# Fellowship of the Indian Academy of Pain Medicine – Exit Examination

## Guidance Notes & Regulations

**June 2018**

Indian Academy of Pain Medicine

IAPM

The Academy of the Indian Society for Study of Pain

## INTRODUCTION

These regulations govern the content and conduct of the examinations leading to the award of the Fellowship of the Indian Academy of Pain Medicine – the academy of the Indian Society for the Study of Pain (ISSP).

### They specify :

- Eligibility requirements ☐
- Application procedures ☐
- Limitations on the number of attempts ☐
- Exam structure and marking systems
- The requirement for guidance in the event of failure ☐
- Procedures for making representations, complaints and appeals
- Policies on electronic devices, mobile phones and smart watches, misconduct, and disability requests.☐

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# CONTENT

# DEFINITIONS

**1.1**

For the purpose of these regulations a trainee is a medical doctor who has received training approved by the Indian Academy of Pain Medicine (IAPM). This includes

**1.1.1**

trainee of the IAPM who is nearing completion of his one-year training at an IAPM accredited training centre

**1.1.2**

trainee who has completed an Indian University accredited training programme (e.g. BHU, SGPGI, MUHS) of minimum one-year duration, passed the exit exam and currently practicing in India.

**1.1.3**

trainee who has completed a recognised, structured pain training programme overseas of minimum one-year duration, passed the exit exam and currently practicing in India

**1.1.4**

trainee who has completed a private fellowship of minimum one-year duration in India, passed the exit exam and currently practicing in India

**1.2**

For the purpose of these regulations approved training, **in addition**, includes

**1.2.1**

undergraduate degree that is registered with the Medical Council of India (MCI)

**1.2.2**

postgraduate degree in Anaesthesiology – M.D. or D.N.B. or D.A. - that is registered with the MCI

**1.3**

Senior pain physician applying for the examinations should satisfy the following criteria

**1.3.1**

Held membership of ISSP for a minimum of five years

**1.3.2**

Have minimum of two publications related to Pain Medicine

**1.3.3**

Submit a letter of recommendation from a Governing Council member of ISSP or IAPM

**1.3.4**

Hold a postgraduate degree in anaesthesiology that is registered with MCI

**1.4**

GENERAL. The words and phrases in the left hand column below shall have the meanings assigned to them in the right hand column:

| | |
|---|---|
| Council | : Governing Council of IAPM |
| Candidate | : Examinee appearing for FIAPM |
| Chair | : Chair of Examination Committee of IAPM |
| Academy | : IAPM |
| Society | : ISSP |
| Registrar | : Registrar of IAPM |
| Fellow | : Fellow of IAPM |

## 2 COMMENCEMENT AND REVOCATION

**2.1**

These regulations shall come into force on 1st June 2018 and will apply to examinations commencing on or after that date.

**2.2**

These regulations are agreed by the Examination Committee of the IAPM and the Governing Council of IAPM and supersedes any previous regulations that are hereby revoked.

## 3 EXAMINATIONS

**3.1**

Sittings. The examination for the Fellowship of the Indian Academy of Pain Medicine (FIAPM) will normally take place once in each academic year. The Council may at any time decide, subject to adequate notice, to alter the number of sittings of the examination. Examinations will normally be held at one of the following four cities – Delhi, Mumbai, Kolkata and Hyderabad

**3.2**

Subject matter. The examination will be set according to the IAPM curriculum **(see Annexure: 3).** Advanced level of the curriculum/procedures such as spinal cord stimulation, intrathecal drug delivery, and paediatric pain medicine will not be examined from a procedural perspective; however, the examinee does require knowledge of these areas.

**3.3**

Examination structure and marking systems. The structure of the examination and details of the marking systems used are described in **Annexure 1** of this regulatory document.

**3.4**

Application. The application is for both the written and practical components. A candidate who fails either the written or the practical component, when reappearing, should appear for both components again.

**3.5**

Number of attempts. Currently, there is no restriction on the number of attempts.

## 4 PRIORITISATION OF APPLICATIONS

**4.1**

Where a capacity issue arises, priority will be given to IAPM trainees. The remaining examination slots will be filled on a first come, first served basis; provided the candidate satisfies the IAPM requirements in full.

