Advanced Training Curricula Renewal

DRAFT Curriculum standards

Advanced Training in Sleep Medicine

(Paediatrics & Child Health)

November 2023



About this document

This document outlines the curriculum standards for Advanced Training in Sleep Medicine (Paediatrics & Child Health) for trainees and supervisors.

The curriculum standards should be used in conjunction with the Advanced Training in Sleep Medicine (Paediatrics & Child Health) learning, teaching, and assessment programs.

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Program overview

Purpose of Advanced Training

The RACP offers Advanced Training in 33 diverse medical specialties as part of Division, Chapter, or Faculty training programs.

The purpose of Advanced Training is to develop a workforce of physicians who:

- have received breadth and depth of focused specialist training, and experience with a wide variety of health problems and contexts
- are prepared for and committed to independent expert practice, lifelong learning, and continuous improvement
- provide safe, quality health care that meets the needs of the communities of Australia and New Zealand.



Specialty overview

Sleep Medicine includes both the study of the physiological principles that underpin sleep and management of disorders of sleep. Sleep Medicine is a non-organ based, crossdisciplinary specialty. It is characterised by a substantial and rapidly expanding scientific knowledge base. The maintenance of health across the ages is critically dependant on obtaining adequate sleep. Acute and chronic sleep deprivation is associated with a range of adverse neurobehavioral, endocrine, and cardiovascular outcomes. The socioeconomic costs of sleep disorders are often underestimated.

Sleep Medicine specialists address the health care needs of the community by:

- Promotion of safe, healthy sleep and sleep-optimisation practices for children and young people.
- Providing information for industry, educational authorities, and governmental regulatory authorities on the impact of sleep disorders on academic achievement, workplace and road safety, which affects both children and carers.

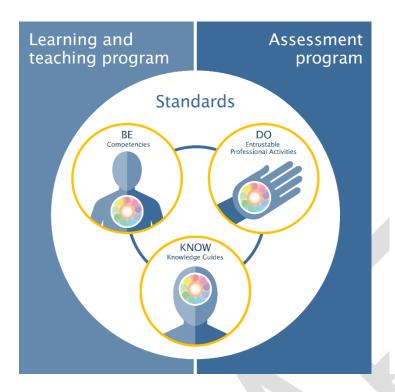
Sleep Medicine specialists possess special clinical skills such as:

- Recognising how sleep affects health and daily functioning. Sleep is a key component of normal and neurocognitive development in infants, children, and adolescents. It plays an important role by impacting other systems during pivotal stages of development throughout childhood. Sleep deprivation is endemic in western societies; health implications include mood disturbance, negative neurocognitive correlates, accidents/injury, increased insulin resistance, and other neuroendocrine disturbance.
- **Diagnosing, investigating, and managing individuals with sleep disorders.** The International Classification of Sleep Disorders (ICSD-3-TR) includes seven major categories of sleep disorders. Patients with sleep disorders undergo special assessment, which includes a combination of clinical evaluation and sleep monitoring and subsequent application of treatment modalities using various interventions, including medications, medical devices, surgical procedures, education, and behavioural techniques. Sleep disorders are can also form a part of other system disorders or genetic/developmental syndromes; assessment, investigation and treatment of these conditions will also include management of sleep disorders in these children.
- **Providing longitudinal care.** Sleep disorders occur in a variety of patients, from children to the elderly. Effective treatments are available for most sleep disorders, but they rely on the accurate identification of the disorder and health professionals who are skilled in their application. Thus, sleep medicine physicians play a central role in delivery of health care to patients of all ages with primary and secondary sleep disorders.

Sleep Medicine specialists have specific professional skills including:

- **Applying a multidisciplinary approach.** Sleep medicine specialists work collaboratively with other health professionals that are part of the sleep medicine team, as well other disciplines both in primary and tertiary health settings.
- Working sensitively with a variety of patients. Sleep medicine specialists develop an ability to deal with children suffering with sleep disorders, and their parents, in a professional and empathetic manner.
- **Strong communication skills.** Sleep medicine specialists must develop an empathetic interviewing technique and an ability to relate to patients from all walks of life. It is also essential that they appreciate when referral to a more appropriate or more qualified practitioner in a particular subspecialty is necessary.
- Managing resources for the benefit of patients and communities. Sleep medicine specialists apply a biopsychosocial approach to ensure the delivery of efficient, cost-effective, and safe care for the benefit of their patients and communities.
- **Applying a scholarly approach.** Sleep medicine specialists conduct academic research to discover better ways of understanding, diagnosing, treating, and preventing disease. They apply research to improve the management of patients.

Advanced Training curricula standards



The **RACP curriculum model** is made up of curricula standards

supported by learning, teaching, and assessment programs.

Learning and teaching programs

outline the strategies and methods to learn and teach curricula standards, including required and recommended learning activities.

Assessment programs outline the planned use of assessment methods to provide an overall picture of the trainee's competence over time.

The **curricula standards** outline the educational objectives of the training program and the standard against which trainees' abilities are measured.

Competencies outline the expected professional behaviours, values and practices of trainees in 10 domains of professional practice.



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Entrustable Professional Activities (EPAs) outline the essential work tasks trainees need to be able to perform in the workplace.



Knowledge guides outline the expected baseline knowledge of trainees.

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Common curricula standards

The renewed curricula for Advanced Training will consist of a mix of program-specific content and content that is common across Advanced Training programs.

- Competencies will be common across Advanced Training programs.
- Entrustable Professional Activities (EPAs) will contain a mix of content that is common and content that is program-specific.
- Knowledge Guides will be program-specific, although content may be shared between complementary programs.

Professional Practice Framework

The Professional Practice Framework describes ten domains of practice for all physicians.



Learning, teaching, and assessment structure

The learning, teaching, and assessment structure defines the framework for delivery



Advanced Training learning, teaching, and assessment structure

- An entry decision is made before entry into the program.
- **Progress decisions**, based on competence, are made at the end of the specialty foundation and specialty consolidation phases of training.
- A **completion decision**, based on competence, is made at the end of the training program, resulting in eligibility for admission to Fellowship.

Advanced Training is a **hybrid time- and competency-based training program**. There is a minimum time requirement of between three to five years' full-time equivalent experience, depending on the training program undertaken. Progress and completion decisions are based on evidence of trainees' competence.

The Advanced Training program may be started once the prospective trainee has completed the entry requirements. This includes completion of Basic Physician Training required for Divisional Advanced Training programs.

Curriculum standards

Competencies

Competencies outline the expected professional behaviours, values and practices that trainees need to achieve by the end of training.

Competencies are grouped by the 10 domains of the professional practice framework.

Competencies will be common across training programs.



Medical expertise

Professional standard: Physicians apply knowledge and skills informed by best available current evidence in the delivery of high-quality, safe practice to facilitate agreed health outcomes for individual patients and populations.

Knowledge: Apply knowledge of the scientific basis of health and disease to the diagnosis and management of patients.

Synthesis: Gather relevant data via age- and context- appropriate means to develop reasonable differential diagnoses, recognising and considering interactions and impacts of comorbidities.

Diagnosis and management: Develop diagnostic and management plans that integrate an understanding of individual patient circumstances, including psychosocial factors and specific vulnerabilities, epidemiology, and population health factors in partnership with patients, families, or carers¹, and in collaboration with the health care team.

¹ References to patients in the remainder of this document may include their families and/or carers.

Communication



Professional standard: Physicians collate information, and share this information clearly, accurately, respectfully, responsibly, empathetically, and in a manner that is understandable.

Physicians share information responsibly with patients, families, carers, colleagues, community groups, the public, and other stakeholders to facilitate optimal health outcomes.

Effective communication: Use a range of effective and appropriate verbal, nonverbal, written and other communication techniques, including active listening.

Communication with patients, families, and carers: Use collaborative, effective, and empathetic communication with patients, families, and carers.

Communication with professionals and professional bodies: Use collaborative, respectful, and empathetic clinical communication with colleagues, other health professionals, professional bodies, and agencies.

Written communication: Document and share information about patients to optimise patient care and safety.

Privacy and confidentiality: Maintain appropriate privacy and confidentiality, and share information responsibly.



Quality and safety

Professional standard: Physicians practice in a safe, high-quality manner within the limits of their expertise.

Physicians regularly review and evaluate their own practice alongside peers and best practice standards and conduct continuous improvement activities.

Patient safety: Demonstrate a safety focus and continuous improvement approach to own practice and health systems.

Harm prevention and management: Identify and report risks, adverse events, and errors to improve healthcare systems.

Quality improvement: Participate in quality improvement activities to improve quality of care and safety of the work environment.

Patient engagement: Enable patients to contribute to the safety of their care.



Teaching and learning

Professional standard: Physicians demonstrate a lifelong commitment to excellence in practice through continuous learning ² and evaluating evidence.

Physicians foster the learning of others in their profession through a commitment to mentoring, supervising, and teaching.

Lifelong learning: Undertake effective self-education and continuing professional development.

Self-evaluation: Evaluate and reflect on gaps in own knowledge and skills to inform self-directed learning.

Supervision: Provide supervision for junior colleagues and/or team members.

Teaching: Apply appropriate educational techniques to facilitate the learning of colleagues and other health professionals.

Patient education: Apply appropriate educational techniques to promote understanding of health and disease amongst patients and populations.

Research

Professional standard: Physicians support creation, dissemination and translation of knowledge and practices applicable to health³ They do this by engaging with and critically appraising research, and applying it in policy and practice to improve the health outcomes of patients and populations.

Evidence-based practice: Critically analyse relevant literature and refer to evidence-based clinical guidelines and apply these in daily practice.

Research: Apply research methodology to add to the body of medical knowledge and improve practice and health outcomes.

² Adapted from Richardson D, Oswald A, Chan M-K, Lang ES, Harvey BJ. Scholar. In: Frank JR, Snell L, Sherbino J, editors. The Draft CanMEDS 2015 Physician Competency Framework – Series IV. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2015 March

Cultural safety

Professional standard. Physicians engage in iterative and critical self-reflection of their own cultural identity, power, biases, prejudices, and practising behaviours. Together with the requirement of understanding the cultural rights of the community they serve, this brings awareness and accountability for the impact of the physician's own culture on decision making and health care delivery. It also allows for an adaptive practice where power is shared between patients, family, whānau, and/or community and the physician, to improve health outcomes.



Physicians recognise the patient and population's rights for culturally safe care, including being an ally for patient, family, whānau, and/or community autonomy and agency over their decision making. This shift in the physician's perspective fosters collaborative and engaged therapeutic relationships, allows for strength-based (or mana-enhanced) decisions, and sharing of power with the recipient of the care, optimising health care outcomes.

Physicians critically analyse their environment to understand how colonialism, systemic racism, social determinants of health, and other sources of inequity have and continue to underpin the healthcare context. Consequently, physicians then can recognise their interfacing with, and contribution to, the environment in which they work to advocate for safe, more equitable and decolonised services, and create an inclusive and safe workplace for all colleagues and team members of all cultural backgrounds³.

This is a placeholder for the competencies in the cultural safety domain, which are in development and will be added at a later date.

³ The RACP has adopted the Medical Council of New Zealand's definition of cultural safety (below): Cultural safety can be defined as:

[•] the need for doctors to examine themselves and the potential impact of their own culture on clinical interactions and healthcare service delivery

by individual doctors to acknowledge and address any of their own biases, attitudes, assumptions, stereotypes, prejudices, structures, and characteristics that may affect the quality of care provided

the awareness that cultural safety encompasses a critical consciousness where health professionals and health care organisations engage in ongoing self-reflection and self-awareness, and hold themselves accountable for providing culturally safe care, as defined by the patient and their communities.

Curtis et al. "Why cultural safety rather than cultural competency is required to achieve health equity". International Journal for Equity in Health (2019) 18:174

Ethics and professional behaviour



Professional standard: Physicians' practice is founded upon ethics, and physicians always treat patients and their families in a caring and respectful manner.

Physicians demonstrate their commitment and accountability to the health and wellbeing of individual patients, communities, populations, and society through ethical practice.

Physicians demonstrate high standards of personal behaviour.

Beliefs and attitudes: Reflect critically on personal beliefs and attitudes, including how these may impact on patient care.

Honesty and openness: Act honestly, including reporting accurately, and acknowledging their own errors.

Patient welfare: Prioritise patients' welfare and community benefit above self-interest.

Accountability: Be personally and socially accountable.

Personal limits: Practise within their own limits and according to ethical principles and professional guidelines.

Self-care: Implement strategies to maintain personal health and wellbeing.

Respect for peers: Recognise and respect the personal and professional integrity, roles, and contribution of peers.

Interaction with professionals: Interact equitably, collaboratively, and respectfully with other health professionals.

Respect and sensitivity: Respect patients, maintain appropriate relationships, and behave equitably.

Privacy and confidentiality: Protect and uphold patients' rights to privacy and confidentiality.

Compassion and empathy: Demonstrate a caring attitude towards patients and endeavour to understand patients' values and beliefs.

Health needs: Understand and address patients', families', carers', and colleagues' physical and emotional health needs.

Medical and health ethics and law: Practise according to current community and professional ethical standards and legal requirements.

Judgement and decision making



Professional standard: Physicians collect and interpret information, and evaluate and synthesise evidence, to make the best possible decisions in their practice.

Physicians negotiate, implement, and review their decisions and recommendations with patients, their families and carers, and other health professionals.

