

SPIN Module curriculum in

Sleep Medicine

SPIN Version 1.0

Approved for use from November 2022

This document outlines the curriculum and assessment strategy to be used by paediatricians completing the RCPCH SPIN module in Paediatric Sleep Medicine.

This is Version 1.0. 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

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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 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.

Paediatricians 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, recording evidence within the 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 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 competences, 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 Sleep Medicine, 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:

Paediatricians increasingly work as part of wider clinical networks. By supporting them 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.

Healthy sleep is fundamental for both physical and mental health. The NHS Long term plan highlighted the need to address children's mental health issues. Recent research has shown that children's mental health can be improved with key sleep interventions (www.england.nhs.uk/2019/04/nhs-sleep-clinic-programme-boosts-children-and-parents-mental-health/). In the UK, care of children with sleep disorders is currently concentrated around tertiary services that are able to undertake sleep studies. It is not uncommon for children to travel over 100 miles to access paediatric sleep services. The demand on tertiary paediatric sleep centres is growing dramatically each year. A UK report has shown that the number of referrals for sleep studies has increased 6 fold over the last 10 years (https://adc.bmj.com/content/104/Suppl_2/A202.2). The rising prevalence of childhood obesity and subsequent obstructive sleep apnoea is just one example of the growing pressures on paediatric sleep services.

Historically there has been very little training in paediatric sleep medicine. This has led to a lack of knowledge and confidence in managing paediatric sleep disorders. With appropriate training, clinicians in secondary care would be able to reduce the burden on tertiary services. This SPIN module aims to fill this gap by developing a network of paediatricians with expertise in sleep medicine across secondary and tertiary care.

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

This SPIN module has been proposed by the respiratory CSAC, and is supported by the neurology, neurodisability and general paediatric CSACs. Sleep services manage patients with both respiratory and non-respiratory sleep disorders. The non-respiratory sleep disorders include narcolepsy, parasomnias, movement disorders and behavioural insomnia. Behavioural insomnia is particularly prevalent in patients with neurodisability. Successful completion of this SPIN will require attending a variety of sub-specialty clinics such as ENT, respiratory, neurology, neurodisability and weight management clinics. This SPIN proposal is strongly supported by the British Paediatric Sleep Society, the British Sleep Society, the Down Syndrome Association and The Sleep Charity.

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 SPIN 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 Paediatric specialty training, the CCT holder will be competent to take up a post as a Consultant Paediatrician with a special interest in sleep medicine.

By the end of training, it is expected that clinicians who have completed this SPIN will have a sound understanding of the assessment, investigation and management of paediatric sleep disorders, including an understanding of when to refer to tertiary sleep centres.

The SPIN training will enable the clinician to develop and / or lead a paediatric sleep service within a secondary care setting. They will possess the skills required to identify and manage common sleep disorders and the knowledge required to recognise more rare or complex sleep disorders which require tertiary evaluation. The clinician will be able to liaise with tertiary sleep centres and provide shared care for children with chronic sleep conditions such as narcolepsy, as part of a managed clinical network. The clinician will be able to set up and / or lead a local sleep diagnostic service so that children and young people can have the simpler sleep investigations closer to where they live.

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.

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

- Undertake regular continuing professional development related to paediatric sleep medicine to retain the knowledge and skills gained whilst undertaking the SPIN module, including keeping up to date with advances in this area
- Participate in local paediatric sleep service development
- Participate in the activity of their regional paediatric sleep medicine network, where such a network exists.
- Become a member of the British Paediatric Sleep Society and attend the quarterly educational video conference.

Requirements to undertake this SPIN module

Applicant requirements

This SPIN module is available to Level 3 trainees and all post-CCT paediatricians with an interest in Epilepsy, who can 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 or Training Programme Directors 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. Further guidance for post-CCT applicants is available on the [RCPCH website](#).

Applicants with relevant recent experience may use some retrospective evidence towards their SPIN module in some cases. Please see the applicant guidance at www.rcpch.ac.uk/spin for more details on how to apply to undertake a SPIN module.

Training quality

SPIN training is indicative and based on acquisition of key capabilities. It would usually be possible to acquire key capabilities within 12 months for full time training, or pro-rata for Less Than Full Time (LTFT) training. It is expected that to achieve the necessary learning outcomes, a clinician will need to train in both inpatient and outpatient settings which might be in tertiary, secondary or community settings dependent on the level of expertise in these placements, alongside spending time in the sleep physiology lab. In order to achieve acquisition of key capabilities in particular training with a sleep physiology lab it is likely that PG-DIT will need to spend at least 6 months within a tertiary centre. Training will cover the following elements:

- Clinical experience assessing and managing children and young people presenting with respiratory sleep disorders, complex behavioural sleep disorders and neurological sleep disorders. This will primarily be achieved through seeing a combination of new and follow-up patients in an outpatient setting but will also involve some ward based experience in particular obtaining experience on ventilator technology.
- Clinical experience will also be gained from spending time with the sleep physiology department in order to learn about the technical aspects of sleep studies.

