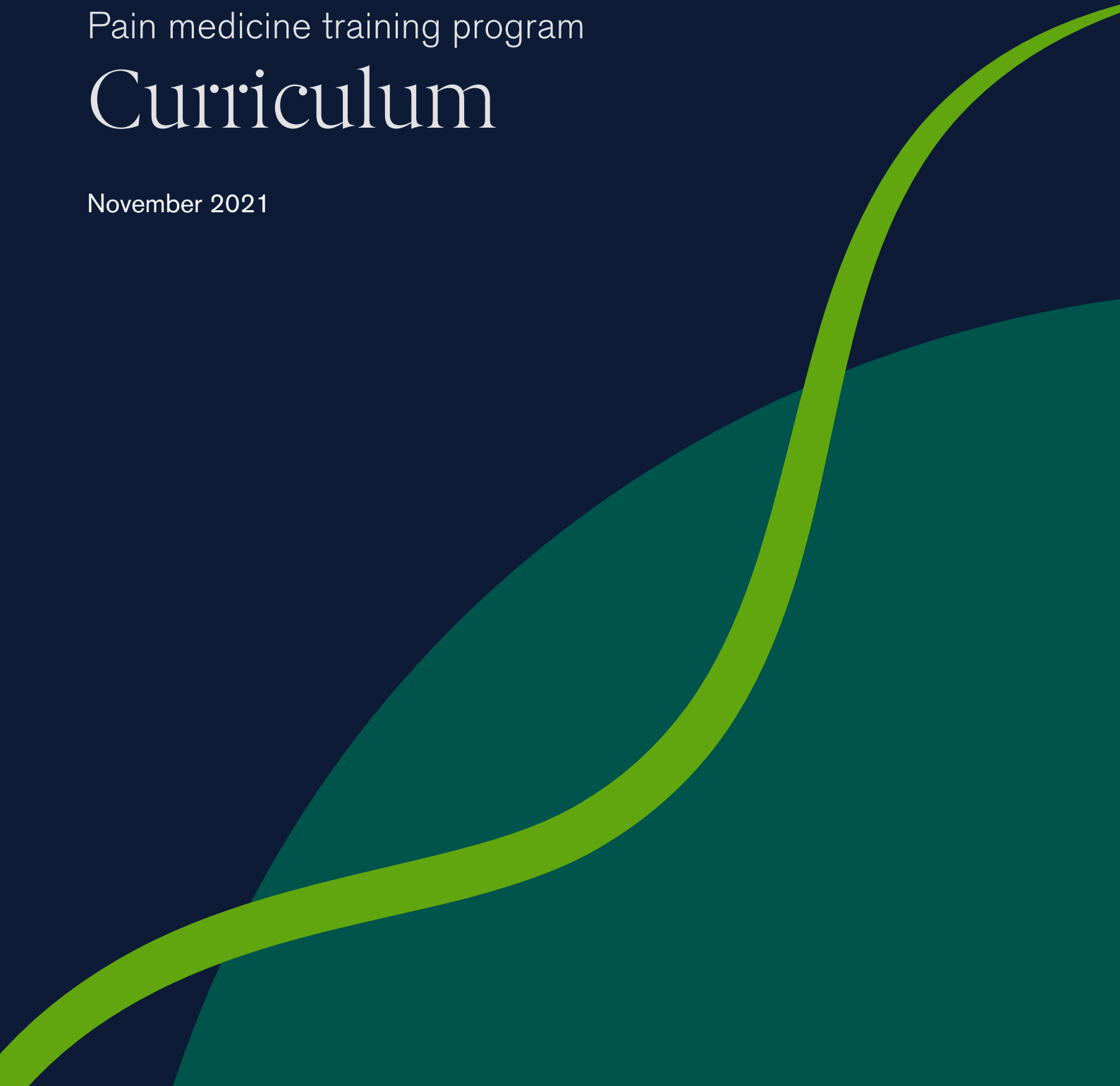


Pain medicine training program

# Curriculum

November 2021



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Version	Author	Approved by	Approval date	Sections modified	Date of next review
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## Introduction

The Faculty of Pain Medicine (FPM) is the professional organisation in Australia and New Zealand for specialist pain medicine physicians (Fellows) and specialist pain medicine physicians in training (trainees) and is directly responsible for the education and training, examination and specialist accreditation of pain medicine physicians in these countries. The Faculty provides a two-year training program in pain medicine, undertaken in hospitals and clinical placements approved by FPM, leading to the specialist qualification of diploma of fellowship.

### The scope of pain medicine practice

The specialty of pain medicine is concerned with the study of pain from a sociopsychobiomedical perspective. Clinically this incorporates the evaluation, treatment and rehabilitation of persons with pain. The field spans three major clinical areas:

1. **Acute pain** – post-operative, post-trauma, acute episodes of pain in medical conditions.
2. **Cancer pain** – pain due to tumour invasion or compression; pain related to diagnostic or therapeutic procedures; pain due to cancer treatment.
3. **Chronic non-cancer pain** – including more than 200 conditions described in the *IASP Taxonomy*<sup>1</sup>.

### Graduate outcome statement

A specialist pain medicine physician practises within a sociopsychobiomedical paradigm<sup>2</sup> to provide both direct care to patients whose main challenge is the management of pain and leadership in, coordination of and advocacy for such care.

### Aim of the curriculum

The purpose of the curriculum is to define the required learning, teaching and assessment of the FPM training program.

More specifically, the curriculum aims to:

Articulate the scope of practice required by a specialist pain medicine physician (SPMP) including breadth and depth of knowledge, range of skills and professional behaviours necessary for quality patient care.

- Guide supervisors of training and other Fellows involved in the training program with respect to suitable learning experiences for trainees.
- Foster trainees' self-directed learning by providing clear requirements.
- Promote regular and productive interaction between trainees and supervisors, through formative workplace-based assessments and feedback.
- Provide consistency of standards and outcomes across different training settings.
- Enable comparison with international training programs with respect to standards of experience, education and assessment.
- Provide a framework to inform the scope of continuing professional development activities.

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<sup>1</sup> Classification of Chronic Pain, Second Edition (Revised), IASP Task Force on Taxonomy, edited by H. Merskey and N. Bogduk, IASP Press, Seattle, 2018

<sup>2</sup>In this context, a paradigm is defined as a distinct set of concepts and practices that define a scientific discipline. (After Thomas Kuhn, *The Structure of Scientific Revolutions*, 1962)

## Key sections of the curriculum

The key themes/sections of the curriculum are the:

1. Conceptual basis of pain medicine
2. Pain Medicine Roles in Practice
3. Essential topics areas (ETAs)
4. Optional topic areas (OTAs)

The conceptual basis of pain medicine introduces the major philosophical and conceptual principles that inform the practice of pain medicine.

A key principle of the curriculum is an emphasis on trainees' development across all professional roles. Using the CanMEDS framework from the Royal College of Physicians and Surgeons of Canada as a base, the Pain Medicine Roles in Practice have been designed to emphasise a sociopsychobiomedical orientation to practice, rather than a narrow biomedical one. They have the titles of clinician, professional, scholar, communicator, collaborator, leader and manager, and health advocate. The clinician role, which articulates the skills and attitudes required of a specialist pain medicine physician when working with patients and the knowledge to perform these skills, is the focus of outcomes within the various essential topic areas.

The essential topic areas direct teaching and learning in relation to specific topic areas in pain medicine. The topics of the essential topic areas were chosen as those areas in which the expertise of the specialist pain medicine physician should be paramount. They are not intended to be a comprehensive coverage of the discipline of pain medicine but rather to be integrative. For example, the themes in "mechanisms in the biomedical dimension of pain" and in "problematic substance use" pervade all areas of pain medicine practice, while there is much clinical overlap between "spinal pain", "widespread pain" and "visceral pain". It is important that the essential topic areas are studied in conjunction with the Pain Medicine Roles in Practice.

The four optional topic areas outline sample learning outcomes for areas of pain medicine that may be a focus of the practice development stage of training. A trainee with an interest in one or multiple of these areas may utilise some or all the suggested learning outcomes or develop their own learning outcomes. These are example areas of study and trainees are not limited to these areas. The learning outcomes are assessed via workplace-based progressive feedback tools but will not form part of the fellowship examination.

## Assessment

The Faculty has developed an assessment strategy that supports the curriculum.

Workplace-based progressive feedback tools provide formative assessment (that is, assessment *for* learning) and involve direct observation of trainees as they complete consultations with patients and explain proposed management plans to them. Trainees are also assessed on their ability to access and use current evidence in the development of management plans, and to comprehensively discuss cases and the rationale for their management approach.

Specific progressive feedback forms correspond to each type of tool. Individual items and descriptors on the workplace-based progressive feedback forms have been developed from learning outcomes within the Pain Medicine Roles in Practice. Workplace-based progressive feedback includes experiences in prescribed topic areas of the curriculum, as well as options for trainees to guide their own learning in areas of need.

Workplace-based progressive feedback tools provide a framework to support teaching and learning in the clinical environment and promote a holistic view of a trainee's clinical practice. Individually, they provide a prompt for specific feedback on trainee performance and collectively create a record to demonstrate development and inform regular review at various intervals during the training program.

Trainee progression is based on the achievement of competencies. Eligibility for fellowship is determined by successful completion of a range of formative assessments, as described above, together with

summative assessments including a clinical case study, long case assessments and the fellowship examination.

## Section One: Conceptual basis of pain medicine

### 1. Conceptual basis of pain medicine

This section addresses major philosophical and conceptual principles that inform the practice of pain medicine. Given the potential complexity of the discipline, a thorough understanding of why a sociopsychobiomedical conceptual framework is preferred and critical appreciation of basic definitions and taxonomy are fundamental. The broad topics here recur throughout the curriculum.