Diagnostic reasoning: Apply sound diagnostic reasoning to clinical problems to make logical and safe clinical decisions.

Resource allocation: Apply judicious and cost-effective use of health resources to their practice.

Task delegation: Apply good judgement and decision making to the delegation of tasks.

Limits of practice: Recognise their own scope of practice and consult others when required.

Shared decision-making: Contribute effectively to team-based decision-making processes.

Leadership, management, and teamwork



Professional standard: Physicians recognise, respect, and aim to develop the skills of others, and engage collaboratively to achieve optimal outcomes for patients and populations.

Physicians contribute to and make decisions about policy, protocols, and resource allocation at personal, professional, organisational, and societal levels.

Physicians work effectively in diverse multidisciplinary teams and promote a safe, productive, and respectful work environment that is free from discrimination, bullying, and harassment.

Managing others: Lead teams, including setting directions, resolving conflicts, and managing individuals.

Wellbeing: Consider and work to ensure the health and safety of colleagues and other health professionals.

Leadership: Act as a role model and leader in professional practice.

Teamwork: Negotiate responsibilities within the healthcare team and function as an effective team member.



Health policy, systems, and advocacy

Professional standard: Physicians apply their knowledge of the nature and attributes of local, national, and global health systems to their own practices. They identify, evaluate, and influence health determinants through local, national, and international policy.

Physicians deliver and advocate for the best health outcomes for all patients and populations.

Health needs: Respond to the health needs of the local community and the broader health needs of the people of Australia and New Zealand.

Prevention and promotion: Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients and their social support networks.

Equity and access: Work with patients and social support networks to address determinants of health that affect them and their access to needed health services or resources.

Stakeholder engagement: Involve communities and patient groups in decisions that affect them to identify priority problems and solutions.

Advocacy: Advocate for prevention, promotion, equity, and access to support patient and population health needs within and outside the clinical environment.

Resource allocation: Understand the factors influencing resource allocation, promote efficiencies, and advocate to reduce inequities.

Sustainability. Manage the use of healthcare resources responsibly in everyday practice.

Entrustable Professional Activities



Entrustable Professional Activities (EPAs) outline the essential work tasks trainees need to be able to perform in the workplace.

#	Theme	Title		
1	Team leadership	Lead a team of health professionals		
2	Supervision and teaching	Supervise and teach professional colleagues		
3	<u>Quality</u> improvement	Identify and address failures in health care delivery		
4	Clinical assessment and management			
5	Management of transitions in careManage transition of patient care between health professional providers, and contexts			
6	Longitudinal care	Description of the second seco		
7	Communication with patientsDiscuss diagnoses and management plans with patients			
8	Prescribing Prescribe therapies tailored to patients' needs and conditions			
9	Investigations	nvestigations Select, organise, and interpret investigations		
10	Clinic management and procedures			

EPA 1: Team leadership

Theme	Team leadership	AT-EPA-01		
Title	Lead a team of health professionals			
Description	 ption This activity requires the ability to: prioritise workload manage multiple concurrent tasks articulate individual responsibilities, expertise, and accountability team members understand the range of team members' skills, expertise, and rol acquire and apply leadership techniques in daily practice collaborate with and motivate team members encourage and adopt insights from team members act as a role model. 			
Behaviours				
<u>Professional</u> <u>practice</u> <u>framework</u> domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity		
	The trainee will:	The trainee may:		
Medical expertise	 synthesise information with other disciplines to develop optimal, goal-centred plans for patients use evidence-based care to meet the needs of patients or populations assess and effectively manage clinical risk in various scenarios demonstrate clinical competence and skills by effectively supporting team members 	 demonstrate adequate knowledge of healthcare issues by interpreting complex information assess the spectrum of problems to be addressed apply medical knowledge to assess the impact and clinical outcomes of management decisions provide coordinated and quality health care for populations or patients as a member of a multidisciplinary team 		
Communication	 provide support and motivate patients or populations and health professionals by effective communication demonstrate a transparent, consultative style by engaging patients, families, carers, relevant professionals and/or the public in shared decision making work with patients, families, carers, and other health professionals to resolve conflict that may arise when planning and aligning goals demonstrate rapport with people at all levels by tailoring messages to different stakeholders 	 communicate adequately with colleagues communicate adequately with patients, families, carers, and/or the public respect the roles of team members 		

Quality and safety	 identify opportunities to improve care by participating in surveillance and monitoring of adverse events and 'near misses' identify activities within systems to reduce errors, improve patient and population safety, and implement cost-effective change place safety and quality of care first in all decision making 	 participate in audits and other activities that affect the quality and safety of patients' care participate in interdisciplinary collaboration to provide effective health services and operational change use information resources and electronic medical record technology where available
Teaching and learning	 regularly self-evaluate personal professional practice, and implement changes based on the results actively seek feedback from supervisors and colleagues on their own performance identify personal gaps in skills and knowledge, and engage in self-directed learning maintain current knowledge of new technologies, health care priorities and changes of patients' expectations teach competently by imparting professional knowledge manage and monitor learner progress, providing regular assessment and feedback 	 accept feedback constructively, and change behaviour in response recognise the limits of personal expertise, and involve other health professionals as needed demonstrate basic skills in facilitating colleagues' learning
Cultural safety	 demonstrate culturally competent relationships with professional colleagues and patients demonstrate respect for diversity and difference take steps to minimise unconscious bias, including the impact of gender, religion, cultural beliefs and socioeconomic background on decision making 	 demonstrate awareness of cultural diversity and unconscious bias work effectively and respectfully with people from different cultural backgrounds
Ethics and professional behaviour	 promote a team culture of shared accountability for decisions and outcomes encourage open discussion of ethical and clinical concerns respect differences of multidisciplinary team members understand the ethics of resource allocation by aligning optimal patients and organisational care 	 support ethical principles in clinical decision making maintain standards of medical practice by recognising the health interests of patients or populations as primary responsibilities respect the roles and expertise of other health professionals work effectively as a member of a team

	 act collaboratively to resolve behavioural incidents and conflicts such as harassment and bullying 	
Judgement and decision making	 evaluate health services and clarify expectations to support systematic, transparent decision making make decisions when faced with multiple and conflicting perspectives ensure medical input to organisational decision making adopt a systematic approach to analysing information from a variety of specialties to make decisions that benefit health care delivery 	 monitor services and provide appropriate advice review new healthcare interventions and resources interpret appropriate data and evidence for decision making
Leadership,	 combine team members' skills and expertise in delivering patient care and/or population advice develop and lead effective multidisciplinary teams by developing and implementing 	 understand the range of personal and other team members' skills, expertise, and roles acknowledge and respect the contribution of all health professionals involved in
management, and teamwork	 strategies to motivate others build effective relationships with multidisciplinary team members to achieve optimal outcomes 	 patients' care participate effectively and appropriately in multidisciplinary teams
	• ensure all members of the team are accountable for their individual practice	 seek out and respect the perspectives of multidisciplinary team members when making decisions
	 engage in appropriate consultation with stakeholders on the delivery of healthcare 	 understand methods used to allocate resources to provide high-quality care
	 advocate for the resources and support for healthcare teams to achieve organisational priorities 	 lead the development and use of organisational policies and procedures
Health policy, systems, and advocacy	 influence the development of organisational policies and procedures to optimise health outcomes 	
	• identify the determinants of health of the population, and mitigate barriers to access to care	
	 remove self-interest from solutions to health advocacy issues 	

EPA 2: Supervision and teaching

Theme	Supervision and teaching	AT-EPA-02		
Title	Supervise and teach professional colleagues			
Description	 This activity requires the ability to: provide work-based teaching in a vale teach professional skills create a safe and supportive learnin plan, deliver, and provide work-base encourage learners to be self-directed supervise learners in day-to-day wo support learners to prepare for asse 	g environment ed assessments ed and identify learning experiences rk, and provide feedback		
Behaviours				
Professional practice framework domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity		
	The trainee will:	The trainee may:		
Medical expertise	 combine high-quality care with high-quality teaching explain the rationale underpinning a structured approach to decision making consider the patient-centric view during consultations consider the population health effect when giving advice encourage the learner to consider the rationale and appropriateness of investigation and management options 	teach learners using basic knowledge and skills		
Communication	 establish rapport and demonstrate respect for junior colleagues, medical students, and other health professionals communicate effectively when teaching, assessing, and appraising learners actively encourage a collaborative and safe learning environment with learners and other health professionals encourage learners to tailor communication as appropriate for different patients, such as younger or older people, and different populations support learners to deliver clear, concise and relevant information in both verbal and written communication 	 demonstrate accessible, supportive, and compassionate behaviour 		

	 listen and convey information clearly and considerately
	 support learners to deliver quality care while maintaining their own wellbeing observe learners to reduce risks and improve health outcomes
Quality	 apply lessons learned about patient safety by identifying and discussing risks with learners
and safety	 assess learners' competence, and provide timely feedback to minimise risks to care
	 maintain the safety of patients and organisations involved with education, and appropriately identify and action concerns
	 demonstrate knowledge of the principles, processes, and skills of supervision demonstrate basic skills in the supervision of learners apply a standardised approach to
	 provide direct guidance to learners in day-to-day work provide direct guidance to learners provide direct guidance to learners teaching, assessment, and feedback to without considering
	 work with learners to identify professional development and learning opportunities based on their individual learning needs individual learner needs implement teaching and learning activities that are misaligned to learning goals
	offer feedback and role modelling
	 participate in teaching and supervision professional development activities
Teaching	encourage self-directed learning and assessment
and learning	 develop a consistent and fair approach to assessing learners
	 tailor feedback and assessments to learners' goals
	 seek feedback and reflect on own teaching by developing goals and strategies to improve
	 establish and maintain effective mentoring through open dialogue
	 support learners to identify and attend formal and informal learning opportunities
	 recognise the limits of personal expertise, and involve others appropriately
Research	 clarify junior colleagues' research project goals and requirements, and provide feedback regarding the merits or challenges of proposed research monitor the progress of learners' research projects regularly, and may review research projects prior

	 support learners to find forums to present research projects 	
	 encourage and guide learners to seek out relevant research to support practice 	
	 role model a culturally appropriate approach to teaching 	 function effectively and respectfully when working with and teaching
	 encourage learners to seek out opportunities to develop and improve their own cultural competence 	with people from different cultural backgrounds
Cultural safety	 encourage learners to consider culturally appropriate care of Māori and Aboriginal and Torres Strait Islander peoples into patients' management 	
	 consider cultural, ethical, and religious values and beliefs in teaching and learning 	
	apply principles of ethical practice to teaching scenarios	 demonstrate professional values, including commitment to
Ethics and professional behaviour	 act as a role model to promote professional responsibility and ethics among learners 	 high-quality clinical standards, compassion, empathy, and respect provide learners with feedback
	 respond appropriately to learners seeking professional guidance 	to improve their experiences
	 prioritise workloads and manage learners with different levels of professional knowledge or experience 	 provide general advice and support to learners use health data logically and effectively to investigate difficult
	 link theory and practice when explaining professional decisions 	diagnostic problems
	promote joint problem solving	
Judgement and decision making	 support a learning environment that allows for independent decision making 	
	 use sound and evidence-based judgement during assessments and when giving feedback to learners 	
	escalate concerns about learners appropriately	
	 maintain personal and learners' effective performance and continuing professional development 	 demonstrate the principles and practice of professionalism and leadership in health care participate in montor programs
Leadership, management, and teamwork	 maintain professional, clinical, 	 participate in mentor programs, career advice, and general
	 research, and/or administrative responsibilities while teaching create an inclusive environment whereby the learner feels part of the team 	counselling
	 help shape organisational culture to prioritise quality and work safety through openness, honesty, 	

		shared learning, and continued improvement		
Health policy,	٠	advocate for suitable resources to provide quality supervision and maintain training standards	•	incompletely integrate public health principals into teaching and practice
systems, and advocacy	٠	explain the value of health data in the care of patients or populations		
	٠	support innovation in teaching and training		