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/LETBs agree and approve the SPIN module programme. These exceptional circumstances include applications from trainees where approved training in a particular special interest is not available in their current deanery/LETB. Permitting OOP for these exceptional circumstances provides a positive contribution to workforce planning in regions where limited approved SPIN modules are available. For example, smaller sub-specialties such as Nephrology or Immunology & Infectious Diseases (IID) may only be available in a limited number of deaneries/

LETBs. In order for applications utilising OOP to be considered by the RCPCH, both deaneries/LETBs must agree and approve the SPIN module programme and provide clear justification as to why the module could not be completed in the trainee's current deanery/LETB. The current provision of Paediatric Sleep Medicine in the UK is patchy and OOP to train in a centre outside of the host Deanery/School is more likely than in other SPIN modules.

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 in place. Educational supervisors should have expertise in managing children across the breadth of sleep disorders. These supervisors may work in a different trust to the PG-DIC and there may be a requirement for the PG-DIC to transfer to a different deanery in order to receive appropriate training so that they may achieve acquisition of all key capabilities if it is not available locally. A list of educational supervisors for the SPIN module is provided on the spin webpage. Further guidance and resources are listed in appendix A and 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/Local Education Training Board (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), *a reference guide for postgraduate specialty training in the UK* (7th ed.).

#VoiceMatters

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

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

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. 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 you can't see or is hard for other people to understand. 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 how not sleeping can affect other parts of our life, or how having epilepsy and seizures through the night can make us really tired and not able to concentrate at school. Sometimes we need to talk about it to someone who isn't the doctor to get help understanding things.

"things that keep children and young people healthy, happy and well include having good sleep patterns and disconnecting from electronics before you go to bed" RCPCH &Us

We would like to have different tips that help us to be able to create a good sleep pattern, that are personal to us because we all have different family situations and not every tip will work for every child or young person. It would be good if people could talk to us about why it is good to do mindfulness activities and how it helps, or how switching off our phones before bed can help us to have better sleep, or else it can be hard to understand why it helps as it can just sound like something we are told to do.

"Being taught about sleep and mindfulness is important" RCPCH &Us

We would 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 is happening. It can be hard when one of the places looking after us doesn't have all the information, or doesn't believe when we tell them what is going on and why we might be struggling or behaving differently. It would help if we had a care plan that has all the up to date information and is easy to share between everyone.

"You can't sleep if you are worried and scared about stuff going on. RCPCH &Us

Sometimes there are things going on at home that might be making our health 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 where there is lots of noise that stops us from having a good sleep routine, or helping us to know what we can do to help. It would be great if you find out about your local area or national charities that help not just with medical conditions but with other parts of our lives like housing or money, 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.

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

Having problems with your health 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 other medical things going on. 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.

"Online appointments - the 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

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

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

Questions to think about:

1. How are you going to support children and young people to feel comfortable in opening up to you about their experiences? Are there tools and resources that could help?
2. Have you asked about other things in our house, where we live or at school that we might need help with that could be having an impact on our sleep?
3. What ways will you use to help everyone (patient/family/carer) talk with you on their own, in the way that is right for them?
4. What local and national charities or organisations do you know that you can signpost children, young people and families to that can support their health needs?
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 the RCPCH &Us network for sharing their ideas and views used in this section.

Ensuring fairness and supporting diversity

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

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

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

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

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

Please contact the RCPCH Quality and Standards team (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 several quality improvement tools and processes that impact on the overarching aspects of assessment. These will include:

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

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

SPIN governance

The RCPCH's 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 using the version tracking table at the front of each document what amendments have been made on each occasion. Where this amendment relates to a Key (mandatory) Capability, the 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.

Section 2

Sleep Medicine 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 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 excellent 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 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 trainees undertaking the RCPCH SPIN in Sleep Medicine. Within the curriculum and throughout the syllabi they are mapped to the GMC's Generic Professional Capabilities (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 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 can not be used to indicate competence in any other aspect of paediatrics.

