, sensitive to social context, including smoking and e-cigarette vapour exposure, explores compliance with inhaler technique, and initiates contact with school liaison and community nursing.
3. An eight-month-old baby with trisomy 21 and recurrent chest infection is due to be discharged home on oxygen. The trainee considers the practical aspects of home oxygen provision, including equipment and logistical home adaptations, family circumstances and external agency involvement in multidisciplinary discharge planning and follow up requirements.
4. A one-year-old patient, born at 27 weeks gestation with bronchomalacia and global developmental delay long-term patient requires non-invasive ventilation at night is due to be discharged home from the regional HDU. The trainee explores social history and housing context and initiates discussions with colleagues in hospital, and community.
5. A seven-year-old boy with Pompe disease and recurrent PICU admissions is reviewed in the clinic. The trainee explores family expectations sensitively and engages multi-professional discussion with relevant teams.
6. A 14-year-old boy with life limiting disease on 24-hour non-invasive ventilation presents unwell with a third sepsis episode in two months, requiring increasing respiratory support with each admission. The trainee initiates end of life discussions sensitively, explores family expectations and signposts hospice option.

Section 3

Assessment Strategy

How to assess the Paediatric Respiratory Medicine 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:

Paediatric Case Based Discussion (CBD), Paediatric Mini-Clinical Evaluation (Mini-CEX), Discussion of Correspondence (DOC), Multi Source Feedback (MSF) and clinical leadership assessment skills.

1. Evidence through reflection of experience and learning from:

- participation at Asthma Clinics and multidisciplinary team meetings
- participation at CF clinic and multidisciplinary team meetings
- participation at Non-Invasive ventilation clinic and multidisciplinary team meetings
- counselling families about indications, risks and benefits of bronchoscopy
- interpretation of lung function testing

2. At least one work-based assessment each showing involvement in the management of a child with:

- Asthma
- CF
- Other suppurative lung disease
- Chronic neonatal lung disease
- Respiratory problems associated with Neurodisability
- Sleep disordered breathing
- Non-invasive ventilation
- Chronic cough
- Complex pneumonia
- Pre-school wheezing

3. Mini-Cex for the management of a patient with tracheostomy and the training for an emergency tracheostomy change.

4. DOCs showing evidence of involvement in communication regarding referral and transfer of patients to tertiary centres and communication of management details with referring centres.
5. Leader CBDs to evidence leadership of an MDT and ward round.
6. At least one safeguarding CBD involving a respiratory condition.
7. Evidence of communication with patients/families regarding modifiable impacts on health such as parental smoking.

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	Assessment / Supervised Learning Event suggestions										
	Paediatric Mini Clinical Evaluation (ePaed Mini-CEX)	Paediatric Case-based Discussion (ePaed Cbd)	Paediatric Case-based Assessment of Performance (DOP/AoP)	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
Demonstrates proficiency in the diagnosis and management of asthma and other conditions presenting with wheeze.	✓	✓			✓	✓			✓		
Demonstrates understanding of key diagnostic tests and initiates management of children and young people presenting with respiratory symptoms, such as chronic cough, acute and recurrent respiratory infections and non-cystic fibrosis bronchiectasis.	✓	✓				✓			✓		
Demonstrates proficiency in assessment and management of chronic neonatal lung disease (CNLD) and respiratory problems associated with neuro-disability.	✓	✓			✓	✓			✓	✓	
Demonstrates the ability to perform and interpret respiratory investigations, such as spirometry and sleep oximetry, referring to a specialist, as necessary.	✓	✓	✓						✓		
Uses the knowledge of indications and threshold for specialist respiratory investigations, such as flexible bronchoscopy and more detailed imaging to refer patients appropriately.	✓	✓									
Demonstrates practical clinical/procedural skills, such as tracheostomy change.	✓	✓	✓								
Demonstrates ability to manage expected problems in children and young people with cystic fibrosis and liaises with the regional centre where more specialised support is needed.	✓	✓				✓	✓		✓		
Demonstrates understanding of key diagnostic tests and referral pathways of children and young people presenting with suspected mycobacterial diseases.	✓	✓									

Key Capabilities	Assessment / Supervised Learning Event suggestions									
	Other	Paediatric Carers for Children Feedback (Paed CCF)	Paediatric Multi Source Feedback (ePaed 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(ePaed Cbd)	Paediatric Mini Clinical Evaluation (ePaed Mini-CEX)
Identifies and manages common causes of sleep disordered breathing, including relevant investigations and refers to specialist centre for more complex investigations.						✓		✓	✓	✓
Demonstrates an understanding of basics respiratory support, including long-term ventilation via tracheostomy or mask ventilation interface.			✓			✓	✓	✓	✓	✓
Demonstrates ability to liaise with professionals in community (such as physiotherapists, dieticians, speech and language therapists and community nurses) to improve all aspects of care for these children and young people.					✓					
Demonstrates ability to lead multidisciplinary teams caring for children and young people with complex health needs.		✓			✓	✓		✓		

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

- ERS handbook Paediatric Respiratory Medicine
- Journal of CF
- Paediatric Respiratory Reviews (Journal)
- Oxford Handbook of Paediatric Respiratory Medicine

Training events or courses

The trainee should be encouraged to attend at-least one regional, one national and one international meeting every training year.

National meetings include:

- BTS winter meeting/BPRS session
- RCPCH BPRS session
- Kings John Price Conference

Other useful RCPCH &Us resources

- www.rcpch.ac.uk/hiddenhealth
- www.rcpch.ac.uk/resources/emoji-card-game
- www.rcpch.ac.uk/resources/transition-adult-services
- www.rcpch.ac.uk/being-me
- www.rcpch.ac.uk/resources/covid-19-us-views-rcpch-us
- www.rcpch.ac.uk/inside-story
- <https://stateofchildhealth.rcpch.ac.uk/voice-matters/>
- www.rcpch.ac.uk/covid-book-club

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 Respiratory Medicine CSAC. See the RCPCH website for the contact details of the current SPIN Lead:

www.rcpch.ac.uk/membership/committees/paediatric-respiratory-medicine-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	
<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"> • At least six months training post in a tertiary Paediatric respiratory centre. • At least six months training post in a general paediatric department in a large DGH where there is a designated consultant with expertise in the Paediatric Respiratory Medicine and which participates in shared care with the regional centre for cystic fibrosis and long-term ventilation.
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"> • Opportunities to lead clinical management and quality improvement with appropriate supervision.
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 spirometry and oximetry to develop these skills. • Opportunities to lead MDT meetings.

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"> • While training in DGH, the clinical supervisor is a consultant with expertise in Respiratory medicine During the training in regional centre clinical supervision is provided by a consultant in Paediatric Respiratory Medicine.
Quality assurance and improvement	
<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"> • The centres should participate in national audits, such as Asthma/LTV/CF registry. • Opportunity to lead on improvement projects/guidelines in Paediatric Respiratory medicine.