***By the end of training, a trainee will be able to:***

Code	Learning outcome
1.1	Critically discuss the International Association for the Study of Pain (IASP) definition of pain.
1.2	Discuss the evolution of the sociopsychobiomedical conceptual framework in pain medicine.
1.3	Describe how the following factors may influence the patient's experience of illness and pain: <ul style="list-style-type: none"> <li>• Social.</li> <li>• Cultural.</li> <li>• Psychological.</li> <li>• Personality.</li> <li>• Physical.</li> <li>• Genetic.</li> </ul>
1.4	Describe medicine's acceptance of Cartesian dualism and its limitation.
1.5	Describe the ICD-11 taxonomy of chronic pain.
1.6	Discuss the distinction between nociception and pain.
1.7	Compare and contrast the concepts of acute and chronic pain.
1.8	Compare and contrast cancer pain and chronic non-cancer pain.
1.9	Define and discuss: <ul style="list-style-type: none"> <li>• Placebo.</li> <li>• Nocebo.</li> <li>• Placebo response.</li> <li>• Placebo effect</li> </ul>
1.10	Recognise the uncertainty inherent in the practice of pain medicine.

## Section Two: Pain medicine roles in practice

### 2.1 Clinician

As a *clinician*, the specialist pain medicine physician (SPMP) dynamically applies high-level knowledge, skills and professional attitudes in the practice of pain medicine across stable, unpredictable and complex situations.

The clinician role describes in particular the skills and knowledge to be acquired during the course of pain medicine training.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Clinical assessment and formulation	
2.1.1	Elicit and interpret a detailed sociopsychobiomedical history of: <ul style="list-style-type: none"> <li>• The patient experiencing pain.</li> <li>• The pain experienced by the patient.</li> <li>• The consequences of the experience of pain for the patient.</li> </ul>
2.1.2	Explore the patient's issues, concerns, beliefs, goals and expectations with respect to their pain experience.
2.1.3	Discuss the application of the World Health Organization (WHO) International Classification of Functioning, Disability and Health (ICF) concepts to people experiencing pain.
2.1.4	Describe the current DSM and ICD frameworks for classification of psychiatric disorders with particular reference to anxiety and mood disorders.
2.1.5	Perform a focused social assessment, including but not limited to: <ul style="list-style-type: none"> <li>• Cultural beliefs.</li> <li>• Eating habits and nutrition.</li> <li>• Employment/occupational factors.</li> <li>• Family and life roles.</li> <li>• Financial status.</li> <li>• Housing.</li> <li>• Meaning and purpose.</li> <li>• Mobility, including driving capability.</li> <li>• Recreational activities.</li> <li>• Support.</li> </ul>
2.1.6	Perform a focused psychological assessment, including but not limited to: <ul style="list-style-type: none"> <li>• Cognitive impairment.</li> <li>• Coping strategies.</li> <li>• Developmental history.</li> <li>• Family medical and psychological history.</li> <li>• Identification of lifetime stresses.</li> <li>• Personal psychological history.</li> <li>• Personality style.</li> <li>• Sexual function.</li> <li>• Sleep function.</li> </ul>



2.1.7	Perform a mental state examination.
2.1.8	Perform a focused biomedical assessment.
2.1.9	Adapt assessment techniques to socially, culturally and linguistically diverse populations, specifically Maori, Aboriginal and Torres Strait Islanders.
2.1.10	Adapt assessment techniques to vulnerable populations, including but not limited to: <ul style="list-style-type: none"> <li>• Children.</li> <li>• Older persons.</li> <li>• Persons with cognitive, behavioural, mobility or communication impairments.</li> </ul>
2.1.11	Perform and interpret a comprehensive pain-orientated physical examination, incorporating: <ul style="list-style-type: none"> <li>• Neurological assessment.</li> <li>• Musculoskeletal assessment.</li> <li>• Pain oriented sensory testing (POST).</li> <li>• Assessment of function.</li> <li>• Relevant systems.</li> </ul>
2.1.12	Critically review existing investigations and interpretations, particularly with respect to false positives in diagnostic imaging and laboratory results.
2.1.13	Make judicious and resource-sensitive decisions about obtaining further investigative options.
2.1.14	Integrate sources of information from the social, psychological and biomedical dimensions into a multi-axial formulation of diagnosis, function and context.
Preparing management plans	
2.1.15	Devise a management plan tailored to the individual patient.
2.1.16	Describe the differences between active and passive modalities of therapy.
2.1.17	Discuss approaches to treatment that arise out of the sociopsychobiomedical paradigm.
2.1.18	Recognise and respond to the uncertainty inherent in the practice of pain medicine, including but not limited to: <ul style="list-style-type: none"> <li>• Accommodating unpredictability.</li> <li>• Managing risk in complex patient care situations.</li> <li>• Varying practice according to contextual and cultural influences.</li> </ul>
2.1.19	Critically discuss the role of these psychological therapies related to pain medicine: <ul style="list-style-type: none"> <li>• Cognitive and behavioural therapies.</li> <li>• Mindfulness-based therapies including acceptance and commitment therapy.</li> <li>• Motivational interviewing.</li> </ul>
2.1.20	Recognise the role of other psychological therapies, including but not limited to: <ul style="list-style-type: none"> <li>• Narrative therapy.</li> <li>• Psychodynamic psychotherapy.</li> <li>• Problem-solving therapy.</li> <li>• Family therapy.</li> </ul>
2.1.21	Describe pharmacokinetic differences between the routes of administration of drugs used in pain medicine.
2.1.22	Describe the pharmacodynamic properties of drugs used in pain medicine.

2.1.23	Describe pharmacogenetic variability of drugs used in pain medicine.
2.1.24	Critically discuss the evidence base for the efficacy and adverse effects of drugs used in the management of pain.
2.1.25	Describe the withdrawal regimens for drugs commonly used in pain medicine.
2.1.26	With respect to opioids: <ul style="list-style-type: none"> <li>• Compare and contrast rational use in acute, chronic non-cancer and cancer-associated pain.</li> <li>• Critically discuss commonly used dose equivalents.</li> <li>• Discuss the rationale for opioid rotation.</li> <li>• Describe the use and idiosyncrasies of methadone and buprenorphine.</li> <li>• Critically discuss opioid-induced hyperalgesia.</li> <li>• Discuss the long-term effects of the use of opioids including, but not limited to their immuno-modulatory, endocrine and psycho-cognitive effects.</li> </ul>
2.1.27	Critically discuss the evidence base for the efficacy and adverse effects of cannabinoids in the management of pain.
2.1.28	Discuss the role of therapies designed to restore physical function, specifically the disciplines of physiotherapy and occupational therapy.
2.1.29	Discuss the role of procedural treatment modalities related to pain medicine.
2.1.30	Critically discuss the use of complementary and alternative medicines (CAM) used in the treatment of pain.
2.1.31	Differentiate between interdisciplinary and multidisciplinary care in pain management.
Implementing management plans	
2.1.32	Explain to the patient the multi-axial formulation and the proposed management plan.
2.1.33	Negotiate a therapeutic alliance with the patient towards implementation of the management plan.
2.1.34	Supervise and monitor patient progress through ongoing interdisciplinary consultation.
2.1.35	Demonstrate skills in cognitive and behavioural therapies, motivational interviewing and acceptance and commitment therapy.
2.1.36	Demonstrate ability to rationalise and supervise complex pharmacotherapy in patients experiencing pain.
2.1.37	Recognise placebo and nocebo effects in the evolving therapeutic plan.

## 2.2 Professional

As a *professional*, the specialist pain medicine physician (SPMP) has a unique role arising out of their advanced knowledge of the phenomenon of pain and its complex expression in people. Such work requires mastery of a complex skill set and the knowledge underpinning this, in addition to the art of medicine. The SPMP is committed to the health and wellbeing of individuals and society through ethical practice, characterised by high personal standards of behaviour, accountability and leadership.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Ethical practice	
2.2.1	Discuss bioethical principles of justice, autonomy, beneficence and non-maleficence.
2.2.2	Demonstrate ethical behaviours in relationships and practice with patients and colleagues, including honesty, integrity, commitment, compassion, respect and altruism.
2.2.3	Demonstrate understanding of principles of confidentiality, including access to, content of, and security of records.
2.2.4	Describe how informed consent for treatment in pain medicine may be affected by the context in which it is obtained.
2.2.5	Demonstrate understanding of the responsibilities involved in continuing care of people with complex pain conditions.
2.2.6	Recognise limitations of expertise and seek appropriate guidance.
2.2.7	Recognise and respond to ethical issues encountered in practice, including conflict of interest.
2.2.8	Demonstrate professional integrity and ethical conduct in response to industry marketing strategies.
Cultural awareness and sensitivity	
2.2.9	Demonstrate an understanding of how personal beliefs and cultural bias may influence interactions with others.
2.2.10	Describe how the special history of Māori and Pacific peoples and of Aboriginal and Torres Strait Islander peoples impacts on their current health status, education and communication.
2.2.11	Demonstrate understanding of the cultural and social context in which pain is experienced.
2.2.12	Incorporate health beliefs of the individual/community into management modalities in a culturally sensitive manner.
Legal and regulatory environment	
2.2.13	Adhere to the regulatory and legal obligations required of practice in the relevant jurisdiction(s).

2.2.14	Recognise and respond to others' unprofessional behaviour, which may include notification to regulatory authorities.
2.2.15	Demonstrate detailed knowledge of regulations with respect to controlled substances in the relevant jurisdiction(s).
2.2.16	Demonstrate detailed knowledge of the regulations regarding the use of cannabinoids in the relevant jurisdiction(s).
Health and sustainable practice of specialist pain medicine physicians	
2.2.17	Identify risks to personal physical and mental wellbeing.
2.2.18	Adopt strategies to enhance personal and professional awareness and insight, such as developing a mentor relationship, peer support networks and strategies to mitigate stress.
2.2.19	Recognise and respond to symptoms of personal illness, including mental health issues.
2.2.20	Recognise and respond to other professionals in need, including understanding formal pathways for assistance.
2.2.21	Organise, prioritise and delegate tasks in order to achieve manageable workloads.
2.2.22	Demonstrate self-reflection to appraise and improve efficiency and effectiveness in the workplace.