## 5 APPLICATION PROCEDURES

**5.1**

Applicants can apply for examinations by submitting a paper application form through registered post.
The FIAPM examination calendar, details of payment and paper application forms are available on the Society website www.issp-pain.org

**5.2**

Applications must be received by the Registrar not later than 5pm on the published closing date. The Registrar will email applicants to confirm receipt of their applications by post.

**5.3**

The Registrar must receive all the supporting documents along with the application form by post. Late or incomplete applications will not be accepted.

**5.4**

The fees payable shall be fixed by the Council. The demand draft should be made payable to 'Indian Society for the Study of Pain.' The fee for the IAPM trainees to appear for the exam is Rs. 25,000 and for all other non-IAPM categories is Rs. 40,000.

**5.5**

Withdrawals. A candidate withdrawing an application for admission upto two weeks before the closing date will receive 50% of the fee received. Candidates who are forced to withdraw from an examination after the closing date due to a situation beyond their control, such as illness, bereavement or other personal factors, may be entitled to a 50% refund provided the supporting documents are satisfactory. Withdrawal request must be received by the Registrar in writing. Late withdrawal or non-appearance will result in no refund of fee. Fees cannot be deferred from one exam to another and candidates must prove their eligibility for each exam sitting they apply for.

## 6 SPECIAL ARRANGEMENTS

**6.1**

Disability. The Academy is committed to ensure that all candidates have equal opportunity to demonstrate their ability and will make reasonable adjustments to examination arrangements as appropriate for individual disabled candidates. It is the responsibility of the candidate to provide prior information to the Registrar in writing.

**6.2**

Temporary medical conditions. The Academy will consider special arrangements in the form of reasonable adjustments for candidates who have a temporary, ongoing or fluctuating medical condition. It is the responsibility of the candidate to provide prior information to the Registrar or the Chair of Examinations in writing.

## 7 FELLOWSHIP BY EXAMINATION

**7.1**

A person shall be admitted as a Fellow of the Academy and granted use of the post-nominal FIAPM if he or she has:

**7.1.1**

passed all components of the FIAPM examination;

**7.1.2**

complied with such conditions as may be prescribed by the Council in the regulations of the Academy including formal Academy membership, revalidation and good standing.

## 8 FAILURES AND GUIDANCE

**8.1**

Failures. A candidate who is unsuccessful in an examination may enter for the next or any subsequent sitting of the examination.

**8.2**

Guidance. There are no mandatory requirements for candidates to attend guidance interviews following an unsuccessful attempt.

**8.2.1**

If the candidate, however, requests for an interview it will be limited to one interview carried out by a Fellow allocated by the Registrar and attended by the Programme Head, and will be held locally.

**8.2.2**

All correspondence regarding guidance interviews should be made by email (registrar.iapm@gmail.com) or in writing to the Registrar.

**8.2.3**

No special consideration will be given in respect of refunds following guidance interviews.

## 9 RE-MARKING, RE-CALCULATION AND REVIEW

**9.1**

The Academy is committed to ensuring that all candidates are treated fairly and consistently during Academy examinations.

**9.2**

All marks are awarded following strict guidelines. Papers cannot be re-marked and marks confirmed by the Chair is final. Only the Review panel can take a decision to re-mark when there is a bias or impropriety to be rectified.

**9.3**

Re-calculation requests. A Candidate who is dissatisfied with his/her result but is not alleging any impropriety or bias, may request an additional calculation of his/her result. Re-calculation will incur an administration charge of Rs 2000, refundable only where an error is identified. Applicants should be fully aware that errors found during additional calculation are extremely rare.

**9.3.1**

Re-calculation requests should be made in writing to the Registrar and accompanied by the administration charge, by demand draft made payable to 'Indian Society for the Study of Pain.'

**9.4**

Subject to the following regulations, a candidate can request the Chair to Review the conduct or the result of their examination. The candidate should write to the Chair setting out in full the matter on which the request is based. The request for a Review should, in addition, be accompanied by a supporting letter from the Programme Head.

**9.4.1**

Reviews will be entertained which allege bias or impropriety such as wrong or missing documentation, instructions or artefacts, poor seating/lighting, questions not relevant to the examination, questions on a topic not related to the curriculum, personal questions about candidate's origins, beliefs, workplace or experience.