SPIN Learning Outcome		GPCs
1	Demonstrates a comprehensive understanding of the physiology of sleep, the pathophysiology of sleep disorders and the importance of sleep promotion in the field of public health.	2, 3, 4, 5, 7, 8
2	Performs a full assessment of children and young people presenting with a wide range of sleep disorders and appropriately requests and interprets further investigations when indicated.	2, 3, 4, 5, 9
3	Formulates a diagnosis and appropriate management plan for a wide range of common sleep disorders, understanding when referral to tertiary sleep centres for more complex or rare disorders is indicated.	1, 2, 5, 6

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

SPIN Learning Outcome 1

Demonstrates a comprehensive understanding of the physiology of sleep, the pathophysiology of sleep disorders and the importance of sleep promotion in the field of public health.	GPC 2, 3, 4, 5, 7, 8
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Key Capabilities

Demonstrates a practical understanding of normal sleep physiology (including age dependent changes from the neonate to the adolescent), the consequences of abnormal sleep physiology and the evolution of sleep disorders.	GPC 2, 3
Demonstrates an understanding of the importance of behavioural, environmental, social and psychological factors on sleep disorders and their management.	GPC 2, 3, 4, 7
Engages in public health strategies to promote healthy sleep in children and young people.	GPC 4, 5, 7, 8

Illustrations

1. Teaches colleagues normal sleep physiology and how sleep physiology varies with age.
2. Assesses the behavioural, environmental, social and psychological factors for a child presenting with a sleep problem.
3. Describes the impact of poor sleep on physical health and mental wellbeing.
4. Teaches colleagues how to perform a brief assessment of sleep as part of routine history taking for all children and young people.
5. Explains changes in sleep to parents and children.

SPIN Learning Outcome 2

Performs a full assessment of children and young people presenting with a wide range of sleep disorders and appropriately requests and interprets further investigations when indicated.	GPC 2, 3, 4, 5, 9
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Key Capabilities

Able to perform a full assessment of a child or young person presenting with chronic insomnia, non-REM parasomnias, circadian rhythm disorders, sleep-related movement disorders, excessive daytime somnolence and sleep disordered breathing.	GPC 2
Demonstrates an understanding of the indications, limitations and technological aspects of pulse oximetry, transcutaneous/end tidal carbon dioxide, cardiorespiratory sleep studies and actigraphy.	GPC 2, 3, 9
Interprets sleep investigations, including recognising when to refer to other secondary care services or tertiary sleep services for further evaluation.	GPC 2, 5
Demonstrates an understanding of how to set up and lead an ambulatory service for actigraphy and pulse oximetry.	GPC 4, 5

Illustrations

1. Takes a comprehensive sleep history and appropriately examines a child presenting in outpatients with a primary sleep problem.
2. Describes the technological aspects of pulse oximetry, namely the impact of using different pulse oximeters, different averaging times and artefact identification.
3. Understands the limitations of pulse oximetry and criteria indicating that study quality is inadequate for informing management
4. Confidently interprets pulse oximetry sleep studies and provide a clinical management plan
5. Describes the age dependent normal values for pulse oximetry and transcutaneous CO2 monitoring.
6. Appropriately requests further investigations for a child or young person presenting with sleep disordered breathing.
7. Describes the practical considerations for setting up a service for home pulse oximetry, carbon dioxide monitoring and actigraphy..

SPIN Learning Outcome 3

Formulates a diagnosis and appropriate management plan for a wide range of common sleep disorders, understanding when referral to tertiary sleep centres for more complex or rare disorders is indicated.	GPC 1, 2, 5, 6
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Key Capabilities

Able to diagnose and manage common sleep disorders including chronic insomnia (behavioural and anxiety related sleep disorders), non-REM parasomnias, delayed sleep wake phase disorder and restless legs syndrome, whilst also recognising more rare or complex sleep disorders which require a shared model of care with tertiary centres.	GPC 1, 2
Recognises the presentation of epilepsy in sleep and is able to discern the differentiating features between seizures and parasomnias.	GPC 2
Appropriately manages children and young people with sleep disordered breathing, including infants presenting acutely with life threatening apnoeas. Able to determine which children can be managed by secondary care services and which children require onward referral to tertiary services. This includes understanding the symptoms of sleep disordered breathing which might indicate that a child would benefit from long term ventilation and hence the need for onward referral to a tertiary centre	GPC 2, 5
Recognises and manages children and young people with sleep disruption due to medical disorders and appropriately refers to other secondary care services when indicated.	GPC 2, 5, 6
Demonstrates an understanding of sleep pharmacology, including appropriate prescription of medication for sleep disorders and the inadvertent side effects of medications on sleep.	GPC 2, 6

Illustrations

1. Manages a child or young person presenting with sleep disturbance secondary to anxiety, providing advice on sleep interventions and liaising with CAMHs where appropriate.
2. Manages a child or young person with a behavioural sleep disorder in the context of a comorbid neurodevelopmental disorder.
3. Manages a child or young person presenting with frequent non-REM parasomnias and restless legs syndrome.
4. Recognises and appropriately refers a child or young person with suspected narcolepsy.
5. Recognises and appropriately refers a child or young person with advanced sleep wake disorder.
6. Appropriately refers a child or young person presenting with sleep disordered breathing and large tonsils to ENT.
7. Appropriately refers a child or young person with normal pulse oximetry and persistent symptoms of sleep disordered breathing to tertiary services for further evaluation.