## 2.3 Scholar

As a *scholar*, the specialist pain medicine physician (SPMP) demonstrates active commitment to learning, to the creation, dissemination, application and translation of knowledge relevant to pain medicine, and to the education of their patients, students, colleagues and within the community.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Ongoing professional learning	
2.3.1	Identify opportunities for further professional development and learning.
2.3.2	Participate in relevant professional and educational development in pain medicine and apply insights in practice.
2.3.3	Participate in practice evaluation, quality improvement and audit activities.
Critical appraisal of information	
2.3.4	Demonstrate ability to integrate knowledge in the clinical and social sciences relevant to pain medicine.
2.3.5	Describe the application and limitations of evidence-based medicine.
2.3.6	Conduct a systematic search for evidence.
2.3.7	Critically appraise scientific literature and translate evidence into decision-making about the care of patients with pain.
2.3.8	Demonstrate an understanding of research methodology, including the: <ul style="list-style-type: none"> <li>• Principles of clinical epidemiology.</li> <li>• Principles of biostatistics.</li> <li>• Concepts of reliability, validity, sensitivity, specificity, bias, false positivity and false negativity.</li> </ul>
Teaching of others	
2.3.9	Identify learning needs, effective teaching strategies and desired learning outcomes.
2.3.10	Demonstrate effective teaching of pain medicine.
2.3.11	Provide meaningful feedback to others.
New knowledge and practices in pain medicine	
2.3.12	Describe the principles and processes of research and scientific enquiry including: <ul style="list-style-type: none"> <li>• Research ethics.</li> <li>• Asking a research question.</li> <li>• Conducting a systematic search for evidence.</li> <li>• Selecting and developing appropriate methods to address a research question.</li> <li>• Applying appropriate statistical analysis.</li> <li>• Formatting and processing for research papers for publication.</li> </ul>
2.3.13	Contribute to clinical trials and/or research projects

## 2.4 Communicator

As a *communicator*, the specialist pain medicine physician (SPMP) offers the patient a relationship with a professional who has particular interest and expertise in the pain, which is the focus of their concern and suffering. The SPMP is able to listen, interpret and explain the predicament and concerns of the patient in a broad sociopsychobiomedical framework.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Therapeutic relationships	
2.4.1	Establish therapeutic relationships with patients, their families and carers.
2.4.2	Communicate using a patient-centred approach that encourages patient trust and autonomy, and is characterised by empathy and respect.
2.4.3	Demonstrate effective communication skills such as active listening and attending to verbal and non-verbal cues.
2.4.4	Optimise the physical environment for patient comfort, dignity, privacy, engagement and safety.
2.4.5	Recognise and negotiate challenging communication situations, including conflict and emotionally charged situations.
Obtaining relevant information	
2.4.6	Gather, prioritise and synthesise information from a variety of sources about the patient's pain experience.
2.4.7	Utilise appropriate personnel and resources to facilitate communication with patients from culturally and linguistically diverse populations.
2.4.8	Utilise appropriate personnel and resources to obtain information from patients with communication impairment.
Sharing information with patients and relevant others	
2.4.9	Facilitate informed choices with respect to treatment options.
2.4.10	Encourage shared decision-making.
2.4.11	Respect diversity and difference and the impact these have upon decision-making.
2.4.12	Provide patients with information regarding model of care, discharge and follow up.
2.4.13	Explain unanticipated complications to patients, their families and other healthcare providers.
2.4.14	Assist patients and others to identify and make use of useful information and communication technologies.
Sharing information with other professionals	
2.4.15	Demonstrate effective written and verbal communication skills tailored to audience, purpose, intent and context.
2.4.16	Comprehensively document the assessment and agreed management plan for the individual patient with pain.

2.4.17	Demonstrate skills for communicating in medico-legal settings, with administrative bodies, consumer groups and the broader community.
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## 2.5 Collaborator

As a *collaborator*, the specialist pain medicine physician (SPMP) effectively works in a healthcare team to achieve optimal patient care.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Working with health care professionals	
2.5.1	Negotiate overlapping and shared responsibilities with inter-professional healthcare providers for episodic or ongoing patient care and safety.
2.5.2	Participate constructively as a member of an interdisciplinary team.
2.5.3	Demonstrate ability to work respectfully with other agencies involved in patients' care and wellbeing.
Effective co-operation and conflict mitigation	
2.5.4	Demonstrate consideration for the professional perspectives, goals and priorities of all team members.
2.5.5	Negotiate and work with others to minimise and resolve conflict.
2.5.6	Respect and acknowledge differences, misunderstandings and limitations in oneself and other healthcare professionals that may contribute to inter-professional tension(s).
2.5.7	Participate in team debriefings and implement strategies to improve performance.
2.5.8	Facilitate comprehensive referral to another service when necessary.



## 2.6 Leader and manager

As a *leader and manager*, the specialist pain medicine physician (SPMP) has the ability to make and manage decisions about resource allocation as may apply personally, professionally and at an organisational level, to provide leadership and to contribute to the effectiveness of the healthcare system.

***By the end of training, a trainee will be able to:***

Code	Learning outcome
Work practice within the organisation	
2.6.1	Define the characteristics underpinning the provision of quality patient-centred pain management services that are safe, effective, efficient and timely.
2.6.2	Understand the financial, administrative and human resource requirements in order to manage a pain management unit or private practice.
2.6.3	Contribute to the processes of quality assurance, quality improvement and accreditation activities within their department/practice.
2.6.4	Use and adapt systems to learn from adverse events and critical incidents.
2.6.5	Identify the operational structure and their role in the pain management service/practice.
2.6.6	Demonstrate management in the allocation of resources.
2.6.7	Contribute to clinical governance forums, committees and meetings at various organisational levels as appropriate.

## 2.7 Health advocate

As a *health advocate*, the specialist pain medicine physician (SPMP) responsibly uses their expertise and influence to advance the health and wellbeing of patients, colleagues, communities and populations.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Advocacy for patients	
2.7.1	Identify social determinants that are impacting on a patient's pain experience.
2.7.2	Identify opportunities for advocacy, promotion of health and improvement in quality of life for patients with pain.
2.7.3	Advocate for access to evidence-based treatments for pain.
2.7.4	Identify circumstances where advanced care directives or plans, particularly with respect to management of pain, should be formulated by the patient and their family.
2.7.5	Promote strategies regarding the recognition of pain in patients with other conditions.
Advocacy in the community	
2.7.6	Describe ways the specialist pain medicine physician can act individually or collectively to improve health in the communities they serve.
2.7.7	Describe the role of specialist pain medicine physicians in advocating for improved resources locally, nationally and internationally in order to improve access for and management of patients with pain.
2.7.8	Promote the appropriate and safe use of controlled substances within the population.
Advocacy in the workplace	
2.7.9	Identify risks to personal, physical and mental wellbeing.
2.7.10	Actively promote safety and risk reduction in the workplace.
2.7.11	Advocate for the health, wellbeing and safety of colleagues and assist or intervene if required.

## Section Three: Essential topic areas

### 3.1 Mechanisms in the biomedical dimension of pain

This topic looks broadly at pain through the lens of mechanisms that underlie the biomedical dimension, including concepts of neuroplasticity and its applicability to nociception.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Taxonomy and definitions	
3.1.1	Describe in detail the ICD-11 taxonomy of chronic pain.
3.1.2	Critically discuss the main descriptors of pain (nociceptive, neuropathic and nociplastic) in the International Association for the Study of Pain (IASP) taxonomy.
3.1.3	Understand the historical evolution of those IASP descriptors of pain.
Pre-clinical knowledge	
3.1.4	Describe the anatomy of the peripheral and central nociceptive pathways in the somatosensory system.
3.1.5	Describe mechanisms of transduction, transmission and modulation in nociceptive pathways.
3.1.6	Outline the concepts of peripheral and central sensitisation of nociception.
3.1.7	Outline current concepts of referred pain: <ul style="list-style-type: none"> <li>• Somato-somatic.</li> <li>• Viscero-somatic.</li> <li>• Viscero-visceral.</li> <li>• Somato-visceral.</li> </ul>
3.1.8	Define the following clinical terms and describe their neurobiological bases: <ul style="list-style-type: none"> <li>• Sensory threshold.</li> <li>• Pain threshold.</li> <li>• Pain tolerance.</li> <li>• Allodynia.</li> <li>• Hyperalgesia.</li> <li>• Hyperpathia.</li> </ul>
Clinical identification of biomedical mechanisms of pain	
3.1.9	Demonstrate ability to infer nociceptive, neuropathic and nociplastic descriptors of pain on the basis of clinical examination.
3.1.10	Recognise that nociceptive, neuropathic and nociplastic pain mechanisms may occur concurrently.
3.1.11	Understand the limited utility of tools historically used for screening of neuropathic pain.
3.1.12	Explore why most neurological injury results in loss of function rather than pain.