EPA 3: Quality improvement

Theme	Quality improvement	AT-EPA-03		
Title	Identify and address failures in health care delivery			
Description	 This activity requires the ability to: identify and report actual and potential conduct and evaluate system improve adhere to best practice guidelines audit clinical guidelines and outcome contribute to the development of policipatients and enhance healthcare monitor one's own practice and development 	ement activities s cies and protocols designed to protect		
Behaviours				
<u>Professional</u> <u>practice</u> <u>framework</u> domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:		
Medical expertise	 regularly review patients' or population health outcomes to identify opportunities for improvement in delivering appropriate care evaluate environmental and lifestyle health risks, and advocate for healthy lifestyle choices use standardised protocols to adhere to best practice and prevent the occurrence of wrong-site, wrong-patient procedures regularly monitor personal professional performance 	 contribute to processes on identified opportunities for improvement use local guidelines to assist patient care decision making 		
Communication	 support patients to have access to, and use, easy-to-understand, high-quality information about health care support patients to share decision making about their own health care, to the extent they choose assist patients' access to their health information, as well as complaint and feedback systems discuss with patients any safety and quality concerns they have relating to their care implement the organisation's open disclosure policy 	 demonstrate awareness of the evidence for consumer engagement and its contribution to quality improvement in healthcare apply knowledge of how health literacy might affect the way patients or populations gain access to, understand, and use health information 		
Quality and safety	 demonstrate safety skills, including infection control, adverse event reporting, and effective clinical handover 	 demonstrate understanding of a systematic approach to improving the quality and safety of healthcare 		

	 participate in organisational quality and safety activities, including morbidity and mortality reviews, clinical incident reviews, root cause analyses, and corrective action preventative action plans participate in systems for surveillance and monitoring of adverse events and 'near misses', including reporting such events use clinical audits and registries of data on patients' experiences and outcomes, learnings from 	
	 incidents, and complaints to improve healthcare translate quality improvement approaches and methods into practice 	 work within organisational quality and safety systems for the delivery of clinical care
Teaching and learning	 participate in professional training in quality and safety to ensure a contemporary approach to safety system strategies 	 use opportunities to learn about safety and quality theory and systems
	 supervise and manage the performance of junior colleagues in the delivery of high-quality, safe care 	
Research	• ensure that any protocol for human research is approved by a human research ethics committee, in accordance with the national statement on ethical conduct in human research	• understand that patient participation in research is voluntary and based on an appropriate understanding about the purpose, methods, demands, risks, and potential benefits of the research
Cultural safety	 undertake professional development opportunities that address the impact of cultural bias on health outcomes 	 communicate effectively with patients from culturally and linguistically diverse backgrounds
Ethics and professional behaviour	 contribute to developing an organisational culture that enables and prioritises patients' safety and quality 	 comply with professional regulatory requirements and codes of conduct
Judgement and decision making	 use decision-making support tools, such as guidelines, protocols, pathways, and reminders analyse and evaluate current care processes to improve healthcare 	 access information and advice from other health practitioners to identify, evaluate, and improve patients' care management
Leadership, management, and teamwork	 support multidisciplinary team activities to lower patients' risk of harm, and promote interdisciplinary programs of education actively involve clinical pharmacists in the medication-use process 	 demonstrate attitudes of respect and cooperation among members of different professional teams partner with clinicians and managers to ensure patients receive appropriate care and information on their care

	•	support the development, implementation, evaluation, and monitoring of governance	٠	maintain a dia managers abo patient care	
			processes	٠	contribute to rorganisational
		a so pro clin y, of c	measure, analyse, and report a set of specialty-specific		procedures
Health policy, systems, and advocacy			process of care and outcome clinical indicators, and a set of generic safety indicators	٠	help shape an culture that pr quality through
	•	take part in the design and implementation of the organisational systems for:		learning, and	
		cli » pe			
			 » performance monitoring and management 		
			» clinical, and safety and quality education and training		

- alogue with service out issues that affect
- relevant al policies and
- n organisational prioritises safety and gh openness, honesty, quality improvement

Theme	Clinical assessment and managemen	t AT-EPA-04
Title	Clinically assess and manage the ong	going care of patients
Description	 This activity requires the ability to: identify and access sources of relev obtain patient histories examine patients synthesise findings to develop provided discuss findings with patients, familiant generate a management plan present findings to other health profestional provided discuss for the second discuss discuss for the second discuss for the second discuss for the second discuss for the second discuss d	sional and differential diagnoses es and/or carers
Behaviours		
<u>Professional</u> <u>practice</u> <u>framework</u> domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	 elicit an accurate, organised, and problem-focused medical history considering physical, psychosocial, and risk factors elicit a comprehensive sleep specific history consistent with the appropriate neuro-maturational stage of the child perform a full physical examination to establish the nature and extent of problems demonstrate expertise in assessing sleep presentations both respiratory & non-respiratory, taking into consideration the developmental status of the child synthesise and interpret findings from the history and examination to devise the most likely provisional diagnoses via reasonable differential diagnoses assess the severity of problems, the likelihood of complications, and clinical outcomes organise investigations appropriate for the child's clinical presentation and demonstrate understanding of the different investigative modalities develop management plans based on relevant guidelines, and consider the balance of benefit 	 take patient-centred histories, considering psychosocial factors perform accurate physical examinations recognise and correctly interpret abnormal findings synthesise pertinent information to direct the clinical encounter and diagnostic categories develop appropriate management plans

EPA 4: Clinical assessment and management

into account

and harm by taking patients' personal set of circumstances

	 develop skills for continuing management of children needing ongoing care and demonstrate ability to adapt the management plan with child's development. understand co-morbidities that are contributing to the presentation and tailor the assessment and management plan accordingly develop management plan for children needing ongoing care/treatment with technology CPAP/NIV and demonstrate understanding of natural history of conditions
Communication	 communicate openly, listen, and take patients' concerns seriously, giving them adequate opportunity to ask questions provide information to patients and their family or carers to enable them to make a fully informed decision from various diagnostic, therapeutic, and management options communicate clearly, effectively, respectfully, and promptly with other health professionals involved anticipate, read, and respond to verbal and non-verbal cues demonstrate active listening skills communicate patients' situations to colleagues, including senior clinicians
	 in patients' care demonstrate effective communication with the family that is child-centric, taking into consideration unique developmental scenarios
Quality and safety	 demonstrate safety skills, including infection control, adverse event reporting and effective clinical handover recognise and effectively deal with aggressive and violent patient behaviours through appropriate training obtain informed consent before undertaking any investigation or providing treatment (except in an emergency) ensure patients are informed of the material risks associated with any part of proposed management plans perform hand hygiene, and take infection control precautions at appropriate moments take precaution against assaults from confused or agitated patients, ensuring appropriate care of patients document history and physical examination findings, and synthesise with clarity and completeness
Teaching and learning	 set defined objectives for clinical teaching encounters, and solicit feedback on mutually agreed goals regularly reflect upon and self-evaluate professional development set unclear goals and objectives for self-learning set unclear goals and objectives for self-learning self-reflect infrequently deliver teaching considering learners' level of training

	ir	btain informed consent before hvolving patients in teaching activities		
	0	urn clinical activities into an opportunity to teach, appropriate o the setting		
	ir	earch for, find, compile, analyse, hterpret, and evaluate information elevant to the research subject	٠	refer to guidelines and medical literature to assist in clinical assessments when required
Research			٠	demonstrate an understanding of the limitations of evidence and the challenges of applying research in daily practice
	e d	ise plain-language patient education materials, and lemonstrate cultural and	•	display respect for patients' cultures, and attentiveness to social determinants of health
	• d c	nguistical sensitivity lemonstrate effective and sulturally competent communication and care for Māori	•	display an understanding of at least the most prevalent cultures in society, and an appreciation of their sensitivities
Cultural safety	a Is	and Aboriginal and Torres Strait slander peoples, and members of ther cultural groups	•	appropriately access interpretive or culturally focused services
	h o ir a li	use a professional interpreter, nealth advocate, or a family or community member to assist in communication with patients, and understand the potential mitations of each acknowledge		
	a	atients' beliefs and values, and how these night impact on health		
	ir re	lemonstrate professional values, ncluding compassion, empathy, espect for diversity, integrity, ionesty, and partnership to	•	demonstrate professional conduct, honesty, and integrity consider patients' decision-making capacity
Ethics and professional behaviour	• h ir	Il patients hold information about patients in confidence, unless the release of information is required by law	٠	identify patients' preferences regarding management and the role of families in decision making
	o • a d	or public interest issess patients' capacity for lecision making, involving a proxy	٠	not advance personal interest or professional agendas at the expense of patient or social welfare
	• a to n	lecision maker appropriately apply knowledge and experience to identify patients' problems, making logical, rational decisions, and acting to achieve positive	•	demonstrate clinical reasoning by gathering focused information relevant to patients' care
Judgement and decision making	o ● to u	o consider comorbidity, Incertainty and risk when making Inical decisions	٠	recognise personal limitations and seek help in an appropriate way when required
	• C S	consider the psychosocial and cocio-cultural context of the patient and family in decision making		

	 use the best available evidence for the most effective therapies and interventions to ensure quality care 	
Leadership, management, and teamwork	 work effectively as a member of multidisciplinary teams to achieve the best health outcome for patients present and discuss complicated cases within a multidisciplinary team (MDT) to help direct clinical management demonstrate awareness of colleagues in difficulty, and work within the appropriate structural systems to support them while maintaining patient safety 	 share relevant information with members of the health care team
Health policy, systems, and advocacy	 participate in health promotion, disease prevention and control, screening, and reporting notifiable diseases aim to achieve the optimal cost-effective patient care to allow maximum benefit from the available resources advocate for policies that would enhance sleep health through childhood and adolescence 	 identify and navigate components of the healthcare system relevant to patients' care identify and access relevant community resources to support patient care

EPA 5: Management of transitions in care

Theme	Management of transitions in care	AT-EPA-05
Title	Manage the transition of patient care b providers, and contexts	between health professionals,
Description	 This activity requires the ability to: manage a transition of patient care to of care between providers identify the appropriate health care p with whom to share patient informatio exchange pertinent, contextually app information perform this activity in multiple setting including inpatient, ambulatory, and or recognise clinical deterioration and refor escalation of care. 	providers and other stakeholders on propriate, and relevant patient gs (appropriate to the speciality),
Professional practice <u>framework</u> domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	 assist patients from early adolescence to prepare for transfer to adult care at an appropriate age facilitate an optimal transition of care for patients identify and manage key risks for patients during transition anticipate possible changes in patients' conditions, and provide recommendations on how to manage them 	 understand the details of patients' conditions, illness severity, and potential emerging issues with appropriate actions provide accurate summaries of patients' information with accurate identification of problems or issues recognise seriously unwell patients requiring immediate care
Communication	 write relevant and detailed medical record entries, including clinical assessments and management plans write comprehensive and accurate summaries of care, including discharge summaries, clinic letters, and transfer documentation initiate and maintain verbal communication with other health professionals, when required communicate with patients, families and/or carers about transition of care, and engage and support these parties in decision making 	 communicate clearly with clinicians and other caregivers use standardised verbal and written templates to improve the reliability of information transfer and prevent errors and omissions communicate accurately and in a timely manner to ensure an effective transition between settings, and continuity and quality of care determine the patients' understanding of their diseases and what they perceive as the most desirable goals of care

	 identify patients at risk of a poor transition of care, and mitigate this risk 	 ensure that handover is complete, or work to mitigate risks if the handover was incomplete
	 use electronic tools (where available) to securely store and transfer patient information 	 ensure all outstanding results or procedures are followed up by receiving units and clinicians
Quality and safety	 use consent processes, including written consent if required, for the release and exchange of information 	 keep patients' information secure, adhering to relevant legislation regarding personal information and privacy
	 demonstrate understanding the medicolegal context of written communications 	 raise appropriate issues for review at morbidity and mortality meetings
	 maintain up-to-date certification in advanced life support 	
	 integrate clinical education in handover sessions and other transition of care meetings 	• take opportunities to teach junior colleagues during handover, as necessary
Teaching	• tailor clinical education to the level of the professional parties involved	
and learning	 educate adolescents and young adults about their conditions and 	
	 their impacts on their lives consider the involvement of parents/carers in the education process 	
	 communicate with careful consideration to health literacy, language barriers, and culture about patient preferences, and whether they are realistic and possible, respecting patient choices 	 include relevant information regarding patients' cultural or ethnic background in handovers, and whether an interpreter is required
Cultural safety	 recognise the timing, location, privacy, and appropriateness of sharing information with patients and their families or carers 	
	 negotiate health care decisions in a culturally appropriate way by considering variation in family structures, cultures, religion, or belief systems 	
Ethics and professional behaviour	 disclose and share only contextually appropriate medical and personal information 	 maintain respect for patients, families, carers, and other health professionals, including respecting
	 demonstrate understanding of the clinical, ethical, and legal rationale for information disclosure 	privacy and confidentiality
	 share information about patients' health care in a manner consistent with privacy law and professional guidelines on confidentiality 	
	 demonstrate understanding of the additional complexity related to some types of information, such as genetic information and blood-borne-virus status, and 	

	seek appropriate advice about disclosure of such information	
	 interact in a collegiate and collaborative way with colleagues 	
Judgement and	 ensure patients' care is in the most appropriate facility, setting, or provider 	 use a structured approach to consider and prioritise patients' issues
decision making	 recognise the need for escalation of care, and escalate to appropriate staff or services 	 recognise personal limitations and seek help in an appropriate way when required
	 share the workload of transitions of care appropriately, including delegation demonstrate understanding of the medical governance of patient 	 recognise factors that impact on the transfer of care, and help subsequent health professionals to understand the issues to continue care
	care, and the differing roles of team members	• work to overcome the potential barriers to continuity of care,
Leadership, management, and teamwork	 show respect for the roles and expertise of other health professionals, and work effectively as a member of professional teams 	appreciating the role of handover in overcoming these barriers
	 recognise and work collaboratively with other health care providers, including allied health workers and psychologists 	
	 contribute to processes for managing risks, and identify strategies for improvement in transition of care 	 factor transport issues and costs to patients into arrangements for transferring patients to other settings
Health policy, systems, and advocacy	 engage in organisational processes to improve transitions of care, such as formal surveys or follow-up phone calls after hospital discharge 	 understand the systems for the escalation of care for deteriorating patients
	 connect patients with local or online peer support groups 	