**9.4.2**

The burden of proof lies with the candidate who must prove clear reason as to why their performance was affected by impropriety or bias.

**9.4.3**

No review, however, may be made of matters that relate solely to the examiners' judgement.

**9.4.4**

If the Chair concludes that a review is inadmissible he will so inform the candidate in writing forthwith.

**9.4.5**

If the Chair concludes that the matter, on which the Review is based, provides proof of impropriety or bias of some kind, whether in whole or in part, he/she shall take any action necessary to rectify the situation identified and the candidate shall be informed of the findings and any corrective action to be taken.

**9.4.6**

If the Chair concludes that the matter on which the Review is based does not prove impropriety or bias, then the candidate shall be so informed in writing forthwith.

**9.4.7**

In conducting the review the Chair shall consult the Examiners.

## 10 DRESS CODE, ELECTRONIC DEVICES/MOBILE PHONES AND MISCONDUCT

**10.1**

Dress. Candidates may wear casual clothing for the written examination. For the practical examination, the forms of dress should be appropriate for the candidates' bearing and as it does for day-to-day clinical practice / contact with patients

**10.2**

Mobile phones must be switched off and left in your bags. Phones and electronic devices, such as tablets, blue tooth devices, cameras or calculators are not allowed on the exam floor. Candidate will be disqualified if they are found to be in violation of this requirement.

## 11 ON EXAMINATION DAY

**11.1**

Access. Reception will open from 0900hrs for the written examination and 0700 hrs for the practical examination.

**11.2**

Security of personal property is the candidate's responsibility. We advise that candidates do not bring valuables to the Exam.

**11.3**

Photographic proof of identity. All candidates for examinations of the Indian Academy of Pain Medicine are required to have with them, at the time of taking the examinations, a photographic identity in the form of **ISSP Identity Card**. The candidate must be able to produce this when requested by an examiner on behalf of the Academy. Failure to produce the photographic identity may result in the candidate not being allowed to continue with the examination.

**11.4**

Between exams. The candidates will be provided information regarding when they should be back for the next session. The toilets are situated in easily accessible places and there would be some seating arrangements too. Arrangements will be made to provide snacks and beverages. Please note that the hospital is a no smoking zone.

**11.5**

Complaints. Candidates, who consider they have grounds for complaint, should bring it to the attention of the Registrar/ Chair of Examinations Committee as soon as possible. Complaints will be logged on an incident report form and immediate action to resolve the issues as they arise will be taken wherever possible.

**11.6**

Results. Results in the form of a Pass/Fail list will be posted on the afternoon of the practical examination by 5 pm or earlier. Official result letters giving further break down will follow by post within the next 10 working days. Examiner comments can be requested after receipt of result letters if required, requests should be sent by email to registrar.iapm@gmail.com

## 12 EXPECTED CONDUCT

**12.1**

Bring your Hall ticket, (sent by email) with you. Arrive in good time. There will be a waiting area at the venue.

**12.2**

During written examination, no candidate can leave the exam room for the first 30 minutes or the last 10 minutes of the examination. Candidates are permitted to arrive late, up to a maximum of 30 minutes. No extra time is given to late arrivals. Candidates arriving over 30 minutes after the start time will not be allowed to take the examination. If you finish early and before the 10 minutes final cut off, please raise your hand, the Invigilator will collect your papers. If you wish to leave the room, for any reason, raise your hand and the Invigilator will attend you and escort you to where you need to go.

**12.3**

Place your photo identity on your desk at the beginning of the exam so the invigilator can check it without disturbing you. Ensure you put your candidate number and ISSP number on your answer sheet and question paper as indicated

**12.4**

The invigilators will give time checks every 30 minutes and for the final 10 minutes.

**12.5**

Candidates must not communicate with, or receive communication from any person during the exam other than an invigilator. Candidates must not read or attempt to read the work of any other candidate. Candidates found to have contravened these regulations will be disqualified.

**12.6**

Paper, textbooks or notebooks should not be brought into the exam. Rough paper is not provided for the exams. Candidates may use the back of the question paper. No papers are to be removed from the room at the end of the examination.

**12.7**

Be considerate of other candidates at all times. Eating is not allowed and so is tapping/banging on desks or thinking out loud. There will be water bottles provided at the venue.