3.1.13	<p>Describe the pain syndromes that may be associated with :</p> <ul style="list-style-type: none"> <li>• Spinal cord injury.</li> <li>• Traumatic peripheral nerve injury, including that incurred during surgery.</li> <li>• Brachial plexus injury.</li> <li>• Compression neuropathy.</li> <li>• Post-amputation injury.</li> <li>• Traumatic brain injury.</li> </ul>
3.1.14	<p>Discuss the pain syndromes that may occur in the following neurological diseases:</p> <ul style="list-style-type: none"> <li>• Stroke (particularly thalamic and lateral medullary sites).</li> <li>• Trigeminal neuralgia.</li> <li>• Parkinson's disease.</li> <li>• Multiple sclerosis.</li> <li>• Syringomyelia.</li> <li>• Peripheral neuropathies.</li> <li>• Acute herpes zoster infection and post-herpetic neuralgia.</li> <li>• Guillain-Barre syndrome.</li> <li>• Neurofibromatosis.</li> <li>• Erythromelalgia.</li> </ul>
Management of biomedical dimension of pain	
3.1.15	<p>Critically discuss the limitations of a mechanism-based approach to the pharmacological treatment of pain.</p>

## 3.2 Acute pain

The specialist pain medicine physician (SPMP) is an expert in the clinical assessment and management of pain associated with acute nociception. This role is often providing advice for complex patients, or as an integral part of an Acute Pain Service. Many patients have comorbid problems including chronic pain, opioid-tolerance, substance use disorders, psychological and medical issues, hence the management of pain associated with acute nociception requires sociopsychobiomedical assessment and an interdisciplinary approach. The SPMP must have a thorough knowledge of the efficacy, adverse effects and potential complications of the pharmacological agents, interventional techniques and equipment used in acute pain management. The SPMP is also uniquely placed to identify patients who may develop longer term problems such as persistent pain after surgery and ongoing opioid use, and to implement strategies to mitigate these risks.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Sociopsychobiomedical background	
3.2.1	Implement strategies to address social and psychological factors influencing the experience of acute pain.
3.2.2	Critically discuss the risk factors for the development of long-term adverse outcomes following an acute nociceptive event, in particular the development of persistent pain.
Acute pain services	
3.2.3	Elaborate on the roles the SPMP may play in the delivery of acute pain management.
3.2.4	Critically discuss factors that may influence the effectiveness of an acute pain service.
Clinical assessment of acute pain	
3.2.5	Critically discuss the specific challenges in assessment of acute pain, including the tools used, in various patient groups including: <ul style="list-style-type: none"> <li>• Children.</li> <li>• Adults.</li> <li>• Older persons (especially those with dementia).</li> <li>• Non-verbal/intellectually disabled.</li> <li>• Intubated/sedated.</li> <li>• Culturally and linguistically diverse.</li> </ul>
3.2.6	Appraise and respond to specific challenges posed in managing acute pain in the following clinical situations: <ul style="list-style-type: none"> <li>• Head injury.</li> <li>• Spinal cord injury.</li> <li>• Multi-trauma.</li> <li>• Crush injuries.</li> <li>• Ischaemic limbs with a risk of compartment syndrome.</li> <li>• Burns.</li> <li>• Repeated noxious interventions.</li> <li>• Chronic pain.</li> <li>• Opioid-tolerance.</li> <li>• Obesity.</li> <li>• Obstructive sleep disorder.</li> <li>• Pain associated with cancer.</li> </ul>
3.2.7	Differentiate between causes of acute cognitive dysfunction and the effects this may have on the management of the patient with acute pain, including but not limited to:

	<ul style="list-style-type: none"> <li>• Delirium</li> <li>• Withdrawal syndrome</li> <li>• Unrecognised substance use disorder</li> <li>• Poorly-controlled pain</li> <li>• Poorly-controlled mental illness</li> </ul>
Management of acute pain	
3.2.8	Appraise the evidence for management strategies intended to mitigate the development of persistent pain following an acute nociceptive event.
3.2.9	Implement safe and effective multi-modal analgesia for patients experiencing acute pain.
3.2.10	Devise a plan to transition patients experiencing acute pain to oral analgesia from patient-controlled (PCA), regional or epidural analgesia.
3.2.11	Construct a post-discharge pain management plan tailored to the needs of the individual patient.
3.2.12	<p>Critically appraise the evidence for efficacy and adverse effects in the management of acute pain with:</p> <ul style="list-style-type: none"> <li>• Conventional and atypical (multigesic) opioids.</li> <li>• Paracetamol.</li> <li>• Non-steroidal anti-inflammatory drugs.</li> </ul>
3.2.13	<p>Critically appraise the evidence for the indications, efficacy and adverse reactions of the following drugs in the management of acute pain:</p> <ul style="list-style-type: none"> <li>• NMDA-receptor antagonists.</li> <li>• Anticonvulsants, alpha-2 delta ligands.</li> <li>• Antidepressants.</li> <li>• Alpha-2 agonists.</li> <li>• Inhalational agents.</li> <li>• Calcitonin.</li> <li>• Corticosteroids.</li> <li>• Systemic lidocaine (lignocaine).</li> </ul>
3.2.14	<p>Assess and manage all adverse effects related to pharmacological therapies in acute pain management, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Opioid-induced ventilatory impairment (OIVI).</li> <li>• Excessive sedation.</li> <li>• Nausea, vomiting and constipation.</li> <li>• Pruritus.</li> <li>• Cognitive dysfunction.</li> </ul>
Patient-controlled analgesia	
3.2.15	Discuss the advantages, disadvantages and risks of delivering opioids for acute pain management via patient-controlled analgesia (PCA), continuous infusion, or intermittent boluses.
3.2.16	Describe the equipment, procedures, prescription and monitoring required when delivering opioids for acute pain management via patient-controlled analgesia (PCA) or continuous infusion.

Regional analgesia: peripheral and neuraxial	
3.2.17	Discuss indications, risk-benefit analysis, safety and complications of the following analgesic techniques: <ul style="list-style-type: none"> <li>• Major peripheral nerve analgesia.</li> <li>• Plexus analgesia (including patient-controlled regional analgesia).</li> <li>• Truncal analgesia (paravertebral, erector spinae and transversus abdominis plane).</li> <li>• Epidural analgesia (including patient-controlled epidural analgesia).</li> <li>• Intrathecal analgesia.</li> </ul>
3.2.18	Describe the pharmacokinetics and pharmacodynamics of neuraxially administered opioids, local anaesthetics and adjuvants.
3.2.19	Describe the physiological consequences of opioids and local anaesthetics administered neuraxially, alone or in combination.
3.2.20	Critically discuss the benefits and risks of using adjuvant agents for enhancement of regional neuraxial or peripheral analgesia.
3.2.21	Respond to the complications of regional analgesic and neuraxial techniques.
3.2.22	Discuss the challenges of using neuraxial or major peripheral nerve regional analgesia in patients taking anticoagulants and/or anti-platelet agents.

## 3.3 Spinal pain

Spinal pain is a major contributor to lost productivity. Low back pain and neck pain, affecting 9% and 5% respectively of the world's population, are major contributors to global non-fatal health burden (years lived with disability). Definitions and approaches to assessment and management of spinal pain vary according to the belief systems of the diverse health practitioners involved. It is essential that specialist pain medicine physicians develop a comprehensive, integrated approach to understanding the burden on society, implications for individuals and management options.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Background	
3.3.1	Discuss the public health dimensions of the problem of spinal pain, including but not limited to: <ul style="list-style-type: none"> <li>• Prevalence.</li> <li>• Demography.</li> <li>• Personal and community costs.</li> </ul>
3.3.2	Identify the application of the ICD-11 taxonomy to spinal pain syndromes.
3.3.3	Discuss the limitations of anatomically-based diagnostic terminology in spinal pain syndromes.
3.3.4	Discuss the clinical validity of the concept of a 'pain generator' in spinal structures.
3.3.5	Describe the "flag" system in relation to compensable injury.
Pre-clinical knowledge	
3.3.6	Describe the neuroanatomy and function of the spine.
3.3.7	Discuss current concepts of referred pain and radiation of pain in relation to spinal pain.
3.3.8	Critically appraise the concept of somatic referred pain with respect to <ul style="list-style-type: none"> <li>• SIJ origin pain.</li> <li>• Disc origin pain.</li> <li>• Facet joint origin pain.</li> <li>• Pain of musculoskeletal origin secondary to gait or usage abnormality.</li> </ul>
3.3.9	Critically appraise the concepts of <ul style="list-style-type: none"> <li>• Radicular pain</li> <li>• Radiculopathy</li> <li>• Somatic referred pain</li> </ul> with respect to limb girdle or limb pain associated with spinal pain.
3.3.10	Discuss factors predictive of chronicity after acute spinal pain, including but not restricted to the "flag" system.
Clinical assessment of spinal pain	
3.3.11	Identify and take appropriate action in potential specific causes of <i>acute</i> spinal pain ("red flag" conditions): <ul style="list-style-type: none"> <li>• Infection.</li> <li>• Fracture.</li> <li>• Neoplasm.</li> <li>• neurological involvement.</li> </ul>



3.3.12	Identify specific conditions associated with <i>chronic</i> spinal pain, including but not limited to: <ul style="list-style-type: none"> <li>• Diseases of bone.</li> <li>• Inflammatory disease.</li> <li>• Neoplasia.</li> </ul>
3.3.13	Recognise the clinical presentation of symptomatic central canal stenosis.
3.3.14	Critically appraise commonly used provocative clinical tests, including but not limited to: <ul style="list-style-type: none"> <li>• Lasegue/straight leg raise test.</li> <li>• Slump test.</li> <li>• FABER.</li> <li>• Quadrant test.</li> <li>• Femoral nerve stretch.</li> </ul>
3.3.15	Perform and interpret a gait analysis relevant to spinal pain.
3.3.16	Discuss the limitations of medical imaging in understanding spinal pain.
3.3.16	Demonstrate ability to interpret results of electrodiagnostic tests.
Management of spinal pain	
3.3.18	Critically discuss the evidence base for management of <i>acute</i> low back pain with or without painful radiculopathy.
3.3.19	Discuss the indications for and evidence base for efficacy of psychological therapies in chronic spinal pain, including but not limited to: <ul style="list-style-type: none"> <li>• Cognitive.</li> <li>• Behavioural.</li> <li>• Acceptance commitment.</li> </ul>
3.3.20	Discuss principles of activity prescription in the management of spinal pain.
3.3.21	Outline the indications for and evidence for the efficacy of physical therapies in chronic spinal pain.
3.3.22	Critically discuss the indications and evidence base for the efficacy of pharmacological treatments for chronic spinal pain.
3.3.23	Critically evaluate the indications and evidence base for the following procedures used for chronic spinal pain, as listed in the Curriculum for the <a href="#">Procedures Endorsement Program</a> : <ul style="list-style-type: none"> <li>• Injections (1A, 1B, 1C, 1D).</li> <li>• Radiofrequency neurotomy (2D, 2F).</li> <li>• Spinal cord stimulation (3B).</li> <li>• Intrathecal drug infusion (3C).</li> </ul>
3.3.24	Critically discuss the indications and evidence base for the efficacy and limitations of surgical interventions for chronic spinal pain, including: <ul style="list-style-type: none"> <li>• Decompression/laminectomy.</li> <li>• Discectomy.</li> <li>• Disc replacement.</li> <li>• Fusion.</li> </ul>