8. Manages an overweight or obese child or young person with sleep disordered breathing with appropriate referral to a weight management service alongside referral to a tertiary sleep service for further evaluation.
9. Discusses the indications for starting melatonin with a child or young person with autistic spectrum disorder.
10. Investigates and manages a child presenting acutely with life threatening apnoeas.

Section 3

Assessment Strategy

How to assess the Sleep 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. There are no proposed mandatory assessments.

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

Assessment blueprint

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

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

Key Capabilities	Assessment / Supervised Learning Event suggestions									
	Paediatric Mini Clinical Evaluation (ePaed Mini-CEX)	Paediatric Case-based Discussion (ePaeds 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
Demonstrates an understanding of the indications, limitations and technological aspects of pulse oximetry, transcutaneous/end tidal carbon dioxide, cardiorespiratory sleep studies and actigraphy.	✓	✓	✓		✓	✓		✓		
Interprets sleep investigations, including recognising when to refer to other secondary care services or tertiary sleep services for further evaluation.	✓		✓		✓			✓		
Demonstrates an understanding of how to set up and lead an ambulatory service for actigraphy and pulse oximetry.			✓		✓			✓		
Able to diagnose and manage common sleep disorders including chronic insomnia (behavioural and anxiety related sleep disorders), non-REM parasomnias, delayed sleep wake phase disorder and restless legs syndrome, whilst also recognising more rare or complex sleep disorders which require a shared model of care with tertiary centres.	✓	✓			✓		✓	✓	✓	
Recognises the presentation of epilepsy in sleep and is able to discern the differentiating features between seizures and parasomnias.	✓	✓		✓	✓		✓			
Appropriately manages children and young people with sleep disordered breathing, including infants presenting acutely with life threatening apnoeas. Able to determine which children can be managed by secondary care services and which children require onward referral to tertiary services. This includes understanding the symptoms of sleep disordered breathing which might indicate that a child would benefit from long term ventilation and hence the need for onward referral to a tertiary centre.	✓	✓		✓	✓		✓	✓	✓	
Recognises and manages children and young people with sleep disruption due to medical disorders and appropriately refers to other secondary care services when indicated.	✓	✓			✓					
Demonstrates an understanding of sleep pharmacology, including appropriate prescription of medication for sleep disorders and the inadvertent side effects of medications on sleep.		✓			✓					

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

A clinical guide to paediatric sleep; diagnosis and management of sleep problems. By Jodi Mindell and Judith Owens.

Training events or courses

- Southampton Sleep Training Modular Course (Southampton Children's Sleep Disorder Service) <https://www.piernetwork.org/sleep-disorders-in-clinical-practice.html> Paediatric Sleep Pulse Oximetry Study Half Day (Southampton Children's Hospital) <https://www.piernetwork.org/oximetry.html>
- Sleep training courses run by charities that are accredited by RCPCH for CPD (Charities that may provide appropriate courses include The Sleep Charity, Cerebra and Hope2Sleep)
- British Sleep Society conference
- National courses on long term ventilation for example GOSH long term ventilation course

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 Respiratory CSAC. See the RCPCH website for the contact details of the current SPIN Lead: <https://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 trainee. Adherence to these criteria will help ensure the trainee will have the necessary support and access to experiences which they will require 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> <p>Clinical experience assessing and managing children and young people presenting with respiratory sleep disorders, complex behavioural sleep disorders and neurological sleep disorders. This will primarily be achieved through seeing a combination of new and follow-up patients in an outpatient setting.</p>
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> <p>Opportunities to lead clinical management with appropriate supervision</p>
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 sleep physiologists in order to learn how to set up and interpret sleep studies (this may involve night shifts) • To gain expertise in simple investigations • To develop an understanding of what is involved for more complex investigations such as MSLTs and ventilation titration studies.

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"> • Access to consultants with expertise in respiratory and neurobehavioural sleep disorders that can provide educational supervision. This may involve a range of consultants.
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> <ol style="list-style-type: none"> 1. Opportunity for participation in audit and clinical improvement projects 2. Opportunity for presentation of abstracts at relevant national meetings 3. Opportunity for presentation of clinical cases at the BPSS videoconference meetings 4. Opportunity for participation in research.