**12.8**

When you have finished, collect your bag and leave silently.

## 13 PREPARATION FOR THE EXAMINATION

**13.1**
The examination will test the Knowledge part of the Pain Medicine and generic parts (Annexure 3) of the curriculum.

**13.2**
Skills and Attitudes are assessed predominantly at a local level by the Work Place Based Assessments, quarterly assessments and case presentations.

**13.4**
The examination is about practical skills, core and advanced knowledge of the basic science of pain, clinical assessment and care of patients.

**13.5**
The examination ensures that all aspects of the curriculum are assessed in breadth and in depth. Trainees must be able to demonstrate knowledge that reflects detailed, reflective and broad study of the science and the art of Pain Medicine.

**13.6**
It is anticipated that candidates should be familiar with current opinion, national and international review articles and 'hot topics' in Pain Medicine.

## 14 SUPPORTING DOCUMENTS

**14.1**
Medical Council Registration (to be submitted by all applicants)

**14.2**
Postgraduate certificate (MD/DA/DNB) (to be submitted by all applicants)

**14.3**
Quarterly Training Assessment Forms and Summary of logbook signed by the Programme Head (IAPM trainees only)

**14.4**
Letter of completion of training in pain medicine (to be submitted by all applicants, except IAPM trainees and Senior pain physicians)

**14.5**
Letter confirming a pass in the exit exam for pain medicine (to be submitted by all applicants, except IAPM trainees and Senior pain physicians)

**14.6**
Letter of recommendation from ISSP or IAPM Governing Council members (Senior pain physicians only)

**14.7**
Proof of publication. Two most recent publications (Senior pain physicians only)

**14.8**
IAPM trainees. Demand draft for Rs 25,000 made payable to 'Indian Society for the Study of Pain.'

**14.9**
Other trainees and Senior pain physicians. Demand draft for Rs. 40,000 made payable to 'Indian Society for the Study of Pain.'

## Annexure: 1

## Exam format

# Examination Format

# Fellowship of Indian Academy of Pain Medicine

**Dean** : Dr. Bibhukalyani Das

**Registrar** : Dr. Pradeep Jain

**Examinations Committee**

**Chair** :
Dr. P. Vijayanand

**Members** :
Dr. Krishna Poddar
Dr. Pratibha Matche
Dr. Preeti Doshi

Indian Academy of Pain Medicine

IAPM

The Academy of the Indian Society for Study of Pain

Document Approved October 2017

# Examination Format towards the Fellowship of Indian Academy of Pain Medicine

| | | |
|---|---|---|
| | | Theory Exam Marks: |
| Theory Exam: | | 250 |
| | | Practical Exam Marks: |
| Practical Exam: | 28th July, 2018, Saturday | 250 |

Theory pass percentage: 50%

Practical pass percentage: 50%

Overall pass percentage: 50%

## Theory Exam

10 a.m. to 12 noon

**Short Answer Questions (SAQ's):** Must attempt 5 questions out of 8

**Essay:** Must attempt 2 questions out of 3

- SAQ – 12 marks x 5 (maximum of 60 marks)
- Essay – 35 marks x 2 (maximum of 70 marks)

Maximum marks: 130

## Multiple Choice Questions

1.30 p.m. to 3.30 pm

- 120 questions.
- Correct response: 1 mark
- Incorrect response/ No response: 0 mark

Maximum marks: 120

**Total theory marks: 250**

**Pass mark: 125**

## – Practical Exam

The candidates will be divided into two groups (Group A & B).

### 8 a.m. to 9.30 am

| | Group A | Group B |
|---|---|---|
| 8 a.m. to 8.45 a.m. | Objective Structured Clinical Examination (OSCE) | Viva |
| 8.45 a.m. to 9.30 a.m. | Viva | (OSCE) |

### 10.00 a.m. to 1.00 p.m.

| | Group A | Group B |
|---|---|---|
| 10.00 a.m. to 11.30 a.m. | Long Case Examination | Short Case Examination |
| 11.30 a.m. to 1.00 p.m. | Short Case Examination | Long Case Examination |

**Long case** - will be of 1-hour duration

- 30 minutes for history taking, physical examination and review of investigations
- 30 minutes to present a 15 minutes case formulation followed by 15 minutes of discussion.