## 3.4 Problematic substance use

Pain and problematic substance use are often "co-morbid". The specialist pain medicine physician (SPMP) must not only be aware of the spectrum of substance use in the clinical pain community but also be equipped to identify, if possible prevent, and institute management of such problems in patients and in colleagues.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Requisite knowledge	
3.4.1	Define the following concepts: <ul style="list-style-type: none"> <li>• Tolerance.</li> <li>• Physical dependence.</li> <li>• Substance use disorder.</li> </ul>
3.4.2	Describe the evolution of the usage of the terms: <ul style="list-style-type: none"> <li>• Tolerance.</li> <li>• Physical dependence.</li> <li>• Substance use disorder.</li> <li>• Addiction.</li> </ul>
3.4.3	Discuss the current DSM-5 and ICD-11 criteria for diagnosis of substance use disorder.
3.4.4	Discuss how inappropriate prescribing behaviour may contribute to problematic substance use.
3.4.5	Describe the impact of the following substances on health and pain experience: <ul style="list-style-type: none"> <li>• Caffeine.</li> <li>• Nicotine.</li> <li>• Alcohol.</li> <li>• Cannabinoids.</li> <li>• Methamphetamine and other stimulants.</li> </ul>
3.4.6	Discuss the contribution of benzodiazepines to problematic substance use encountered in pain medicine.
Clinical presentations and risk assessment	
3.4.7	Recognise the spectrum of problematic substance use that may be co-morbid with the experience of pain.
3.4.8	Recognise aberrant drug-taking behaviours.
3.4.9	Identify intoxication and withdrawal syndromes associated with: <ul style="list-style-type: none"> <li>• Opioids.</li> <li>• Alcohol.</li> <li>• Benzodiazepines.</li> <li>• Amphetamines.</li> <li>• Cannabinoids.</li> <li>• Ketamine.</li> <li>• Gabapentinoids.</li> <li>• Atypical anti-psychotics and hypnotics.</li> </ul>
3.4.10	Identify people with or at risk of substance use disorders.
3.4.11	Identify fellow healthcare professionals with or at risk of substance use disorders. <i>See also Section 2.2 Professional role</i>

3.4.12	Outline the factors that may help in the assessment of the suitability, including risk, of patients for opioid pharmacotherapy.
3.4.13	Discuss the uses and limitations of drug testing in pain medicine practice.
Management of problematic substance use	
3.4.14	<p>Compile a comprehensive medication record including</p> <ul style="list-style-type: none"> <li>• Reconciliation of quantity prescribed and used and identification of any discordance between these.</li> <li>• Consultation with community prescribers and dispensing points.</li> <li>• Identification of pharmacodynamic interactions.</li> </ul>
3.4.15	Discuss strategies to minimise problematic substance use.
3.4.16	<p>Explain regulations regarding the prescription, restrictions and monitoring of controlled substances in the relevant jurisdiction(s) of practice.</p> <p><i>See also Section 2.2 Professional role</i></p>
3.4.17	<p>Explain the operation of:</p> <ul style="list-style-type: none"> <li>• Prescription shopping information service (Australia).</li> <li>• Real-time online monitoring of controlled drugs.</li> </ul>
3.4.18	Explain controlled opioid substitution therapy programs in the relevant jurisdiction.
3.4.19	<p>Outline principles of withdrawal management from:</p> <ul style="list-style-type: none"> <li>• Opioids.</li> <li>• Benzodiazepines.</li> <li>• Alcohol.</li> <li>• Cannabinoids.</li> <li>• Caffeine.</li> <li>• Nicotine.</li> <li>• Psychostimulants.</li> </ul>
3.4.20	Outline the principles of collaborative management of patients with problematic substance use.

## 3.5 Visceral pain

Visceral pain is common and yet poorly understood. The unique afferent neurobiological basis for visceral pain, with predilection for somatic referral and ability to provoke strong emotional responses make this topic clinically distinctive and challenging.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Background	
3.5.1	Appraise cultural and social influences on the understanding of visceral pain, including but not limited to: <ul style="list-style-type: none"> <li>• Age.</li> <li>• Gender.</li> <li>• Socioeconomic status.</li> <li>• Ethnicity.</li> <li>• Adverse childhood experience.</li> </ul>
3.5.2	Discuss the taxonomy of functional gastrointestinal disorders and chronic pelvic pain syndromes, in particular the trend to move away from end-organ nomenclature.
Preclinical Knowledge	
3.5.3	Describe the innervation of the viscera within the: <ul style="list-style-type: none"> <li>• Thorax</li> <li>• Abdomen</li> <li>• Pelvis</li> </ul> with particular reference to: <ul style="list-style-type: none"> <li>• Stellate ganglion.</li> <li>• Splanchnic nerves.</li> <li>• Coeliac ganglion.</li> <li>• Hypogastric plexus.</li> <li>• Ganglion impar.</li> <li>• Pudendal nerve.</li> </ul>
3.5.4	Outline current concepts of: <ul style="list-style-type: none"> <li>• Visceral nociception.</li> <li>• Visceral hyperalgesia.</li> <li>• Referred pain               <ul style="list-style-type: none"> <li>○ Viscero-somatic.</li> <li>○ Viscero-visceral.</li> <li>○ Somato-somatic.</li> <li>○ Somato-visceral.</li> </ul> </li> </ul>
3.5.5	Compare and contrast visceral and somatic pain.
3.5.6	Discuss the “brain-gut axis” and the neurohumoural functions of the gut.
Clinical assessment of visceral pain	
3.5.7	Recognise clinical features that suggest painful visceral dysfunction.
3.5.8	Distinguish clinically between: <ul style="list-style-type: none"> <li>• Acute visceral nociception.</li> <li>• Visceral hyperalgesia.</li> <li>• Referred pain with and without hyperalgesia.</li> </ul>

3.5.9	<p>Differentiate clinically between chronic visceral pain and:</p> <ul style="list-style-type: none"> <li>• Chronic musculoskeletal pain</li> <li>• Chronic neuropathic pain</li> <li>• Chronic post-surgical pain</li> </ul> <p>in the thorax, abdomen and pelvis.</p>
Management of visceral pain	
3.5.10	<p>Discuss the role of tailored therapies in visceral pain, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Pelvic floor relaxation.</li> <li>• Exogenous gonadal hormones in the treatment of pelvic pain.</li> <li>• Probiotics in irritable bowel syndrome.</li> <li>• Dietary modifications in irritable bowel syndrome.</li> </ul>
3.5.11	<p>Demonstrate a patient-centred approach to pharmacotherapy for chronic visceral pain conditions.</p>
3.5.12	<p>Appraise the evidence base for the indications, effectiveness and adverse effects of invasive therapies used for chronic visceral pain.</p>

## 3.6 Pain related to cancer

Thirty per cent of patients with cancer will have pain at diagnosis. Seventy per cent will have pain by the time their disease is advanced. Yet the outcomes for management of cancer pain are often poor. Management of pain in the presence of a terminal illness is different from the management of acute or chronic pain, but uses techniques from both fields. This essential topic area also addresses chronic pain experienced by patients arising out of management of their cancer.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Background	
3.6.1	Discuss social, cultural and spiritual influences on the experience of cancer and of cancer-related pain.
3.6.2	Articulate the variability of cultural, ethnic and societal attitudes towards death and dying in the communities in which they work.
3.6.3	Recognise the problems faced by cancer survivors who have persistent pain.
3.6.4	Compare and contrast the assessment and management of persons with cancer pain and those with chronic non-cancer pain.
Preclinical knowledge	
3.6.5	Discuss the biological mechanisms contributing to the experience of pain: <ul style="list-style-type: none"> <li>• Arising from a solid viscus.</li> <li>• Arising from a hollow viscus.</li> <li>• Directly related to cancer (tumour invasion, compression, metastases etc).</li> <li>• Indirectly related to cancer (pressure areas, acute Herpes zoster infection).</li> <li>• Following chemotherapy, with particular reference to               <ul style="list-style-type: none"> <li>○ Peripheral neuropathy.</li> <li>○ Mucositis.</li> </ul> </li> <li>• Following               <ul style="list-style-type: none"> <li>○ Radiotherapy.</li> <li>○ Surgery.</li> <li>○ Hormone therapy.</li> <li>○ Immunotherapy.</li> </ul> </li> </ul>
3.6.6	Recognise interactions of medications, particularly the anti-cancer drugs, with the cytochrome P450 enzyme system and how this might influence analgesic treatments.
3.6.7	Discuss the potential analgesic benefits of cancer-modifying treatments such as: <ul style="list-style-type: none"> <li>• Chemotherapy.</li> <li>• Radiotherapy.</li> <li>• Hormone therapy.</li> <li>• Immunotherapy.</li> <li>• Surgery.</li> </ul>
Clinical assessment of cancer pain	
3.6.8	Define and distinguish between incident pain and incompletely relieved persistent pain.
3.6.9	Apply a mechanism-based approach to identifying the origins and contributing factors to pain in cancer patients.
3.6.10	Recognise the clinical presentations of <ul style="list-style-type: none"> <li>• Mucositis</li> <li>• Peripheral neuropathy</li> </ul> that might be induced by cancer treatments.