EPA 6: Longitudinal care

Theme	Longitudinal care	AT-EPA-07
Title	Manage and coordinate the longitudin illness, disability, and/or long-term he	
Description	This activity requires the ability to:	
	 develop management plans and goa carers, and/or families 	Is in consultation with patients
	 manage chronic and advanced cond and comorbidities 	itions, complications, disabilities,
	collaborate with other health care pro	oviders
	 ensure continuity of care 	
	 facilitate patient and/or families/carel and self-monitoring 	rs self-management
	• engage with the broader health polic	y context.
Behaviours		
<u>Professional</u> <u>practice</u> <u>framework</u> domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity
	The trainee will:	The trainee may:
	 regularly assess and review care plans for patients with chronic conditions and disabilities based on short- and long-term clinical and quality of life goals 	 assess patients' knowledge, beliefs, concerns, and daily behaviours related to their chronic condition and/or disability and its management
	 provide documentation on patients' presentation, management, and progress, including key points of diagnosis and decision making to inform coordination of care 	 contribute to medical record entries on the history, examination, and management plan in a way that is accurate and sufficient as a member of multidisciplinary
	 ensure patients and carers/families contribute to their needs assessments and care planning 	teams
Medical expertise	 develop skills for continuing management of children needing ongoing care and demonstrate ability to adapt the management plan with child's development 	
	 understand co-morbidities that are contributing to the presentation and tailor the assessment and management plan accordingly. 	
	 develop management plan for children needing ongoing care/treatment with technology CPAP/NIV and demonstrate understanding of natural history of conditions 	
	 monitor treatment outcomes, effectiveness, and adverse events 	

Communication	 encourage patients' self-management through education to take greater responsibility for their care, where appropriate, and support problem solving provide graded autonomy for older children/adolescents in participating in their care encourage patients' access to self-monitoring devices and assistive technologies communicate with multidisciplinary team members, and involve patients in that dialogue 	 provide healthy lifestyle advice and information to patients on the importance of self-management work in partnership with patients, and motivate them to comply with agreed care plans
	 use innovative models of chronic disease care using telehealth and digitally integrated support services review medicine use and ensure 	 participate in continuous quality improvement processes and clinical audits on chronic disease management identify activities that may improve
Quality and safety	 patients understand safe medication administration to prevent errors support patients' self-management 	patients' quality of life
	by balancing between minimising risk and helping patients to become more independent	
	 participate in quality improvement processes impacting on patients' abilities to undertake normal activities of daily living 	
Teaching	 contribute to the development of clinical pathways for chronic diseases management based on current clinical guidelines 	 use clinical practice guidelines for chronic diseases management
and learning	 educate patients to recognise and monitor their symptoms, and undertake strategies to assist their recovery 	
Research	 prepare reviews of literature on patients' encounters to present at journal club meetings 	 search literature using Problem/Intervention/Comparison/ Outcome (PICO) format
	 search for and critically appraise evidence to resolve clinical areas of uncertainty 	 recognise appropriate use of review articles
Cultural safety	 encourage patients and parents/caregivers from culturally and linguistically diverse backgrounds to join local networks to receive the support needed for long-term self-management 	 provide culturally safe chronic disease management
Ethics and professional behaviour	 share information about patients' health care, consistent with privacy laws and confidentiality and professional guidelines 	 share information between relevant service providers acknowledge and respect the contribution of health professionals involved in patients' care

	 use consent processes for the release and exchange of health information 	
	 assess patients' decision-making capacity, and appropriately identify and use alternative decision makers 	
Judgement and	 implement stepped care pathways in the management of chronic diseases and disabilities 	 recognise personal limitations and seek help in an appropriate way when required
decision making	 recognise patients' needs in terms of both internal resources and external support on a long-term health care journey 	
	 coordinate whole-person care through involvement in all stages of the patients' care journey 	 participate in multidisciplinary care for patients with chronic diseases and disabilities, including
Leadership, management, and teamwork	 use a multidisciplinary approach across services to manage patients with chronic diseases and disabilities 	organisational and community care on a continuing basis, appropriate to patients' context
	 develop collaborative relationships with patients, families, carers, and a range of health professionals 	
Health policy, systems, and advocacy	 use health screening for early intervention and chronic diseases management assess alternative models of healthcare delivery to patients with chronic diseases and disabilities participate in government initiatives for chronic diseases management to reduce hospital admissions and improve patients' quality of life help patients access initiatives 	 demonstrate awareness of government initiatives and service available for patients with chronic diseases and disabilities, and display knowledge of how to access them
	and services for patients with	

EPA 7: Communication with patients

Theme	Communication with patients	AT-EPA-08
Title	Discuss diagnoses and management	plans with patients
Description	 This activity requires the ability to: select a suitable context and include team members adopt a patient-centred perspective and disabilities select and use appropriate modalitie structure conversations intentionally negotiate a mutually agreed manag verify patient, family or carer unders develop and implement a plan for each and select and se	e family and/or carers and other , including adjusting for cognition es and communication strategies / ement plan standing of information conveyed
	ensure the conversation is document	nted.
Behaviours		
<u>Professional</u> <u>practice</u> <u>framework</u> domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity
	The trainee will:	The trainee may:
Medical expertise	 anticipate and be able to correct any misunderstandings patients and their carers may have about their conditions and/or risk factors inform patients and carers of all aspects of their clinical management, including assessments and investigations, and give them adequate opportunity to question or refuse interventions and treatments seek to understand the concerns and goals of patients and their carers, and plan management in partnership with them provide information to patients and their carers to enable them to make informed decisions about diagnostic, therapeutic, and management options recognise when to refer patients to psychological support services 	 apply knowledge of the scientific basis of health and disease to the management of patients demonstrate an understanding of the clinical problem being discussed formulate management plans in partnership with patients
Communication	 use an appropriate communication strategy and modalities for communication, such as emails, face-to-face, or phone calls elicit patients' and carers' views, concerns, and preferences, promoting rapport provide information to patients and their carers 	 select appropriate modes of communication engage patients in discussions, avoiding the use of jargon check patients' understanding of information adapt communication style in response to patients' age,

	in plain language, avoiding jargon, acronyms, and complex medical terms	developmental level, and cognitive, physical, cultural, socioeconomic, and situational factors
	 encourage questions, and answer them thoroughly 	 collaborate with patient liaison officers as required
	 ask patients and their carers to share their thoughts or explain their management plan in their own words, to verify understanding convey information considerately 	
	and sensitively to patients and their carers, seeking clarification if unsure of how best to proceed	
	 convey information in an age- appropriate manner (including illustrations and videos etc.) 	
	 treat children and young people respectfully, and listen to their views 	
	 provide graded autonomy for children/adolescents to participate in their care 	
	 recognise the role of family or carers and, when appropriate, encourage patients to involve their family or carers in decisions about their care 	
	 empower the adolescent or young adult to be responsible for their own compliance with treatment and timely medical reviews, self- care and independence 	
	 discuss with patients and their carers their condition and the available management options, 	 inform patients of the material risks associated with the proposed management plan
	including potential benefits and harms	 treat information about patients as confidential
	 provide information to patients in a way they can understand before asking for their consent 	
Quality and safety	 consider young people's capacity for decision making and informed consent, taking into consideration their age and maturation 	
	 recognise and take precautions where patients may be vulnerable, such as issues of child protection or self-harm 	
	 participate in processes to manage patient complaints 	
Teaching	 discuss the aetiology of diseases and explain the purpose, nature, and extent of the assessments to be conducted 	 respond appropriately to information sourced by patients, and to patients knowledge regarding their condition
and learning		

Research	 provide information to patients that is based on guidelines issued by the National Health and Medical Research Council and/or Health Research Council of NZ provide information to patients in a way they can understand before asking for their consent to participate in research obtain an informed consent or other valid authority before involving patients in research 	 refer to evidence-based clinical guidelines demonstrate an understanding of the limitations of the evidence and the challenges of applying research in daily practice
	 demonstrate effective and culturally competent communication with Māori and Aboriginal and Torres Strait Islander peoples effectively communicate with 	 identify when to use interpreters allow enough time for communication across linguistic and cultural barriers
Cultural safety	members of other cultural groups by meeting patients' specific language, cultural, and communication needs	
	 use qualified language interpreters or cultural interpreters to help meet patients' communication needs 	
	 provide plain language and culturally appropriate written materials to patients when possible 	
	 encourage and support patients and their carers to be well informed about their health, and to use this information wisely when they make decisions 	 respect the preferences of patients communicate appropriately, consistent with the context, and respect patients' needs and preferences
	• encourage and support patients and, when relevant, their families or carers, in caring for themselves	 maximise patient autonomy, and support their decision making
	 and managing their health demonstrate respectful professional relationships 	 avoid sexual, intimate, and/or financial relationships with patients demonstrate a caring attitude
Ethics and professional behaviour	 with patients and their carers prioritise honesty, patients' welfare, and community benefit above self-interest 	 towards patients respect patients, including protecting their rights to privacy and confidentiality
	 develop a high standard of personal conduct, consistent with professional and community expectations support patients' rights to seek second opinions 	 behave equitably towards all, irrespective of gender, age, culture, socioeconomic status, sexual preferences, beliefs, contribution to society, illness-related behaviours or the illness itself
	····	 use social media ethically and according to legal obligations to protect patients' confidentiality and privacy
Leadership,	role model excellent	answer questions from team

	 communicate effectively with team members involved in patients' care, and with patients, families and carers discuss medical assessments, treatment plans, and investigations with patients and primary care teams, working collaboratively with all discuss patient care needs with
	healthcare team members to align them with the appropriate resources
	 facilitate an environment where all team members feel they can contribute and their opinion is valued
	 communicate accurately and succinctly, and motivate others on the healthcare team
Health policy, systems, and advocacy	 collaborate with other services, such as community health centres and consumer organisations, to help patients navigate the healthcare system communicate with and involve other health professionals as appropriate

EPA 8: Prescribing

Theme	Prescribing	AT-EPA-09	
Title	Prescribe therapies tailored to patients' needs and conditions		
Description	 taking into consideration age, comorrisks, and benefits communicate with patients and familiand risks of proposed therapies provide instructions on medication a monitor medicines for efficacy and s 	arpret medication histories opriate medicines based on an understanding of pharmacology, onsideration age, comorbidities, potential drug interactions, nefits a with patients and families or carers about the benefits proposed therapies uctions on medication administration effects and side effects icines for efficacy and safety sines and interactions, and cease where appropriate with pharmacists.	
Professional practice framework domain	Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	Possible behaviours of a trainee who needs some supervision to perform this activity	
Medical expertise	 identify the patients' disorders requiring pharmacotherapy consider non-pharmacologic therapies consider age, chronic disease status, lifestyle factors, allergies, potential drug interactions, and patient preference prior to prescribing a new medication plan for follow-up and monitoring demonstrate awareness of different formulations of common medications, and consider appropriate formulation (including most appropriate routes of administration) and/or strength recognise the impacts of age and metabolism on the absorption, distribution, and excretion of medicines 	 The trainee may: be aware of potential side-effects and practical prescription points, such as medication compatibility and monitoring in response to therapies select medicines for common conditions appropriately, safely, and accurately demonstrate understanding of the rationale, risks, benefits, side effects, contraindications, dosage, and drug interactions identify and manage adverse events 	
Communication	 discuss and evaluate the risks, benefits, and rationale of treatment options, making decisions in partnership with patients and their parents/caregivers write clear and legible prescriptions in plain language, and include specific indications for the anticipated duration of therapy educate patients and their parents/caregivers about the 	 discuss and explain the rationale for treatment options with patients, families or carers explain the benefits and burdens of therapies, considering patients' individual circumstances write clearly legible scripts or charts using generic names of the required medication in full, 	

	intended use, expected outcomes and potential side effects for each prescribed medication, addressin the common, rare, and serious effects at the time of prescribing to improve patients' adherence to pharmacotherapy	and all legally required information
	 describe how the medication should and should not be administered, including any important relationships to food, time of day, and other medicines being taken 	
	 ensure patients' understanding by repeating back pertinent information, such as when to return for monitoring and whether therapy continues after this single prescription 	
	 identify patients' concerns and expectations, and explain how medicines might affect their everyday lives 	
	 review medicines regularly to reduce non-adherence, and monitor treatment effectiveness, possible side effects, and drug interactions, ceasing unnecessar medicines 	 check the dose before prescribing monitor side effects of medicines prescribed identify medication errors and institute appropriate measures
	 use electronic prescribing tools where available, and access electronic drug references to prevent errors caused by drug interactions and poor handwriting 	 use electronic prescribing systems safely rationalise medicines to avoid polypharmacy
Quality and safety	 prescribe new medicines only when they have been demonstrated to be safer or more effective at improving patient-oriented outcomes than existing medicines 	
	• participate in clinical audits to improve prescribing behaviour, including an approach to polypharmacy and prescribing cascade	
	 report suspected adverse events to the Advisory Committee on Medicines, and record it in patients' medical records 	
	 use continuously updated software for computers and electronic prescribing programs 	development to maintain currency with prescribing guidelines
Teaching and learning	 ensure patients understand management plans, including adherence issues 	 reflect on prescribing, and seek feedback from a supervisor
	 use appropriate guidelines and evidence-based medicine resources to maintain a working 	