**Short cases -** will be of 1- hour duration

- There will be 2 short cases of 30 minutes duration each
- 10 minutes for history and examination
- 20 minutes for presentation and discussion
- Total 1 hour

**OSCE's**

- There will be 5 stations
- Written answers or presentations will be done in 6 minutes each
- Total 30 minutes

## Viva

- There will be two structured vivas.
- Each viva is of 15 minutes duration.
- Total 30 minutes.

## Practical Marks

- Long case x 1 carries 100 marks
- Short cases (2 short cases x 25 marks) - 50 marks
- OSCE (5 stations x 10 marks) - 50 marks
- Viva (2 vivas x 25 marks) - 50 marks
- Total of 250 marks

**Total practical marks: 250**

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**Pass mark: 125**

- For a pass, the candidate has to score a minimum of **125 marks** in Theory examination and a minimum of **125 marks** in the Practical examination.
- For an overall pass, the candidate has to score a minimum of **250 marks** in theory and practical examination put together.

## Annexure:2

## Exam application Form

# FIAPM – Exit Exam Application Form

*You must read the Guidance Notes & Regulations before completing this form*

Photo
Staple please

*Please fill in BLOCK CAPITALS*

First Name (as it appears in the medical council registration)

Surname/ Family Name (as it appears in the medical council registration)

Gender: ☐ Male ☐ Female

Date of Birth: dd/mm/yyyy

ISSP Life membership number

Medical Council Registration number

State where registered

Address for correspondence

Address line 1:

Address line 2:

Address line 3:

Town/ City:

State:

Pin Code:

This address is (Tick One only) ☐ Permanent ☐ For this exam only

Telephone:

Email:

**Please provide the date(s) of previous attempts at the FIAPM**

1. M M Y Y 2. M M Y Y

Please specify which one of the following applies to you

| | |
|---|---|
| I am currently an IAPM trainee | ☐ |
| I have completed pain training in an Indian university accredited programme | ☐ |
| I have completed an accredited pain training overseas | ☐ |
| I have completed pain training from a private institution | ☐ |
| I am a senior pain physician | ☐ |

For supporting documents please refer to Guidance Notes & Regulations 14.1 to 14.9

For examination fee please refer to Guidelines Notes & Regulations 5.4

# Declaration

I certify that:

- All the statements in this application are true.
- I have read and agree to abide by the IAPM Examination Regulations.
- I am eligible in all respects to enter this examination.
- I have no illness or disability that would preclude the safe practice of pain medicine, including dependence on or inappropriate use of alcohol or recreational and/or non-prescribed drugs, and/or treatment with prescribed drugs likely to compromise the safe practice of pain medicine.

Signature: _____ Date: __ / __ / __

**Please consult the accompanying Guidelines Notes & Regulations for further information. The completed application form, supporting documents and exam fee should reach the Registrar IAPM no later than 5 pm, 23rd December 2017.**

Contact details:

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## Annexure: 3

## Curriculum

# FELLOWSHIP OF THE
# INDIAN ACADEMY OF PAIN MEDICINE

# CURRICULUM


Indian
Academy
of Pain
Medicine

IAPM

The Academy of the Indian Society for Study of Pain

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# GLOSSARY

IAPM – Indian Academy of Pain Medicine

IAPM-B - Indian Academy of Pain Medicine Basics

IAPM-C - Indian Academy of Pain Medicine Core

IAPM-KS - Indian Academy of Pain Medicine Knowledge & Skills

DSM – Diagnostic and Statistical Manual

ICD – International Classification of Diseases

# ACKNOWLEDGEMENT

We gratefully acknowledge The Faculty of Pain Medicine, Australian and New ZealandCollege of Anaesthetists for granting permission to use the Pain Medicine Curriculum 2015, and CanMEDS - the physician competency framework developed by the Royal College of Physicians and Surgeons of Canada

# Introduction

The fellowship curriculum in Pain Medicine contains the key learning outcomes to be achieved through the trainees' self- directed learning, clinical experience in the workplace and other educational experiences during training.

The Indian Academy of Pain Medicine offers a eighteen months (18 months) fellowship training program in pain medicine, undertaken in hospitals approved by the academy.