3.6.11	<p>Discuss the presentation of oncological emergencies in the patient with cancer-related pain, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Acute spinal cord compression.</li> <li>• Life-threatening increased intracranial pressure.</li> <li>• Acute bowel obstruction and perforation of a viscus.</li> <li>• Hypercalcaemia.</li> <li>• Long bone fracture.</li> </ul>
Management of cancer-associated pain	
3.6.12	<p>Recognise the essential role of close liaison with other teams, specifically from oncology, radiation oncology and palliative care.</p>
3.6.13	<p>Discuss the management of acute pain in patients with cancer, including in the context of:</p> <ul style="list-style-type: none"> <li>• Diagnostic interventions.</li> <li>• Therapeutic interventions.</li> <li>• Surgery.</li> <li>• Radiotherapy.</li> <li>• Chemotherapy.</li> </ul>
3.6.14	<p>Discuss management of pain attributable to cancer treatments including but not limited to:</p> <ul style="list-style-type: none"> <li>• Chemotherapy.</li> <li>• Radiotherapy.</li> <li>• Surgery.</li> <li>• Hormone therapy.</li> </ul>
3.6.15	<p>Discuss management of mucositis, with particular reference to children.</p>
3.6.16	<p>Critically discuss the use of other adjuvant analgesics in cancer pain including but not limited to:</p> <ul style="list-style-type: none"> <li>• Bisphosphonates.</li> <li>• Denosumab.</li> <li>• Corticosteroids.</li> <li>• Ketamine.</li> </ul>
3.6.17	<p>Discuss the role of pain medicine procedures in the management of cancer pain, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Neuraxial and intracerebroventricular administration of medications.</li> <li>• Neurolytic blocks, with particular reference to: <ul style="list-style-type: none"> <li>○ Saddle block.</li> <li>○ Coeliac plexus block.</li> </ul> </li> <li>• Surgical procedures <ul style="list-style-type: none"> <li>○ Cordotomy.</li> </ul> </li> </ul>
3.6.18	<p>Critically discuss the use of complementary and alternative medicines in patients with cancer pain.</p>
3.6.19	<p>Discuss the evidence base for cannabinoids in the management of pain and other symptoms in patients with terminal disease.</p>

## 3.7 Headache and orofacial pain

Headache, facial and dental pain are among the most very common pain disorders. Headache is an underestimated and undertreated problem world-wide. Not only does almost half of the adult population have headache at least once a year but also headache disorders are associated with much personal and societal disability and cost. Only a minority of people with headache and facial pain disorders are appropriately diagnosed: the prevalence of migraine exceeds 10%, while medication overuse headache may affect up to 5% of some populations. Careful clinical assessment of headache and orofacial pain disorders based on an understanding of taxonomy and of pain mechanisms can lead to more specific diagnosis and rational management.

**By the end of training, a trainee will be able to:**

Code	Learning outcomes
Background	
3.7.1	Describe the ICD-11 classification of orofacial pain, the ICDH classification of headache and the ICOP classification of orofacial pain.
3.7.2	Appraise social and cultural influences on the experience of headache.
3.7.3	Elaborate on the interaction between psychiatric and substance use factors and headache.
Assessment of headache and orofacial pain	
3.7.4	Perform a cranial nerve examination.
3.7.5	Perform an examination of the cervical spine.
3.7.6	Outline causes of headache that may be overlooked on initial assessment including: <ul style="list-style-type: none"> <li>• Pathology in the eyes and ears.</li> <li>• Space-occupying lesions.</li> <li>• Vascular disease.</li> </ul>
3.7.7	Describe the pathophysiology and clinical features of the following primary headache syndromes: <ul style="list-style-type: none"> <li>• Migraine.</li> <li>• Tension-type headache.</li> <li>• Cluster headache.</li> </ul>
3.7.8	Describe the pathophysiology and clinical features of the following <i>secondary</i> headache syndromes: <ul style="list-style-type: none"> <li>• Medication-related headache.</li> <li>• Post-traumatic headache.</li> <li>• Headache associated with disorders of intracranial pressure.</li> <li>• Headache referred from the cervical spine.</li> <li>• Headache associated with sinus pathology.</li> </ul>
3.7.9	Describe the pathophysiology and clinical features of: <ul style="list-style-type: none"> <li>• Trigeminal neuralgia.</li> <li>• Other cranial neuralgias.</li> <li>• Post-herpetic neuralgia.</li> <li>• “Burning mouth” syndrome.</li> <li>• Temporomandibular joint disorders.</li> <li>• Idiopathic facial pain.</li> </ul>
3.7.10	Critically discuss the concept of “atypical facial pain” and its implications for assessment and management.



Management of headache and orofacial pain	
3.7.11	Integrate identified psychosocial issues into the management plan for patients with headache or orofacial pain.
3.7.12	Outline the evidence base for non-drug interventions in headache syndromes.
3.7.13	Outline the evidence base for abortive and prophylactic pharmacological treatment of episodic migraine.
3.7.14	Discuss the rationale and evidence base for the use of the following in the management of chronic headache : <ul style="list-style-type: none"> <li>• Botulinum toxin.</li> <li>• Occipital nerve stimulation.</li> <li>• Immunological therapy.</li> </ul>
3.7.15	Critically appraise management of medication-overuse headache.
3.7.16	Discuss the rationale and evidence base for pharmacological and surgical treatments for trigeminal neuralgia.

## 3.8 Complex regional pain syndrome (CRPS)

Complex regional pain syndromes (CRPS) are enigmatic challenges to understanding and management. The specialist pain medicine physician (SPMP) must have expertise in the presentation, diagnosis and differential diagnosis of these conditions. Insight into their pathophysiology and natural history, and application of evidence-based approaches to prevention and treatment are essential.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Background	
3.8.1	Outline the historical development of the construct of CRPS.
3.8.2	Compare and contrast the different taxonomies for CRPS, including IASP and ICD-11.
3.8.3	Appraise the psychosocial dimension of CRPS and the implications for treatment.
3.8.4	Discuss proposed pathophysiological mechanisms of CRPS types I and II.
Clinical identification and assessment of CRPS	
3.8.5	Compare and contrast adult and paediatric CRPS in terms of presentation, disease course, and prognosis.
3.8.6	Recognise the differences in terms of prognosis and management between early and late presentations of CRPS.
3.8.7	Generate a differential diagnosis for a patient with presumed CRPS.
Management of CRPS	
3.8.8	Critically discuss the rationale and evidence for the following interventions in patients with CRPS: <ul style="list-style-type: none"> <li>• Desensitisation.</li> <li>• Graded motor imagery.</li> <li>• Procedures.</li> <li>• Surgery.</li> <li>• Pharmacotherapy.</li> </ul>
3.8.9	Critically appraise the evidence for preventative strategies for CRPS.

## 3.9 Chronic widespread pain

Specialist pain medicine physicians will be asked to assess and manage patients with pain syndromes that have challenged understanding over time, often perpetuating a mind-body dualistic approach or fostering strongly held but scientifically unsupported beliefs. Recent advances in knowledge underpin a sociopsychobiomedical approach to these problems. This study unit focusses on chronic widespread pain and involves integration with other parts of the curriculum.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Background	
3.9.1	Discuss cultural and social influences on the evolution and understanding of the following pain conditions: <ul style="list-style-type: none"> <li>• “Railway spine”.</li> <li>• “Writers’ cramp”.</li> <li>• Myofascial pain syndrome.</li> <li>• Fibromyalgia syndrome.</li> <li>• Whiplash.</li> </ul>
3.9.2	Understand the differences between symptom cluster, syndrome and meta-syndrome, with particular reference to chronic widespread pain.
3.9.3	Outline the heterogeneity of the clinical phenotype of “chronic widespread pain”.
3.9.4	Compare and contrast neurobiological and psychobiological understandings of chronic widespread pain, including but not limited to: <ul style="list-style-type: none"> <li>• Central sensitisation of nociception.</li> <li>• Affective spectrum disorders.</li> </ul>
Applied foundation knowledge	
3.9.5	Critically discuss “fibromyalgia syndrome” as an example of: <ol style="list-style-type: none"> <li>a) Chronic primary pain (as a taxonomic entity).</li> <li>b) Nociplastic pain (as an example of this descriptor of mechanism).</li> <li>c) Central sensitisation of nociception (as an example of a pathophysiological process).</li> <li>d) An affective symptom disorder (as a psychological construct).</li> <li>e) A syndrome (as a clinical entity).</li> </ol>
3.9.6	Discuss the evolution of the concept of somatic symptom disorder.
3.9.7	Discuss the DSM-V diagnostic category of somatic symptom and related disorders, including but not limited to: <ul style="list-style-type: none"> <li>• Somatic symptom disorder.</li> <li>• Illness anxiety disorder.</li> <li>• Conversion disorder (functional neurological symptom disorder).</li> <li>• Psychological factors affecting other medical conditions.</li> <li>• Factitious disorder.</li> </ul>
Assessment of widespread pain	
3.9.8	Demonstrate application of formulation required in patients with chronic widespread pain.

Management of widespread pain	
3.9.9	Discuss the unique role of the SPMP in understanding, explaining and managing chronic widespread pain to patients, their families and colleagues.

## Section Four: Optional topic areas

### 4.1 Persistent Pelvic Pain

Like other chronic pain conditions, in persistent pelvic pain (PPP) there is: pain from end organs (pelvic organs); the musculoskeletal response to pain; central sensitisation; and the psychological sequelae of the pain condition. In addition, PPP presents personal challenges above and beyond those suffered by others with chronic pain. Patients may be reluctant to present to health care providers as their pain has embarrassing gender, fertility and sexual overtones.