	knowledge of current medicines, keeping up to date on new medicines	
Research	 critically appraise research material to ensure any new medicine improves patient-oriented outcomes more than older medicines, and not just more than placebo 	 make therapeutic decisions according to the best evidence recognise where evidence is limited, compromised, or subject to bias or conflict of interest
	 use sources of independent information about medicines that provide accurate summaries of the available evidence on new medicines 	
	• explore patients' and their parents/caregivers understanding of, and preferences for, non-pharmacological and pharmacological management	 appreciate patients' cultural and religious backgrounds, attitudes, and beliefs, and how these might influence the acceptability of pharmacological
Cultural safety	 offer patients and their parents/caregivers effective choices based on their expectations of treatment, health beliefs, and cost 	and non-pharmacological management approaches
	 interpret and explain information to patients at the appropriate level of their health literacy 	
	 anticipate queries to help enhance the likelihood of medicines being taken as advised 	
	 ensure appropriate information is available at all steps of the medicine management pathway 	
Ethics and professional behaviour	 provide information to patients about: what the medicine is for what it does potential side effects how to take it when it should be stopped make prescribing decisions based on good safety data when the benefits outweigh the risks involved demonstrate understanding of the ethical implications of pharmaceutical industry-funded 	 consider the efficacy of medicines in treating illnesses, including the relative merits of different non-pharmacological and pharmacological approaches follow regulatory and legal requirements and limitations regarding prescribing follow organisational policies regarding pharmaceutical representative visits and drug marketing
	 use a systematic approach to select treatment options 	 recognise personal limitations and seek help in an appropriate way
Judgement and decision making	 use medicines safely and effectively to get the best possible results 	 when required consider the following factors for all medicines: x contraindications
	 choose suitable medicines only if medicines are considered necessary and will benefit patients 	 contraindications cost to patients, families, and the community

	 prescribe medicines appropriately to patients' clinical needs, in doses that meet their individual requirements, for a sufficient length of time, with the lowest cost to them funding and regulatory considerations generic versus brand medicines interactions risk-benefit analysis
	 evaluate new medicines in relation to their possible efficacy and safety profile for individual patients
Leadership, management, and teamwork	 interact with medical, pharmacy, and nursing staff to ensure safe and effective medicine use work collaboratively in a multidisciplined team for non-pharmacologic treatments for sleep disorders work collaboratively and mortality meetings
Health policy, systems, and advocacy	 choose medicines in relation to comparative efficacy, safety, and cost-effectiveness against medicines already on the market prescribe in accordance with the organisational policy
	 prescribe for individual patients, considering history, current medicines, allergies, and preferences, ensuring that healthcare resources are used wisely for the benefit of patients

EPA 9: Investigations

Theme	Investigations	AT-EPA-11	
Title	Select, organise, and interpret investigations		
Description	 This activity requires the ability to: select, plan, and use evidence-base prioritise patients receiving investiga evaluate the anticipated value of the work in partnership with patients and choices that are right for them provide aftercare for patients (if nee interpret the results and outcomes of communicate the outcome of invest 	e investigation d their families or carers to facilitate ded) of investigations	
Behaviours			
<u>Professional</u> <u>practice</u> <u>framework</u> Domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity	
	The trainee will:	The trainee may:	
Medical expertise	 choose evidence-based investigations and frame them as an adjunct to comprehensive clinical assessments assess patients' concerns, and determine the need for specific tests that are likely to result in overall benefit develop plans for investigations, identifying their roles and timing recognise and correctly interpret abnormal findings, considering patients' specific circumstances, and act accordingly demonstrate understanding of the channels in a PSG and be able to set up a child for PSG score PSG for children of all ages and be able to score sleep stages, respiratory events, and other signals as per the current international/national guidelines develop and demonstrate expertise in conducting titration sleep studies in children needing CPAP or bilevel support, and understand the longitudinal needs in relation to respiratory support perform and interpret Multiple Sleep Latency Test (MSLT) and understand the clinical indication for this test. understand the role of abbreviated 	 provide rationale for investigations understand the significance of abnormal test results and act on these consider patient factors and comorbidities consider age-specific reference ranges 	

	 Level 4 studies and be able to demonstrate the role of such investigations in clinical practice demonstrate understanding of other sleep medicine tools such as actigraphy, sleep diary and paediatric sleep related questionnaires and assessment tools 	
Communication	 explain to patients the potential benefits, risks, costs, burdens, and side effects of each option, including the option to have no investigations use clear and simple language, and check that patients understand the terms used and agree to proceed with proposed investigations identify patients and parent/caregiver concerns and expectations, providing adequate explanations on the rationale for individual test ordering confirm whether patients have understood the information they have been given and the need for more information before deciding use written or visual material or 	 discuss the indications, risks, benefits, and complications of investigations with patients before ordering investigations explain the results of investigations to patients arrange investigations, providing accurate and informative referrals, and liaise with other services where appropriate
	 other aids that are accurate and up to date to support discussions with patients establish rapport with the child and family and explain the nature and length of the tests to be conducted 	
	 explain findings or possible outcomes of investigations to patients, families and carers give information that patients may find distressing in a considerate way 	
Quality and safety	 identify adverse outcomes that may result from a proposed investigation, focusing on patients' individual situations ensure quality control of the investigations performed are up to current standards 	 consider safety aspects of investigations when planning them seek help with interpretation of test results for less common tests or indications or unexpected results
Teaching and learning	 use appropriate guidelines, evidence sources, and decision support tools participate in clinical audits to improve test ordering strategies for diagnoses and screening 	 undertake professional development to maintain currency with investigation guidelines
Research	 provide patients with relevant information if a proposed 	 refer to evidence-based clinical guidelines

	 investigation is part of a research program obtain written consent from patients and their parents/caregivers, where applicable, if the investigation is part of a research program 	 consult current research on investigations
Cultural safety	 understand patients' and their families' views and preferences about any proposed investigation and the adverse outcomes they are most concerned about 	 consider patients' cultural and religious backgrounds, attitudes, and beliefs, and how these might influence the acceptability of proposed investigations
	 remain within the scope of the authority given by patients and their parents/caregivers (except for emergencies) 	 identify appropriate proxy decision makers when required choose not to investigate in situations where it is not
	 discuss with patients and their parents/caregivers how decisions will be made once the investigation has started, and the patient is not able to participate in decision making 	 appropriate for ethical reasons practise within current ethical
Ethics and professional	 respect patients' decisions to refuse investigations, even if their decisions may not be appropriate or evidence based 	 involve patients in decision making regarding investigations, obtaining the appropriate informed consent, including financial consent, if
behaviour	 advise patients and parents/caregivers there may be additional costs, which they may wish to clarify before proceeding 	necessary
	• explain the expected benefits as well as the potential burdens and risks of any proposed investigation before obtaining informed consent or other valid authority	
	• demonstrate awareness of complex issues related to genetic information obtained from investigations, and subsequent disclosure of such information	
	• evaluate the costs, benefits, and potential risks of each investigation in a clinical situation	 choose the most appropriate investigation for the clinical scenario in discussion with patients
Judgement and decision making	 adjust the investigative path depending on test results received consider whether patients' conditions may get worse or better if no tests are selected 	 recognise personal limitations and seek help in an appropriate way when required
Leadership, management,	• consider the role other members of the healthcare team might play, and what other sources of information and support are available	 demonstrate understanding of what parts of an investigation are provided by different doctors or health professionals
and teamwork	 ensure results are checked in a timely manner, taking responsibility for following up results 	

Health policy, systems, and	٠	select and justify investigations regarding the pathological basis of disease, appropriateness, utility, safety, and cost effectiveness
advocacy	•	consider resource utilisation through peer review of testing behaviours

EPA	10:	Clinic	management and	d procedures
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Theme	Clinic management	AT-EPA-12
Title	Manage an outpatient clinic and plan aftercare for important practical proc	
Description	 This activity requires the ability to: manage medical procedures and tree ensure appropriate procedures are a their families or carers obtain informed consent manage clinic services oversee quality improvement activitie communicate with patients, their familiaise with other health professionals demonstrate problem-solving skills responsibly use public resources. 	selected in partnership with patients, ies nilies and/or carers
Behaviours		
<u>Professional</u> <u>practice</u> <u>framework</u> domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	 effectively identify and address current clinical concerns, as well as longer-term clinical objectives, as appropriate to patients' context evaluate environmental and lifestyle health risks, and advocate for healthy lifestyle choices create an accurate and appropriately prioritised problem list in the clinical notes or as part of an ambulatory care review update documentation in a time frame appropriate to the clinical situation of patients select procedures by assessing patient-specific factors, risks, benefits, and alternatives confidently and consistently perform a range of common procedures perform inpatient consultation of sleep problems in children who have complex syndrome or multisystem involvement and devise a management plan 	 demonstrate understanding of the importance of prevention, early detection, health maintenance, and chronic condition management assess patients and identify indications for procedures perform a range of common procedures check for allergies and adverse reactions consider risks and complications of procedures
Communication	 help patients and their families navigate the healthcare system to improve access to care by collaboration with other services, 	 wherever practical, meet patients' specific language and communication needs

	 such as community health centres and consumer organisations link patients and their parents/caregivers to specific community-based health programs and group education programs accurately document procedures in clinical notes, including informed consent, procedures requested and performed, reasons for procedures, medicines given, aseptic technique, and aftercare explain procedures clearly to patients, families or carers, including reasons for procedures, potential alternatives, and possible risks, to facilitate informed choices 	facilitate appropriate use of interpreter services and translated materials
Quality and safety	 practice health care that maximises patient safety adopt a systematic approach to the review and improvement 	 take reasonable steps to address issues if patients' safety may be compromised understand a systematic approach to improving the quality and safety
	 of professional practice in the outpatient clinic setting identify aspects of service provision that may be a risk to patients' safety 	 participate in organisational quality and safety activities, including clinical incident reviews
Teaching and learning	 evaluate their own professional practice demonstrate learning behaviour and skills in educating junior colleagues contribute to the generation of knowledge maintain professional continuing education standards refer to and/or be familiar with relevant published procedural 	 recognise the limits of personal expertise, and involve other professionals as needed to contribute to patients' care use information technology appropriately as a resource for modern medical practice participate in continued professional development
	 guidelines prior to undertaking procedures organise or participate in in-service training on new technology 	
Research	 obtain informed consent or other valid authority before involving patients in research inform patients and their parents/caregivers about their rights, the purpose of the research, the procedures to be undergone, and the potential risks and benefits of participation before obtaining 	 allow patients to make informed and voluntary decisions to participate in research
Cultural safety	 apply knowledge of the cultural needs of the community serving, and how to shape service to those people 	 acknowledge the social, economic, cultural, and behavioural factors influencing health, both at individual and population levels

	 mitigate the influence of own culture and beliefs on interactions with patients and decision making adapt practice to improve patient and agreement and health outcomes 	
Ethics and professional behaviour	 engagement and health outcomes identify and respect the boundaries that define professional and therapeutic relationships respect the roles and expertise of other health professionals comply with the legal requirements of preparing and managing documentation demonstrate awareness of financial and other conflicts of interest understand institution/department protocols and ethical practices and guidelines around performing procedures if required to perform procedures, do so in accordance with institution/department protocols and ethical practices and guidelines 	 understand the responsibility to protect and advance the health and wellbeing of individuals and communities maintain the confidentiality of documentation, and store clinical notes appropriately ensure that the use of social media is consistent with ethical and legal obligations
Judgement and decision making	 integrate prevention, early detection, health maintenance, and chronic condition management, where relevant, into clinical practice work to achieve optimal and cost-effective patient care that allows maximum benefit from the available resources understand institution/department protocols and ethical practices and guidelines around performing procedures identify roles and optimal timings for diagnostic procedures critically appraise information from assessments and evaluations of risks and benefits to prioritise patients on a waiting list 	 understand the appropriate use of human resources, diagnostic interventions, therapeutic modalities, and health care facilities prioritise which patients receive procedures first (if there is a waiting list) assess personal skill level, and seek help with procedures when appropriate use tools and guidelines to support decision making
Leadership, management, and teamwork	 prepare for and conduct clinical encounters in a well-organised and time-efficient manner work effectively as a member of multidisciplinary teams or other professional groups ensure that all important discussions with colleagues, multidisciplinary team members, and patients are appropriately documented 	 attend relevant clinical meetings regularly ensure all relevant team members are aware that a procedure is occurring

	 review discharge summaries, notes, and other communications written by colleagues support colleagues who raise concerns about patients' safety explain critical steps, anticipated events, and equipment requirements to teams on planned procedures provide staff with clear aftercare instructions, and explain how to recognise possible complications
Health policy, systems, and advocacy	 demonstrate capacity to engage in the surveillance and monitoring of the health status of populations in the outpatient setting understand common population health screening and prevention approaches
	 maintain good relationships with health agencies and services
	 apply the principles of efficient and equitable allocation of resources to meet individual, community, and national health needs

Knowledge guides

Knowledge guides provide detailed guidance to trainees on the important topics and concepts trainees need to understand to become experts in their chosen specialty.

Trainees are not expected to be experts in all areas or have experience related to all items in these guides.







Knowledge guide 1 – Scientific foundations of sleep medicine (including investigations and measurements)

Advanced Training in Sleep Medicine (Paediatrics & Child Health)

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Advanced Trainees will have in-depth knowledge of the topics listed under each clinical sciences heading.

For the statistical and epidemiological concepts listed, trainees should be able to describe the underlying rationale, the indications for using one test or method over another, and the calculations required to generate descriptive statistics.