The specialist pain medicine physician (SPMP) needs a sound understanding of the social context and the psychological impact of PPP in order to develop a comprehensive management plan. Learning outcomes are an extension of those in the essential topic areas (ETA), especially, ETA 5 on Visceral Pain.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Background	
4.1.1	Describe epidemiology and natural history of pelvic pain in women and men.
4.1.2	Discuss the psychological sequelae of persistent pelvic pain and the implications it may have on medical management.
4.1.3	Be cognisant that persistent pelvic pain usually presents with multiple issues and is likely to have four components: <ul style="list-style-type: none"> <li>• Pelvic organ contributions or causes of nociception.</li> <li>• Somatic nociception.</li> <li>• Peripheral and central sensitisation, cross sensitisation between organs.</li> <li>• Patient's adaptation to chronic pain.</li> </ul>
4.1.4	Recognise the lifestyle, posture, exercise and obstetric issues that predispose to the development of pelvic pain.
4.1.5	Identify nociception involving the pelvic floor muscles and ligaments, their presenting symptoms, examination findings and management options.
4.1.6	Discuss in detail the concept of neural plasticity, i.e. sensitisation or neuropathic mechanisms in persistent pelvic pain.
4.1.7	Outline the mechanisms of pain in: <ul style="list-style-type: none"> <li>• Surgical nerve injury, e.g. ilioinguinal/hypogastric, obturator, pudendal.</li> <li>• Irritable bowel syndrome.</li> <li>• Painful Bladder Syndrome.</li> <li>• Pudendal Neuralgia.</li> </ul>
4.1.8	Describe gender specific mechanisms in pain, including the role of sex hormones.
4.1.9	Describe the mechanisms by which menstrual suppression may have an effect on pain control.

4.1.10	Outline the mechanisms of pain in: <ul style="list-style-type: none"> <li>• Dysmenorrhoea.</li> <li>• Endometriosis.</li> <li>• Vulvodynia.</li> <li>• Menstrual migraine.</li> <li>• Chronic Candidiasis.</li> </ul>
Assessment	
4.1.11	Elicit a history from the patient with pelvic pain to evaluate the pain and its impact on physical and social function, including: <ul style="list-style-type: none"> <li>• Bladder function.</li> <li>• Bowel function including 'bloating'.</li> <li>• Food intolerances.</li> <li>• Surgical history.</li> <li>• Cognitive factors such as fear-avoidance beliefs and coping styles.</li> <li>• Precipitating neural injury.</li> <li>• Pain or relief of pain through exercise and activity.</li> <li>• Sexual history.</li> <li>• Abuse history.</li> </ul>
4.1.12	Distinguish clinically conditions that are suggestive of: <ul style="list-style-type: none"> <li>• Inflammatory and neuropathic sources of pelvic pain.</li> <li>• Nociception from pelvic muscles including pubococcygeus and obturator internus.</li> <li>• Central sensitisation.</li> <li>• Symptoms and signs that reflect convergence.</li> </ul>
4.1.13	Elicit the presence of pelvic muscle allodynia by both history and appropriate examination.
4.1.14	Describe the possible causes of acute 'flares' of pain in the context of persistent pelvic pain.
4.1.15	Evaluate the relationship between pain and the menstrual cycle, including the effect of hormonal changes.
4.1.16	Perform a thorough physical examination to exclude infection and diagnose the cause of pelvic pain.
Management of Pelvic Pain	
4.1.17	Discuss treatment options for <ul style="list-style-type: none"> <li>• bladder symptoms of frequency, nocturia or urgency.</li> <li>• irritable bowel and food intolerance.</li> <li>• pudendal neuralgia.</li> </ul>
4.1.18	Discuss the management of pelvic muscle pain, including the contribution of obturator internus, pubococcygeus, puborectalis, piriformis, mechanical allodynia and the role of pelvic physiotherapy.
4.1.19	Describe the role of psychological measures in the management of pelvic pain.

4.1.20	Describe the role of neuropathic medications and pharmacological combinations of therapy, including but not limited to: <ul style="list-style-type: none"> <li>• Amitriptyline.</li> <li>• Anticonvulsants including pregabalin and gabapentin.</li> <li>• SNRI medications including duloxetine.</li> </ul>
4.1.21	Describe gender specific risks and consequences of long term pharmacotherapy including hormonal therapies used in the treatment of pelvic pain.
4.1.22	List the allied health professionals that may be involved in the care of persistent pelvic pain and outline their respective contributions to management.
4.1.23	Discuss the importance of psychological support strategies in conjunction with other treatment.
4.1.24	Explain the role of multidisciplinary management, i.e. combinations of pharmacotherapy and non-pharmacological treatments in the management of persistent pelvic pain.
4.1.25	Discuss specific treatment options for <ul style="list-style-type: none"> <li>• Dysmenorrhea.</li> <li>• Endometriosis.</li> <li>• Vulvovaginal irritation.</li> <li>• Chronic candidiasis.</li> <li>• Menstrual migraine.</li> </ul>
4.1.26	Describe the indications, effectiveness and adverse effects of pharmacotherapies used to suppress ovarian and uterine function.
4.1.27	Discuss the evidence base for the indications, effectiveness and adverse effects of surgical interventions as a treatment for pelvic pain, including but not limited to laparoscopy and hysterectomy.
4.1.28	Outline the treatment options available for women with persistent pelvic pain who are trying to conceive.
4.1.29	Critically discuss the treatment options for management of persistent pelvic pain during pregnancy, the postpartum period and breastfeeding.

## 4.2 Consultation Liaison Psychiatry

Patients with mental health disorders and experiencing pain may face challenges above and beyond others suffering with chronic pain. These patients may have difficulty accessing and engaging in appropriate care. The specialist pain medicine physician (SPMP) needs a sound understanding of the interrelationship between personality factors, psychological syndromes, psychiatric disorders and the experience of pain. They also require the skills to provide brief psychotherapy and manage psychiatric emergencies in the pain setting.

**By the end of training, a trainee will be able to:**

Code	Learning outcome
Background	
4.2.1	Outline the nature and extent of psychiatric morbidity commonly encountered in clinical pain populations.
4.2.2	Demonstrate a sophisticated understanding of the sociopsychobiomedical framework for clinical pain disorders.
4.2.3	Critically discuss the concept of 'abnormal illness behaviour'.
4.2.4	Describe the core symptoms and course of a range of psychological syndromes and psychiatric disorders, including but not limited to: <ul style="list-style-type: none"> <li>• Depressive disorders.</li> <li>• Anxiety disorders.</li> <li>• Trauma and Stressor Related disorders.</li> <li>• Schizophrenia Spectrum &amp; Other Psychotic disorders.</li> <li>• Personality disorders.</li> <li>• Somatic symptom and related disorders.</li> <li>• Neurocognitive Disorders, including delirium and dementia.</li> </ul>
4.2.5	Outline the influence of personality factors on the experience of illness and pain.
4.2.6	Explain the psychological and psychiatric effects of medical and surgical treatments, medications and toxins as they apply to pain medicine.
4.2.7	Describe common drug toxicity syndrome including serotonin syndrome and neuroleptic malignant syndrome.
4.2.8	Discuss relevant jurisdictional legislation relating to mental health, guardianship/substitute consent and child safety legislation.
Assessment	
4.2.9	Perform a psychiatric evaluation of patients with pain.
4.2.10	Undertake a risk assessment (risk to self, others, vulnerability risks) in in-patient and out-patient settings.
4.2.11	Identify factors that may lead to refusal of treatment, determine capacity to refuse treatment, and implement strategies to help patients make choices that are in their best interests.
4.2.12	Discuss the impact of older person's mental health, including delirium and dementias, on pain presentation. Undertake a risk assessment (risk to self, others, vulnerability risks) in medical, surgical and obstetric wards.



4.2.13	Differentiate among depressive syndromes and disorders such as major depression, adjustment disorder, demoralisation, grief and bereavement and recognise each in the pain medicine setting.
4.2.14	Differentiate acute stress reactions and post-traumatic stress disorders and recognise each in the pain medicine setting.
4.2.15	Assess and safely manage patients with overwhelming distress, suicidality and extreme agitation.
4.2.16	Recognise the impact on staff of distressing situations, and the ability to evaluate the effect on staff behaviour and to modulate its effects where necessary.
4.2.17	Recognise impact of childhood trauma on personality development, complex post trauma states, psychiatric morbidity and chronic pain states.
4.2.18	Outline the determinants of somatisation.
4.2.19	Assess and formulate somatic symptoms in terms of their impact on function and in relation to premorbid variables.
Management	
4.2.20	Describe the indications for and use of psychotropic medications in patients with pain.
4.2.21	Discuss the use of psychotropic medication, including the impact of unwanted effects in the presence of other medications and in the context of pain medicine.
4.2.22	Develop a management plan for patients with self-harm and suicidal ideation.
4.2.23	Apply a range of clinical interventions for patients, including crisis intervention, brief psychotherapy and psychopharmacotherapy.
4.2.24	Modify basic psychodynamic, cognitive behavioural and supportive psychotherapy in the presence of medical illness and pain, with special attention to cognitive limitations.
4.2.25	Identify and manage transference and countertransference issues that arise between patients with psychiatric disorders and/or interpersonal conflicts and their caregivers in pain medicine settings.

### 4.3 Paediatric Pain Medicine

Children are a unique patient group. Young children, neonates and infants in particular, have significant anatomical, physiological, psychological and social differences compared with adults. Developmental issues influence all aspects of the child's pain experience, including biological responses, language and communication, comprehension, and choice and effectiveness of pain management techniques. The long-term effects of repeated acute pain and the impact of analgesic drugs on the developing nervous system are issues of considerable concern that must also be taken into account when developing a pain management strategy for a child. The development of bidirectional relationships with other health professionals is key to effective long term management.