Pathophysiology of normal and abnormal sleep

- Anatomy and physiology of upper airway
 - > changes of the above with age and maturity
 - » concept of the pharyngeal airway is a collapsible tube
 - dynamic behaviour of the pharynx during breathing, when awake and asleep, and the concept of critical pressure
 - » effects of craniofacial structure, obesity, upper airway muscle function, and ventilatory control on upper airway patency
 - » effects of nasal resistance on pharyngeal collapsibility.
 - » role of upper airway muscles in the control of breathing when asleep and awake
 - » structure and functions of the upper airway
- Physiology of sleep and breathing
 - » control of breathing during sleep:
 - effect of sleep on respiratory neurons
 - neuroanatomical and neurophysiologic basis of control of breathing
 - central and peripheral chemoreceptors, and hypoxic and hypercapnic ventilatory responses
 - peripheral and central afferents and inputs
 - central pattern generator as the basis for respiratory control
 - normal expected changes with age and development (including the effects of prematurity on these systems)
 - explain the mechanics of breathing in a child/adolescent
 - » breathing changes during sleep, REM vs. NREM sleep
 - » effect of sleep on breathing in respiratory and neuromuscular diseases
 - effect of sleep on other systems including cardiovascular, gastrointestinal and neurological disease (e.g. decreased seizure threshold in NREM sleep in some epilepsy syndromes)
- <u>Sleep and circadian neurophysiology</u>
 - anatomy and physiology of the circadian system
 circadian, ultradian, and homeostatic processes that underpin sleep.
 - » circulating hormones and inflammatory cytokines impact on sleepwake patterns
 - » cultural, social, and physical environmental factors impact on sleep
 - » distinctions between REM and NREM
 - » effects of sleep deprivation in terms of health and daytime functioning
 - » impact of circadian and homeostatic systems on sleep-wake cycles and propensity to daytime sleepiness
 - » influence of NREM and REM sleep and sleep arousal on respiratory, cardiovascular, endocrine, and gastrointestinal physiology and the neurohormonal and circadian factors that might

underpin these effects on different biological systems. An example of this might be the understanding of why asthma is worse in sleep.

- » influence of NREM and REM sleep and sleep arousal on the autonomic nervous system
- » interactions between sleep and wakefulness and the sensory nervous system, perception and cognition, the cardiovascular system, temperature regulation, and the endocrine system
- » molecular and neural basis of the circadian system
- » neuroanatomical and neurophysiological basis for arousal from sleep
- » neuroanatomical, neurobiological and neurophysiological basis for sleep and wakefulness and for REM vs. NREM sleep
- » normal sleep architecture: including the current classification of sleep stages, normal arousal patterns, and normal sleep movements
- » ontogeny of sleep and of breathing irregularities in sleep
- » psychophysiology of the drowsy state
- » sleep stages
- » sleep structure and sleep architecture changes with age

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure. Advanced Trainees will know how to explain the investigation or procedure to patients⁴, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

Sleep measurement and investigations

- Indications for sleep investigations
 - » circumstances when sleep investigations are not indicated
 - common questionnaire measurements of sleepiness and quality of life scores and know the limitations of these measurements
 effects of medications, comorbidities such as psychiatric and medical conditions and lifestyle on sleep wake patterns and how these factors can affect measurements of sleep propensity
 indications and use of tests for sleep propensity
 - indications and use of tests for sleep propensity
 indications for investigation with type I-IV devices
 - mechanisms, clinical features and specific measurements of common sleep disorders
 - » the role of PSGs in sleep disorders that are predominantly behavioural
 - what measurements are possible and appropriate for disorders listed in the ICSD-3-TR
- Principles of measurement parameters
 - » basic principles underling the recordings of bioelectrical signals e.g. frequency, appropriate filters, understanding of common artefacts in PSG
 - measurements across the range of sleep studies and determine adequacy of recording techniques
 - » measurements indicated for further evaluation in the event of a non-diagnostic sleep study.
- PSG recording, normal and abnormal patterns
 - » respiratory events
 - apnoeas obstructive, central and mixed,
 - hypopnoeas,
 - respiratory effort related arousals
 - age-appropriate normal sleep stage distribution and proportions
 - » arousals
 - » infant sleep scoring vs standard paediatric sleep scoring
 - » PLMs
 - » REM sleep without atonia (RSWA)
 - » raw data from sleep studies including the following parameters:

⁴ References to patients in the remainder of this document may include their families and/or carers

- airflow parameters
- airway pressures
- body position
- chin electromyography
- effort parameters
- electrocardiography
- electroencephalogram (EEG)
- electro-oculogram
- leg electromyography derivations
- measures of CO2 (end tidal vs. transcutaneous and their pros and cons)
- oxygen saturation
- » respiratory events
 - apnoeas obstructive, central and mixed,
 - hypopnoeas,
 - respiratory effort related arousals
- scoring criteria, recognise how different scoring criteria may alter results and therefore interpretation of severity

The use of scoring concordance software

- Appropriateness of performing sleep investigations based on clinical features
- Brain CT
- Brain MRI scan
- Cephalometry
- Chest x-ray
- Continuous oximetry and measurements of CO2 in sleep
- Diaphragmatic electromyography monitoring
- Diaphragm testing (e.g. SNIFF test)
- Drug-induced sleep endoscopy (DISE)
- Limited channel sleep studies
 - » cardio-respiratory sleep studies
 - » limited channel PSG studies
 - » overnight oximetry
 - » safety and technical limitations of studies performed in the home
- Maintenance of Wakefulness Test (MWT)
- Methods of measuring respiration during sleep
- Multiple Sleep Latency Test (MSLT)
- Periodic Limb Movements (PLMs)
- Positive airway pressure titration and review studies
- Oesophageal pressure monitoring
- Questionnaire measurements for sleepiness and sleep disorders
- Repeat investigations
 - Respiratory function tests to assess sleep breathing disorders:
 - arterial blood gases (role of capillary and venous blood gas measurements)
 - » cardiopulmonary exercise testing and other tests of ventilatory response
 - » fitness to fly/hypoxic challenge
 - » gas transfer
 - » lung volumes
 - » oximetry
 - » spirometry
 - » tests of respiratory muscle strength (including peak cough flow)
- Sensitivity of the different measurements of respiration
- Sleep investigation report
- Sleep propensity tests
- Upper airway imaging
- Upper airway examination including nasoendoscopy
- Video and EEG during a paroxysmal event at night

	 Procedures/treatments Compliance monitoring (remotely or locally) Mask fitting (including acclimatisation) and troubleshooting for PAP therapy Medication Non-pharmacological treatment such as CBT-I Assessment tools Actigraphy Computerised PSG systems Hardware and software of the computerised equipment used in a sleep service Scoring of sleep, arousals, cardiac events, movements, and respiratory events Sensor devices used to measure physiological variables as part of sleep studies Sleep diaries Sleep monitoring equipment
IMPORTANT SPECIFIC ISSUES	• Explain sensors, filters, gain, sampling times (frequencies) and linearity of the equipment used in the sleep laboratory to technical and other staff
Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis, management and outcomes.	 Infection control and prevention of cross-infection Influence of other disease processes on common measurement parameters including: cardiovascular disease (e.g. heart failure) chronic respiratory illness e.g. cystic fibrosis epilepsy and it's treatments (e.g. effect of antiepileptics on sleep EEG)

- obesity »
- prematurity >>
- respiratory muscle weakness »
- stroke >>
- Limitations and common parameters in sleep investigation •
- Referring where appropriate depending on sleep disorder e.g. respiratory physician, neurologist, sleep psychologist, dietitian, dentist etc.
- Teach patients, their families, health professionals and the public about • the nature and importance of normal sleep



Knowledge guide 2 – Sleep related breathing disorders

Advanced Training in Sleep Medicine (Paediatrics & Child Health))

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- Apnoea's/gasping in sleep •
- Behavioural and learning problems
- Cognitive impairment
- Excessive sleepiness •
- Headaches
- Impaired growth/failure to thrive
- Increased work of breathing •
- Mood changes •
- Poor concentration
 - Cognitive impairment Mood changes
 - Poor sleep quality
- Snoring
- Sudden waking with shortness of breath

Conditions

- Sleep apnoea
- Central »
- Obstructive
- Treatment Emergent Central Sleep Apnoea (e.g. CPAP inducing central apnoea)
- Sleep hypoventilation disorders
- Sleep related hypoxemia disorders

LESS COMMON OR **MORE COMPLEX PRESENTATIONS AND CONDITIONS**

Advanced Trainees will understand these presentations and conditions.

Advanced Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.

Conditions

- Central Sleep Apnoea due to High-Altitude Periodic Breathing
- Complex sleep apnoea
- **Congenital Central Alveolar** Hypoventilation Syndrome
- Late-Onset Central Hypoventilation with Hypothalamic Dysfunction (for example ROHHAD)
- Idiopathic Central Alveolar • Hypoventilation
- Primary Central Sleep Apnoea

For each presentation and condition, Advanced Trainees will know how to:

Synthesise

- » conduct an appropriate examination
- » consider the impact of illness and disease on patients and their quality of life when developing a management plan
- » establish a differential diagnosis
- » identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- » plan and arrange appropriate investigations
- » recognise the clinical presentation
- » take a comprehensive clinical history

Manage

- » involve multidisciplinary teams
- » prescribe therapies tailored to patients' needs and conditions
- » provide evidence-based management
- » recognise potential complications of disease and its management, and initiate preventative strategies

Consider other factors

- » consider age-appropriate treatment options based on maturity, and mental understanding
- » identify individual and social factors and the impact of these on diagnosis and management

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Assessment process for oxygen therapy
- Association of excessive sleepiness and other daytime symptoms
 with SDB syndromes
- Central role of adenotonsillectomy in treating the majority of children with OSA including other indications, contraindications and predictors of post-operative compromise
- Clinical diagnosis and management of OSA complicated by respiratory failure and/or right heart failure, e.g. where SDB overlaps with other diseases such as gross obesity or neuromuscular disease
- Clinical features of OSA and the differential diagnoses of OSA symptoms
- Delivery systems and use of oxygen therapy in CPAP and nIPPV
- Epidemiology of SDB. Explain the effects of age, gender, obesity, and race on prevalence of SDB and recognise lesser known associations
- Indications and application of non-invasive vs. invasive ventilation for hypercapnic respiratory failure
- Indications and guidelines for use of oxygen therapy related to sleep breathing disorders
- Lifestyle implications of SDB
- Other treatment options for OSA including CPAP, oral appliances, positional therapy, lifestyle such as weight loss and upper airway or mandibular/maxillary surgery
- Pathophysiology of SDB including the different theories of causation of both central and OSA, and sleep hypoventilation syndromes
- Physiology of ventilatory drive and gas exchange
- Potential adverse effects of oxygen therapy
- Public health implications of SDB including impact on:
 - » cardiovascular morbidity and mortality
 - » cognitive performance, and emotional/psychological health
 - » metabolic syndrome, diabetes, obesity, and other co-morbid medical conditions
- Relative strengths and weaknesses of full PSG vs. limited sleep study systems for diagnosing and managing OSA
- Role of cough assist devices and sputum clearance in patient with neuromuscular weakness
- Role of high flow nasal cannula (HFNC) therapy especially in CPAP and BPAP intolerant groups
- Role of PSG and limited sleep studies in optimising non-invasive ventilator settings, patient-machine synchrony, and triggering and mask interface
- Role of sleep studies in diagnosis with reference to techniques used for assessing relative contributions from upper airway obstruction vs. 'pump' failure, and monitoring hypoventilation with transcutaneous CO2
- Role of sleep-related hypoventilation in acute and chronic hypercapnic respiratory failure, including neuromuscular/chest wall disease, reduced central drive, and diseases that chronically increase respiratory load, e.g., obesity
- Role of telemonitoring and remote monitoring of nIPPV in the patients with hypercapnic respiratory failure
- Role of tracheostomy in airway management
- Role played by common contributors to SDB in a clinical context
- Use of non-invasive positive pressure ventilation (nIPPV) in managing both acute and chronic hypercapnic respiratory failure

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Investigations

- Assess and recognise typical and atypical features of sleep disordered breathing
- Distinguish between different causes of hypoventilation syndromes

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

- Evaluate clinical investigations and circumstances to formulate an individual treatment strategy
- Indication and limitations of oximetry in patients with sleep disordered breathing including importance of sampling rates and averaging time
- Interpret PSG findings in patients on ventilatory support and make recommendations about treatment settings; this includes interpretation of pressure determination studies and instructions on how to make adjustments
- Interpret PSG study data, including oximetry and TcCO2
- Measure oxygen saturation and arterial oxygen tension
- Perform the relevant neurological, respiratory, cardiovascular and general physical examinations
- Recognise the role of multidisciplinary teams in the management of patients with hypoventilation syndrome (e.g. dieticians, physiotherapists, nursing, neurologists)
- Recognise when the patient's symptoms are not consistent with a sleep breathing disorder
- Select and interpret appropriate respiratory function tests and radiology investigations
- Take a thorough sleep history from the patient as well as bed environment
- Use and interpret ICSD-3-TR

Procedures

- Apply oxygen delivery systems, such as nasal prongs and masks
- Assist with the management of weaning from a ventilator with nIPPV
- Continuous positive airway pressure (CPAP)
 - » selection and application of nasal and full-face masks
 - » adjustment of device settings and cleaning procedures
 - » trouble shooting treatment problems
 - » use of chin straps
 - » use of humidification in circuits
 - » monitor patient progress and usage/compliance.
 - » Role of auto-titrating machines (e.g., APAP) and the limitations in paediatrics, especially in regard to size of patients and tidal volumes
- Non-invasive positive-pressure ventilation (*nIPPV*)
 - adjustment of device settings including an understanding of various modes and settings (e.g. ST, PC, VAPS – volume assure pressure support such as iVAPS and AVAPS)
 - » monitoring patient progress
 - » selection and application of masks
 - » trouble-shooting treatment problems
 - » use of humidification circuits in nIPPV
- Oral appliance therapy

• Polysomnography (PSG)

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

- Apply a multidisciplinary approach in the management of sleeprelated breathing disorders
- Assess the contribution of SDB to respiratory failure, with particular reference to nocturnal hypoventilation
- Explain the public health implications of the high prevalence of SDB in a local context (hospital/local community) and on a national/international scale
- Manage basic tracheostomy care and refer for specialist assistance
 when indicated
- Manage complications from hypercapnic respiratory failure, and/or heart failure
- Manage CPAP side-effects and apply strategies to improve CPAP compliance

- Manage the transition from in-hospital to home care applying knowledge of available support services and home care teams
- Recognise the role of community, rehabilitation, and palliative care services in the management of patients with chronic respiratory failure
- Recognise when referral to another specialist is indicated
- Weigh and synthesise history and examination information to produce provisional and differential diagnosis and formulate and undertake management plan.



EDUCATE ADVOCATE INNOVATE

Knowledge guide 3 – Central disorders of hypersomnolence

Advanced Training in Sleep Medicine (Paediatrics & Child Health)

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- Changes to appetite or weight
- Decreased energy
- Difficulty concentrating
- Difficulty waking up from sleep
- Extreme daytime sleepiness
- Learning difficulties or behavioural problems
- Memory and speech difficulties
- Mood changes (e.g. irritation, anxiety)
- Paradoxical hyperactivity
- School absenteeism
- Sleeping more than average

Conditions

- Hypersomnolence
 - » Idiopathic hypersomnia
 - » Hypersomnia due to a medical condition
 - » Hypersomnia associated with a psychiatric condition
 - » Insufficient sleep
 - syndrome
 - » Narcolepsy type 1 Narcolepsy type 2
 - » Narcolepsy type 2

LESS COMMON OR MORE COMPLEX PRESENTATIONS AND CONDITIONS

Advanced Trainees will understand these presentations and conditions.

Advanced Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.

Presentations

- Disinhibited behaviours
- Hallucinations

Conditions

- Kleine-Levin Syndrome
- Menstruation-related hypersomnia

For each presentation and condition, Advanced Trainees will **know how to:**

Synthesise

- » conduct an appropriate examination
- consider the impact of illness and disease on patients and their quality of life when developing a management plan
- » establish a differential diagnosis
- identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- » plan and arrange appropriate investigations
- » recognise the clinical presentation
- » take a comprehensive clinical history

Manage

- » advocacy and liaison with school authorities
- » involve multidisciplinary teams
- » prescribe therapies tailored to patients' needs and conditions
- » provide evidence-based management
- recognise potential complications of disease and its management, and initiate preventative strategies

Consider other factors

- consider age-appropriate treatment options based on maturity and mental understanding
- identify individual and social factors and the impact of these on diagnosis and management

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Behavioural and pharmacological strategies to manage EDS and the daytime consequences of sleep disorders
- Clinical context in which limited channel sleep studies might be useful, including tests performed in the home
- Clinical context in which MSLT and MWT are indicated and agerelated limitations to these
- Common causes of hypersomnia, including behavioural and environmental factors, medication use, medical, psychiatric conditions, and primary sleep disorders
- Common causes of persistent EDS in patients with treated OSA
- Contents of the ICSD-3-TR Criteria for defining the severity of daytime sleepiness or inability to maintain wakefulness
- Daytime neurocognitive consequences of abnormalities of sleep/wake regulation
- Difference between fatigue, lethargy, tiredness and sleepiness/drowsiness
- Essential features of a sleep study report used in clinical decision making
- Essential features of reports on tests of sleep propensity used in clinical decision making
- Genetics, presentation, and treatment of narcolepsy
- How disease states and medication use can affect sleep-wake regulation and EDS
- Impact of drowsiness/sleepiness on school and home safety
- Impact of MSLT and MWT findings on driving
- Impact of sleep disorders on QoL and behaviour
- Important behavioural factors that influence subjective and objective sleepiness and neurocognitive function, e.g. chronic sleep restriction
- Important role of actigraphy and sleep diaries as part of the evaluation
- Indications for and the interpretation of common tests used in the evaluation of EDS and daytime consequences of sleep disorders
- Lifestyle implications of EDS and other sleep disorders
- Limitations of current available tests for assessment of EDS and daytime consequences of sleep disorders, and identify current research developments
- Models of sleep deprivation and sleep disruption and the effects on daytime function
- Nature of the above tests including details of how they are carried out
- Normal neurobiology and neuropharmacology of sleep-wake regulation
- Normative data for sleep architecture and tests of sleep propensity
- Other medical conditions that are associated with EDS (e.g. Prader-Willi Syndrome, Myotonic Dystrophy)
- Primary hypersomnia's of central origin that are associated with EDS, including narcolepsy and idiopathic hypersomnolence
- Range of limited channel sleep studies available
- Recognise the actions of centrally acting pharmacological agents and their interactions with sleep.
- The role of questionnaires and sleepiness scales in children

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

- InvestigationsAssess severity of daytime consequences of sleep disorders
- Identify EDS or inability to maintain wakefulness based on tests of sleep propensity

Advanced Trainees will know the scientific

foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable

- Interpret raw data from sleep studies including the following parameters:
 - » airflow parameters
 - » airway pressures
 - » body position
 - » chin electromyography
 - » effort parameters
 - » electrocardiography
 - » electroencephalogram (EEG)
 - » electromyography (EMG)
 - » electro-oculogram
 - » measures of CO2
 - » oxygen saturation
- Interpret results of investigations regarding EDS and daytime consequences of sleep disorders in the clinical context of the patient
- Perform a thorough history, examination, and sleep specific assessment, including use and limitations of sleepiness questionnaires with children
- Perform the relevant neurological, respiratory, neurological and general physical examinations
- Synthesise patient symptoms and signs into a comprehensive differential diagnosis and plan further investigation if needed
- Take a thorough sleep history from the patient, as well as bed environment and sleep hygiene behaviour including bedtime routine, screen time and diet

Procedures

- Actigraphy
- Maintenance of wakefulness test (MWT)
- Multiple sleep latency test (MSLT)
- Polysomnography (PSG)
- Urine drug screen (UDS)

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

- Determine optimal treatment settings from treatment sleep study parameters
- Determine the requirement for further evaluation in the event of an indeterminate limited channel sleep study
- Determine when a MSLT and MWT might be appropriate
- Explain and manage drug misuse and withdrawal
- Explain behavioural strategies to reduce the symptoms of EDS and the daytime consequences of sleep disorders, e.g. sleep education and schedule modification including the role of naps
- Explain lifestyle implications of EDS and daytime consequences of sleep disorders
- Explain public health and wider societal implications of the diagnosis of narcolepsy and related disorders (e.g. career choice, industrial safety)
- Generate reports for diagnostic and treatment sleep studies
- Identify pathological hypersomnolence or inability to maintain wakefulness based on tests of hypersomnolence
- Interpret results and formulate a management plan
- Monitor the pharmacotherapies for CNS disorders of hypersomnolence including the surveillance of side effects and compliance
- Prescribe pharmacotherapy for REM intrusion symptoms (such as cataplexy) in NT1 patients
- Prescribe pharmacotherapy to reduce symptoms of EDS and daytime consequences of sleep disorders
 - Recognise the indications for completion of a sleep diary:
 - » explain the completion of a sleep diary to patients/parent/carer.

- » interpret sleep diaries applying knowledge of normal sleep duration and timing according to age
- » use sleep diary information to inform treatment decisions
- Recognise the limitations and clinical applicability of various types of limited channel sleep studies, including overnight oximetry, cardio-respiratory sleep studies, and limited channel PSG studies
- Recognition of wearable devices and their limitations which are now widely available in the consumer market
- Surveillance of other disorders in patients with CNS disorders of hypersomnolence (e.g., increased risk of cardiovascular disease and appearance of obstructive sleep apnoea)



EDUCATE ADVOCATE INNOVATE

Knowledge guide 4 – Sleep related movement disorders

Advanced Training in Sleep Medicine (Paediatrics & Child Health)

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

LESS COMMON OR

PRESENTATIONS AND

Advanced Trainees will

Advanced Trainees will

that should be used to

help manage patients

and conditions.

with these presentations

understand the resources

MORE COMPLEX

understand these

presentations and

conditions.

CONDITIONS

Presentations

- Circadian variation in symptoms (e.g. worse in evenings)
- Effect of movement on symptoms
- Grinding teeth
- Headaches
- Hypnic jerks
- Jaw pain/lock jaw
- Leg cramps
- Periodic limb movements in sleep
- Uncomfortable sensations in legs
- Urge to move legs when at rest

Conditions

- Periodic Limb Movement Disorder (PLMD)
- Restless leg syndrome (RLS)
- Sleep Bruxism
- Sleep-related leg cramps

Presentations

- Humming
- Repetitive rhythmic movements (e.g. body rocking, head rolling)

Conditions

- Emerging sleep disorders such as restless sleep syndrome
- Propriospinal myoclonus at sleep onset (PSM)
- Rhythmic movement disorder
- Sleep-Related Hypermotor Epilepsy (SHE)
- Sleep-Related Movement Disorder due to a medical disorder, medicine, or substance

For each presentation and condition, Advanced Trainees will **know how to:**

Synthesise

- » conduct an appropriate examination
- consider the impact of illness and disease on patients and their quality of life when developing a management plan
- » establish a differential diagnosis
- identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- » plan and arrange appropriate investigations
- » recognise the clinical presentation
- » take a comprehensive clinical history

Manage

- » involve multidisciplinary teams
- » prescribe therapies tailored to patients' needs and conditions
- » provide evidence-based management
 » recognise potential
 - recognise potential complications of disease and its management, and initiate preventative strategies

Consider other factors

- consider age-appropriate treatment options based on maturity and mental understanding
- identify individual and social factors and the impact of these on diagnosis and management

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Abnormalities in sleep architecture, respiration or body movements, including PLMs
- Actions of centrally acting pharmacological agents and their interactions with sleep and PLMS
- Clinical context in which limited channel sleep studies might be useful, including tests performed in the home, and the range of limited channel sleep studies available
- Clinical features and differential diagnosis of RLS and PLMD
- Clinical features and differential diagnosis of sleep related movement disorders
- Essential features of a sleep study report used in clinical decision making and on tests of sleep propensity used in clinical decision making
- Measurement of periodic limb movements (PLMs)
- Psychiatric disorders with sleep movements, behaviours, and experiences as symptom
- Range of tests available to diagnose and manage sleep movement disorders, including PSG
- Rhythmic movement, sleep talking, hypnic jerks and bruxism
- Secondary causes and other precipitating factors that may cause RLS

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable

Investigations

- Apply an investigation plan for suspected RLS/ PLMD especially looking for secondary causes.
- Assess severity of daytime consequences of sleep disorders
- Interpret and report on typical PSG findings in PLMD, including seizure disorders
- Interpret raw data from sleep studies including the following parameters:
 - » airflow parameters
 - » airway pressures
 - » body position
 - » chin electromyography
 - » effort parameters
 - » electrocardiography
 - » electroencephalogram (EEG)
 - » electromyography (EMG)
 - » electro-oculogram
 - » leg sensors to measure movements
 - » measures of CO2
 - » oxygen saturation
- Perform a thorough history, examination, and sleep specific assessment
- Perform the relevant neurological, respiratory, and general physical examinations
- Synthesise patient symptoms and signs into a comprehensive differential diagnosis and plan further investigation if needed
- Take a thorough sleep history from the patient, as well as bed environment and sleep hygiene behaviour including bedtime routine, screen time and diet
- The role of iron in the pathogenesis and treatment of movement disorders, and the interpretation and limitations of iron studies in children

Procedures

- Electroencephalogram (EEG)
- Polysomnographic (PSG)
- Multiple sleep latency test (MSLT)

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

- Apply and locate sensors for monitoring sleep disorders
- Determine optimal treatment settings from treatment sleep study
 parameters
- Determine the requirement for further evaluation in the event of an indeterminate limited channel sleep study
- Explain and manage drug misuse and withdrawal may impact on RLS/PLMD
- Explain role of video PSG and home video for diagnosis to patients
- Generate reports for diagnostic and treatment sleep studies
- Interpret results and formulate a management plan
- Monitoring for efficacy and side effects from RLS/PLMD pharmacotherapy
- Prescribe and supervise drug management of RLS/ PLMD
- Recognise the limitations and clinical applicability of various types of limited channel sleep studies, including overnight oximetry, cardiorespiratory sleep studies, and limited channel PSG studies
- Recognise when referral to another specialist is indicated
- Role of non-pharmacological therapy for RLS/PLMD
- Weigh and synthesise history and examination information to produce provisional and differential diagnosis and formulate and undertake management plan



EDUCATE ADVOCATE INNOVATE

Knowledge guide 5 – Parasomnia

Advanced Training in Sleep Medicine (Paediatrics & Child Health)

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- Bedwetting
- Complex automatic behaviours
- Confusion when waking
- Daytime sleepiness
- Difficulty sleeping
- Episodes of incomplete awakening and limited responsiveness
- Inability to move upon falling asleep or waking
- Screaming/crying when
- waking
- Sleepwalking
- Vivid dreams that cause
- feelings of intense fear/anxiety
- Vocalisations during sleep

Conditions

- Catathrenia (sleep-related groaning)
- NREM disorders
 - » Confusional arousal
 - » Night terrors
 - » Sleepwalking
 - » Somniloquy
 - **REM** disorders
 - » Nightmare disorder
 - Sleep paralysis
 - Sleep enuresis (bedwetting)

For each presentation and condition, Advanced Trainees will **know how to:**

Synthesise

- » conduct an appropriate examination
- consider the impact of illness and disease on patients and their quality of life when developing a
- management plan» establish a differential
- diagnosis
- identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- » plan and arrange appropriate investigations
- recognise the clinical presentation
- » take a comprehensive clinical history

Manage

- » involve multidisciplinary teams
- » prescribe therapies tailored to patients' needs and conditions
- » provide evidence-based management
- recognise potential complications of disease and its management, and initiate preventative strategies

Consider other factors

- consider age-appropriate treatment options based on maturity and mental understanding
- identify individual and social factors and the impact of these on diagnosis and management

LESS COMMON OR MORE COMPLEX

Sleep-Related hallucinations

PRESENTATIONS AND CONDITIONS

Advanced Trainees will understand these presentations and conditions.