By the end of training, a trainee will be able to:

#### Background

4.3.1	Explain the developmental neurobiology of pain, including embryological considerations.
4.3.2	Outline the implications of genetic predisposition in the development of pain in children.
4.3.3	Explain the transition of acute to chronic pain as it applies to pain in children.
4.3.4	Identify the common pain syndromes that occur in childhood.
4.3.5	Describe the long term consequences of pain in infancy and childhood, including the effects of pain related to: <ul style="list-style-type: none"> <li>• Neonatal intensive care.</li> <li>• Paediatric intensive care.</li> </ul>
4.3.6	Explain the association between painful childhood conditions and the development of persistent pain in adulthood.
4.3.7	Outline the association between childhood abuse (physical, emotional and sexual) and pain in adolescence or adulthood.
4.3.8	Describe the evidence base for pharmacological treatment of pain in children, in particular, the implications of applying adult data for paediatric purposes.
4.3.9	Explain the ethical and legal aspects of prescribing for children.
4.3.10	Demonstrate an understanding of the ethical issues concerning the conduct of drug trials in children.
4.3.11	Describe the organisational aspects of children's pain services including: <ul style="list-style-type: none"> <li>• Acute (postoperative, medical and procedural pain).</li> <li>• Cancer pain and palliative medicine.</li> <li>• Chronic pain.</li> </ul>
4.3.12	Demonstrate an understanding of Child Protection issues, including reporting responsibilities and the systems in place to manage such issues.
<b>Assessment</b>	
4.3.13	Build rapport and trust with children and their families.
4.3.14	Demonstrate use of developmentally appropriate pain assessment tools.

4.3.15	<p>Explain the developmental, contextual and practical considerations in acute, procedural and chronic pain assessment in:</p> <ul style="list-style-type: none"> <li>• Infants, including the premature neonate.</li> <li>• Children.</li> <li>• Adolescents.</li> <li>• The child with neurodevelopmental delay, including autism spectrum disorders.</li> <li>• Congenital disorders (e.g. deafness, visual impairment, Epidermolysis Bullosa).</li> </ul>
4.3.16	<p>Elicit a comprehensive history to identify:</p> <ul style="list-style-type: none"> <li>• Psychiatric issues including but not limited to: anxiety, depression, conversion, somatisation.</li> <li>• adverse consequences of pain, including maintaining and reinforcing factors.</li> <li>• Avoidance behaviours - primary, secondary and tertiary gain.</li> <li>• Sleep problems.</li> </ul>
4.3.17	<p>Compare and contrast the differences between children and adults in the</p> <ul style="list-style-type: none"> <li>• Presentation</li> <li>• Differential diagnosis</li> <li>• Classification</li> </ul> <p>of pain in medical conditions, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Complex Regional Pain Syndrome (CRPS).</li> <li>• Chronic widespread pain.</li> <li>• Congenital conditions, including Epidermolysis Bullosa.</li> <li>• Guillain-Barre syndrome.</li> <li>• Headache.</li> <li>• Chronic abdominal pain</li> <li>• Musculoskeletal conditions, including rheumatoid disease.</li> </ul>
4.3.18	<p>Compare and contrast differences in presentation of pain related to cancer and cancer treatment between adults and children.</p>
Management	
4.3.19	<p>Outline the key differences in managing pain in infants, children and adolescents, as opposed to adult patients.</p>
4.3.20	<p>Demonstrate innovative, developmentally appropriate ways of explaining pain that engage children.</p>
4.3.21	<p>Identify maladaptive approaches used by carers and health professionals that may reinforce a child's pain behaviours.</p>
4.3.22	<p>Identify strategies that may be used by carers to promote supported self-management skills in children and adolescents.</p>
4.3.23	<p>Describe the role of each health professional in the management of pain in infants, children and adolescents, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Physiotherapists.</li> <li>• Psychologists.</li> <li>• Occupational therapists.</li> <li>• Social workers.</li> <li>• Child life therapists.</li> <li>• Music therapists.</li> <li>• Art therapists.</li> <li>• Family therapists.</li> </ul>

4.3.24	<p>Discuss the indications for, and evidence base of, specific physiotherapy modalities used in the context of paediatric pain management, including but not limited to:</p> <ul style="list-style-type: none"> <li>• TENS.</li> <li>• Graded motor imagery.</li> </ul>
4.3.25	<p>Discuss the indications for, and evidence base of, the following psychological interventions used in paediatric pain management:</p> <ul style="list-style-type: none"> <li>• Cognitive behavioural therapy (CBT).</li> <li>• Acceptance and Commitment Therapy (ACT).</li> </ul>
4.3.26	<p>Explain the role of psychiatry, including indications and goals of referral, in the management of pain in children.</p>
4.3.27	<p>Describe the structure of a typical inpatient rehabilitation program for paediatric patients.</p>
4.3.28	<p>Describe the evidence-base for pharmacological treatment of acute and chronic pain in infants, children and adolescents.</p>
4.3.29	<p>Describe techniques used to assist in the management of procedural pain experienced by paediatric patients, including:</p> <ul style="list-style-type: none"> <li>• Physical (e.g. comfort positioning).</li> <li>• Psychological (distraction, language used).</li> <li>• Topical analgesia (eg EMLA, other local anaesthetics).</li> <li>• Sucrose.</li> <li>• Pharmacological sedation (oral, intravenous agents, Nitrous Oxide).</li> </ul>
4.3.30	<p>Describe appropriate and mandatory safeguards for managing paediatric sedation.</p>
4.3.31	<p>Describe the prescription, set up, monitoring and safe guards relevant to pharmacological management of acute and procedural pain in paediatric patients of all ages including:</p> <ul style="list-style-type: none"> <li>• PCA/NCA.</li> <li>• Parent controlled analgesia.</li> <li>• Epidural and caudal analgesia.</li> <li>• Intravenous therapies, including lignocaine and ketamine.</li> <li>• Intrathecal opioids.</li> </ul>
4.3.32	<p>Demonstrate an understanding of pain management strategies specific for children and adolescents in medical conditions, including but not limited to:</p> <ul style="list-style-type: none"> <li>• CRPS.</li> <li>• Chronic widespread pain.</li> <li>• Congenital conditions (including Epidermolysis Bullosa).</li> <li>• Guillain-Barre syndrome.</li> <li>• Headache.</li> <li>• Chronic abdominal pain.</li> <li>• Musculoskeletal conditions (including rheumatoid disease).</li> </ul>
4.3.33	<p>Effectively manage the child with cancer pain-related complications, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Acute pain crisis.</li> <li>• Bone pain.</li> <li>• Neutropaenia with mucositis.</li> <li>• Peripheral neuropathy.</li> </ul>
4.3.34	<p>Outline the pain and symptom management of the child in palliative care.</p>

4.3.35	<p>Demonstrate effective communication skills and engagement with:</p> <ul style="list-style-type: none"> <li>• Children.</li> <li>• Families.</li> <li>• Other healthcare professionals.</li> <li>• Social services.</li> <li>• Education institutions.</li> <li>• Other community paediatric services.</li> </ul>
4.3.36	<p>Demonstrate effective collaboration with other paediatric health professionals and social, educational and community paediatric services.</p>
4.3.37	<p>Demonstrate a leadership role in children’s pain management, including multidisciplinary management of chronic and cancer pain.</p>
4.3.38	<p>Initiate and take an appropriate role in child protection processes.</p>
4.3.39	<p>Recognise the challenging issues associated with transition from paediatric to adult health and social services, and manage accordingly.</p>

## 4.4 Procedures in Pain Medicine

Interventional procedures may temporarily modulate the experience of pain in either palliative or non-palliative settings. They are not curative. In the non-palliative context they are intended to facilitate physical and psychological rehabilitation.

In addition to performing selected procedures under appropriate supervision, trainees should observe as broad a range of techniques as possible.

Note: trainees who are undertaking the Procedures Endorsement Program should refer to the [Procedures Endorsement Program curriculum](#)

***By the end of training, a trainee will be able to:***

Code	Learning outcome
Background	
4.4.1	Discuss the potential role interventional procedures may have for selected patients with chronic pain.
4.4.2	Discuss the potential harm of interventional procedures in patients focused on the passive receipt of medical treatments.
4.4.3	Describe anatomy relevant to interventional procedures.
4.4.4	Outline the physical principles of radiological, magnetic resonance and ultrasound imaging techniques used to identify relevant anatomy as it relates to interventional procedures.
4.4.5	Outline the elements of informed consent for an interventional procedure, including but not limited to: <ul style="list-style-type: none"> <li>• Risks vs benefits.</li> <li>• Potential complications.</li> <li>• Alternatives to the procedure.</li> </ul>
4.4.6	Discuss the guidelines for safe sedation for interventional procedures as described in ANZCA professional document PS09.
4.4.7	Describe the legal reporting requirements for interventional procedures.
4.4.8	Critically evaluate the evidence for the procedures listed in 4.4.17.
4.4.9	Discuss the use of blinded procedures (sham v active and comparative local anaesthetic blocks) to evaluate the placebo component of any response.
Assessment	
4.4.10	Identify from the history patient factors that are supportive or contrary to provision of interventional procedures.
4.4.11	Identify psychosocial risk factors (including depression, distress and high opioid intake) that predict poor outcome from interventional procedures.
4.4.12	Conduct a physical examination and interpret findings that may influence patient selection for an interventional procedure.
4.4.13	Interpret investigations in the context of patient selection for interventional procedures.
Management	
4.4.14	Discuss the staffing requirements of an interventional pain medicine suite.
4.4.15	Describe the options for providing analgesia and/or anxiolysis for patients undergoing interventional procedures.

4.4.16	<p>Outline the requirements for conducting an interventional procedure safely, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Aseptic technique.</li> <li>• Universal precautions.</li> <li>• Radiation safety .</li> <li>• Appropriate levels of support and assistance.</li> </ul>
4.4.17	<p>Perform with appropriate supervision the following types of interventional procedures :</p> <ul style="list-style-type: none"> <li>• Peripheral nerve block.</li> <li>• Plexus block.</li> <li>• Sympathetic block.</li> <li>• Radiofrequency ablation.</li> <li>• Epidural/intrathecal block/infusion.</li> <li>• Implantable devices.</li> </ul>
4.4.18	<p>Develop and implement a post procedure care plan, including the management of any associated complications.</p>
4.4.19	<p>Participate in regular clinical audit of interventional practice.</p>

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