EPIDEMIOLOGY, PATHOPHYSIOLOG Y, AND CLINICAL SCIENCES

Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Actions of pharmacological agents and their interactions with sleep that may exacerbate parasomnias
- Classification of parasomnias depending on sleep state
 - Clinical features for NREM arousal disorders and their variants, e.g. confusional arousals, sleepwalking, and sleep terrors
- Clinical utility of home videos
- Collaborative investigations with other sub-specialties, such as neurologists, which might include video-telemetry
- Compare the differences between nightmares and sleep terrors
 - Contents of the ICSD-3-TR
 - Differential diagnoses of parasomnias, including sleep-related hypermotor epilepsy and psychiatric disorders
 - Essential features of a sleep study report used in clinical decision making
 - Principles of pharmacological and non-pharmacological management of parasomnias
 - Review the predisposing factors that may trigger an episode of parasomnia.
 - Spectrum of parasomnias and the basic features of confusional arousals, sleepwalking, sleep terrors, age specific presentation of various parasomnias in paediatric age group

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain

Investigations

- Assess severity of daytime consequences of sleep disorders
- Interpret and report on typical PSG findings in NREM arousal disorders, and seizure disorders
- Interpret raw data from sleep studies including the following parameters:
 - » airflow parameters
 - » airway pressures
 - » body position
 - » chin electromyography
 - » effort parameters
 - » electrocardiography
 - » electroencephalogram (EEG)
 - » electromyography (EMG)
 - » electro-oculogram
 - » measures of CO2
 - » oxygen saturation
 - Interpret video and EEG during a paroxysmal event at night and report differential diagnosis
- Perform a thorough history, examination, and sleep specific assessment
- Recognise features which may suggest parasomnia or seizure
- Synthesise patient symptoms and signs into a comprehensive differential diagnosis and plan further investigation if needed
 - Take a thorough sleep history from the patient, as well as bed environment and sleep hygiene behaviour including bedtime routine, screen time and diet Perform the relevant neurological, respiratory, and general physical examinations

informed consent where applicable. • Electroencephalogram (EEG) including full EEG • Polysomnography (PSG)		
 IMPORTANT SPECIFIC ISSUES Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care. Apply and locate sensors for monitoring sleep disorders Deliver comprehensive sleep education to patients Explain non-pharmacological and pharmacological measures for management of NREM parasomnias Explain role of video PSG and home video for diagnosis to patients Explain sensors, filters, gain, sampling times (frequencies) and linearity of the equipment used in the sleep laboratory to technical and other staff Prescribe and monitor drug management Recognise the indications for completion of a sleep diary: » explain the completion of a sleep diary to patients/carer. » interpret sleep diaries applying knowledge of normal sleep duration and timing according to age » use sleep diary information to inform treatment decisions Recognise when referral to another specialist is indicated, such as a psychologist and neurologists or 	SPECIFIC ISSUES Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into	 Deliver comprehensive sleep education to patients Explain non-pharmacological and pharmacological measures for management of NREM parasomnias Explain role of video PSG and home video for diagnosis to patients Explain sensors, filters, gain, sampling times (frequencies) and linearity of the equipment used in the sleep laboratory to technical and other staff Prescribe and monitor drug management Recognise the indications for completion of a sleep diary: » explain the completion of a sleep diary to patients/carer. » interpret sleep diaries applying knowledge of normal sleep duration and timing according to age » use sleep diary information to inform treatment decisions Recognise when referral to another specialist is indicated,

- such as a psychologist and neurologists or nephrologist/urologist (in cases of nocturnal enuresis)
 Weigh and synthesise history and examination informatio
- Weigh and synthesise history and examination information to produce provisional and differential diagnosis and formulate and undertake management plan



EDUCATE ADVOCATE INNOVATE

Knowledge guide 6 – Insomnia

Advanced Training in Sleep Medicine (Paediatrics & Child Health)

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- 'Curtain calls'/bedtime resistance
- Behavioural problems
- Daytime sleepiness
- Difficulty concentrating
- Difficulty falling asleep, staying asleep or waking too early at night
- Fatigue
- Learning difficulties
- Mood changes
- Separation anxiety
- Sleep association

Conditions

- Insomnia
 - » Insomnia associated with drug and alcohol use
 - » Insomnia due to irregular sleep schedules
 - Insomnia due to underlying psychiatric disorder such as depression or anxiety
 - Nocturnal feeding/drinking disorder
 - » Sleep onset association disorder

For each presentation and condition, Advanced Trainees will **know how to:**

Synthesise

- » conduct an appropriate examination
- » consider the impact of illness and disease on patients and their quality of life when developing a management plan
- » establish a differential diagnosis
- » identify relevant epidemiology, prevalence, pathophysiology, and clinical science
- » plan and arrange appropriate investigations
- » recognise the clinical presentation
- » take a comprehensive clinical history

Manage

- » involve multidisciplinary teams
- » prescribe therapies tailored to patients' needs and conditions
- » provide evidence-based management
- recognise potential complications of disease and its management, and initiate preventative strategies

Consider other factors

- » consider age-appropriate treatment options based on maturity and mental understanding
- » identify individual and social factors and the impact of these on diagnosis and management

LESS COMMON OR MORE COMPLEX PRESENTATIONS AND CONDITIONS

Advanced Trainees will understand these presentations and conditions.

Advanced Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.

Conditions

- Chronic insomnia
- Insomnia due to underlying physical conditions, e.g. respiratory or neurological conditions
- Psychophysiological insomnia

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Developmental types of insomnia including behavioural insomnia of childhood limit-setting type, and behavioural insomnia of childhood sleep onset-association type
- Different types of insomnia and their clinical features
- How circadian factors, such as shift work, advanced and delayed sleep, may produce apparent insomnia symptoms
- How other medical and psychiatric illness may produce symptoms of insomnia
- How other sleep disorders, such as sleep apnoea and RLS, may produce symptoms of insomnia
- Indications and limitations of assessment tools for insomnia, including actigraphy, sleep diaries and PSG
- Interaction, overlap, and interrelationship of psychiatric disorders with sleep disorders
- Non-pharmacological treatment options for insomnia
- Pharmacological treatment options for insomnia
- Relevant sections in ICSD-3-TR
- The theory underlying management strategies for insomnia

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

Investigations

- Ask about medications including OTC medications and recreational drug use.
- Perform the relevant neurological, respiratory, and general physical examinations
- · Psychiatric assessment with a focus on mood disorders
- Take a thorough sleep history from the patient, as well as bed environment and sleep hygiene behaviour including bedtime routine, screen time and diet

Procedures

- Actigraphy (when available/appropriate)
- Sleep diaries
- Use of validated screening questionnaires

Asses the role of online delivered CBT-i especially access to psychologists is limited

- Being able to tailor treatment strategies used according to patient age and developmental stage, and in the context of the family environment and dynamics
- Deliver comprehensive sleep education to patients, including the important of sleep hygiene
- Evaluate clinical circumstances, behavioural therapies and pharmacological treatments to formulate an individual treatment strategy
- Explain and manage drug misuse and withdrawal
- Explain the implementation of treatment strategies for insomnia, including sleep education and behavioural measures, such as

stimulus control, bedtime restriction, cognitive behavioural therapy, and relaxation therapies

- Prescribe and monitor pharmacological treatment for insomnia
- Recognise when referral to another specialist is indicated, particularly specialist sleep psychologists and psychiatrists
- Recognise when referral to another specialist is indicated.
- Techniques used for management of developmental/behavioural aspects of night-wakings
- Weigh and synthesise history and examination information to produce provisional and differential diagnosis and formulate and undertake management plan.



Knowledge guide 7 – Circadian disorders of the sleep-wake cycle

Advanced Training in Sleep Medicine (Paediatrics & Child Health)

KEY PRESENTATIONS AND CONDITIONS

Advanced Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

Presentations

- Abnormal or no regular sleep • pattern
- Chronic sleep disturbances •
- Difficulty falling asleep •
- Difficulty waking •
- Excessive daytime sleepiness •
- Insomnia symptoms •
- Mood changes, such as depression and irritability
- Reduced concentration .
- Reduced performance at school and/or social spheres
- Waking up excessively early .

Conditions

- Adolescent sleep phase disorder
- Delayed and advanced sleepwake phase disorders
- Irregular sleep-wake rhythm disorder

Conditions

LESS COMMON OR **MORE COMPLEX** PRESENTATIONS AND CONDITIONS

Advanced Trainees will understand these presentations and conditions.

Advanced Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.

- Circadian rhythm disorders that are part of an underlying developmental or neurogenetic condition (e.g. Smith-Magenis syndrome, Angelman syndrome)
- Jet lag
- Non-24-hour sleep-wake rhythm disorder
- Shift work disorder
- Sleep disorders in the severely visually impaired

For each presentation and condition, Advanced Trainees will know how to:

Synthesise

- conduct an appropriate » examination
- consider the impact of illness » and disease on patients and their quality of life when developing a management plan
- establish a differential » diagnosis
- identify relevant epidemiology, » prevalence, pathophysiology, and clinical science
- plan and arrange appropriate » investigations
- recognise the clinical » presentation
- take a comprehensive clinical » history

Manage

- involve multidisciplinary teams »
- prescribe therapies tailored to » patients' needs and conditions
- provide evidence-based » management »
 - recognise potential complications of disease and its management, and initiate preventative strategies

Consider other factors

- consider age-appropriate » treatment options based on maturity and mental understanding
- identify individual and social » factors and the impact of these on diagnosis and management

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL **SCIENCES**

Advanced Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Actions of pharmacological agents and their interactions with sleep
- Circadian effects on sleep duration and timing •
- Clinical features, evaluation, and management associated with jet lag • and shift work related circadian rhythm disorders, and how they may produce apparent insomnia symptoms
- Clinical features, evaluation, and management of delayed and • advanced sleep phase syndrome
- Contents of the ICSD-3-TR •
- Effect of physical impairments such as blindness on circadian disorders

- Normal sleep and circadian physiology including variation by age
- Principles of pharmacological management of sleep disorders
- Underlying neurological disorders and their effect on circadian disorders

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Advanced Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Advanced Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

IMPORTANT SPECIFIC ISSUES

Advanced Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

Investigations

- Assess severity of daytime consequences of sleep disorders
- Interpret subjective and objective measures of circadian rhythm
- Perform a thorough history, examination, and sleep specific assessment
- Perform the relevant neurological, respiratory, and general physical examinations
- Recognise the indications for actigraphy in the clinical context
 - » explain carrying out actigraphy to patients
 - » interpret actigraphy results applying knowledge of normal sleep duration and timing
 - use actigraphy information to inform treatment decisions
- Synthesise patient symptoms and signs into a comprehensive differential diagnosis and plan further investigation if needed
- Take a thorough sleep history from the patient, as well as bed environment and sleep hygiene behaviour including bedtime routine, screen time and diet

Procedures

- Actigraphy (when available)
- Physiologic circadian phase markers (e.g. saliva or urine melatonin level monitoring, core body temperature monitoring)
- Polysomnography (PSG)
- Sleep diary
- Apply and locate sensors for monitoring sleep disorders
- Consideration of lifestyle modifications
- Deliver comprehensive sleep education to patients
- Explain and manage drug misuse and withdrawal
- Explain role (if any) of video PSG and home video for diagnosis to patients
- Explain sensors, filters, gain, sampling times (frequencies) and linearity of the equipment used in the sleep laboratory to technical and other staff
- Explain strategies for rapid adjustment to new schedules or time zones
- Explain the concept of 'social jet lag' to patients and families and the importance of a regular sleep schedule
- Explain the management of altered sleep phase, e.g. light therapy, bedtime scheduling, and melatonin administration, lifestyle changes such as morning sunlight, regular meals, leaving the bedroom/house and engaging in external activities
- Prescribe and give advice about use of pharmacotherapy, in particular melatonin and melatonin agonists
- Recognise the indications for completion of a sleep diary:
 - » explain the completion of a sleep diary to patients

- » interpret sleep diaries applying knowledge of normal sleep duration and timing according to age
- » use sleep diary information to inform treatment decisions
- · Recognise when referral to another specialist is indicated
- Understand the impact of delayed sleep phase in adolescence on daytime functioning including school attendance, and the complex interaction/overlap in presentation with mental health disorders and/or school refusal