## The scope of pain medicine practice

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

- Acute pain – post-operative, post-trauma, acute episodes of pain in medical conditions.
- Cancer pain – pain due to tumour invasion or compression; pain related to diagnostic or therapeutic procedures; pain due to cancer treatment.
- Chronic non-cancer pain – including more than 200 conditions described in the International Association for Study of Pain's (IASP) Taxonomy.

## Aim of the curriculum

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

More specifically, the curriculum aims to:

- Define the breadth and depth of knowledge and range of skills necessary for a pain physician to provide quality patient care.
- Provide the essentials for the trainees' self-directed learning
- Promote interaction between trainees and mentors, through formative workplace-based assessments and feedback.
- Provide consistency of standards and outcomes across different training settings.
- Outline the basic knowledge and skills required by the trainees to commence the training program.
- Provide a scope of continuing professional development activities.

## Key sections of the curriculum

The key sections of the curriculum are:

1. Basics of Pain Medicine - **IAPM-B**
2. Core Topics Areas – **IAPM-C**
3. Knowledge and Skills expected to be acquired – **IAPM-KS**

The Basics of Pain Medicine defines the prerequisite knowledge and skills that are required at the start of the training program. It is to ensure that the trainee has a commitment towards pain medicine as a specialty, and has prepared adequately to further build on his/her current specialty abilities. The content of this phase reflects the essential knowledge and skills required of trainees entering the fellowship in pain medicine.

The Core topic areas direct teaching and learning in relation to specific topic areas in pain medicine, in which the pain physician should be an expert by the end of training. Advanced pain medicine training should be delivered in a designated multi-disciplinary specialist centres undertaking a wide variety of pain management services spanning the full range of pain medicine treatment options/plans. Trainees are expected to spend 18 months in these dedicated advanced units of training in addition to the time spent in intermediate and higher training.

# BASICS OF PAIN MEDICINE

# IAPM-B 1.0 Foundations of Pain Medicine

It is expected that trainees to have acquired the following basic knowledge and skills prior to commencing training in pain medicine.

## IAPM-B 1.1 Bioethics

| | |
|---|---|
| Justice | Autonomy |
| Beneficence | Non-maleficence |

## IAPM-B 1.2

The International Association for the Study of Pain (IASP) definition of pain

## IAPM-B 1.3

The distinction between nociception and pain

## IAPM-B 1.4

The differences between acute and chronic pain

## IAPM-B 1.5

The philosophical models of pain. Cartesian dualism and alternative Monist theories such as Advaita.

## IAPM-B 1.6

The different conceptual models in pain medicine

## IAPM-B 1.7

The principles of the multi-disciplinary approach to pain management

## IAPM-B 1.8

Common pain terms

| | | | | |
|---|---|---|---|---|
| Analgesia | Hyperalgesia | Hypoalgesia | Anaesthesia | Hyperaesthesia |
| Paraesthesia | Dysaesthesia | Hyperpathia | Allodynia | Anaesthesia dolorosa |
| Spontaneous pain | Evoked pain | Radicular pain | Radiculopathy | — |

## IAPM-B 1.9

Terms used in sensory testing of pain including, but not limited to:

| | | |
|---|---|---|
| Sensory threshold | Pain threshold | Pain tolerance level |
| Punctate mechanical allodynia | Dynamic mechanical allodynia | Pressure-evoked mechanical allodynia |
| Cold allodynia | Warmth allodynia | Hyperpathia |

## IAPM-B 1.10

Placebo & Nocebo Broadly discuss current concepts of placebo effect

# IAPM-B 2.0 Basic Sciences

## IAPM-B 2.1

Anatomy of the peripheral and central nociceptive pathways, including:

- The somatosensory system with particular reference to dermatomes and peripheral nerves
- The autonomic nervous system

## IAPM-B 2.2

Referred pain, including its embryological basis

## IAPM-B 2.3

Anatomy of ascending and descending pathways of nociceptive modulation in the central nervous system

## IAPM-B 2.4

Changes that occur following nerve injury, including Wallerian degeneration, neurapraxia, and axonotmesis

## IAPM-B 2.5

Peripheral and central sensitisation of nociception including reference to:

- Synaptic plasticity
- N-methyl-D-aspartate (NMDA) receptors
- Long-term potentiation

## IAPM-B 2.6

Mechanisms of transduction, transmission and modulation in nociceptive pathways

## IAPM-B 2.7

Mechanisms of nociceptive pain and neuropathic pain

## IAPM-B 2. 8

Clinical features of somatic and visceral pain

## IAPM-B 2.9

Physiology of tolerance, dependence and addiction with respect to pharmacological agents

# IAPM-B 3.0 Assessment of Pain

## IAPM-B 3.1

The influence of the following factors on the patient's experience of pain:

- Social
- Cultural
- Psychological
- Personality
- Physical
- Genetic

## IAPM-B 3.2

Response to the experience of pain including affective, cognitive and behavioural responses

## IAPM-B 3.3

DSM and ICD framework for classification of psychiatric disorders with particular reference to anxiety and mood disorders

## IAPM-B 3.4

The concept of coloured “flags” in relation to risk factors for developing chronic pain

## IAPM-B 3.5

Perform a basic medical assessment including:

- General history-taking
- General physical examination
- Mental state examination

## IAPM-B 3.6

Interpret basic investigations, including but not limited to:

- Full blood count
- Biochemical screening including liver function tests
- Arterial blood gases
- Thyroid function tests
- Electrocardiograms
- Plain radiographs

## IAPM-B 3.7

Problem-oriented synthesis of clinical information

# IAPM-B 4.0 Management of Pain

## IAPM-B 4.1

The treatment modalities that may be used in the management of pain:

- Psychological
- Physical
- Pharmacological
- Interventional

## IAPM-B 4.2

The pharmacokinetic and pharmacodynamic principles of analgesics

## IAPM-B 4.3

Pharmacogenetic variations in

- Codeine
- Tramadol
- Tricyclic antidepressants
- Non-steroidal anti-inflammatory drugs

## IAPM-B 4.4

Describe the:

- Mechanism(s) of action
- Adverse effects including toxicity
- Indications, precautions, and contraindications for use of the following drugs

| | | | |
|---|---|---|---|
| Paracetamol | Non-steroidal anti-inflammatory drugs | Opioid agonists, partial agonists, agonist-antagonists and antagonists | Tramadol & tapentadol |
| Antidepressants | Anticonvulsants | Benzodiazepines | Local anaesthetics |

## IAPM-B 4.5

Opioid equivalence in

- Buprenorphine
- Codeine
- Fentanyl
- Methadone
- Morphine
- Tapentadol
- Tramadol

## IAPM-B 4.6

Pharmacokinetic and pharmacodynamic differences between the different systemic routes of administration of drugs, including:

| | | | | |
|---|---|---|---|---|
| Oral | Subcutaneous | Intramuscular | Intravenous | Transdermal |
| Sublingual | Buccal | Intranasal | Rectal | Inhalational |

# IAPM-B 5.0 Research Methodology

## IAPM-B 5.1

Principles of clinical epidemiology, including:

- Terminology and presentation of epidemiological data
- Different types of epidemiological study design: descriptive (correlational, case reports/series, cross-sectional surveys); analytical (observational, case-control, cohort); interventional (experimental studies or clinical trials)

## IAPM-B 5.2

Principles of biostatistics, including:

- Different data types (parametric/non-parametric, continuous/interval, ratio, categorical, dichotomous), and their relevance to statistical analysis
- Influence of sample size on derived indices such as a proportion or a mean
- Calculation and interpretation of a 95 per cent confidence interval of a mean or a proportion
- Concept of probability testing, sample distributions and the importance of appropriate sampling techniques
- Concepts of significance and power when testing an hypothesis
- Appropriate use of tests of agreement between continuous data, such as Pearson and Spearman correlation coefficients and intra-class correlation
- Application, limitations and interpretation of tests used to analyze single studies and meta-analyses: specifically t-test, chi-squared test, odds ratios, analysis of variance, effect size, survival curves and number- needed-to-treat (NNT)

## IAPM-B 5.3

Concepts of:

- Reliability
- Validity
- Sensitivity
- Specificity

## IAPM-B 5.4

Principles of assessing scientific evidence, including:

- Grades of evidence and methodologies and difficulties of combining evidence as in systematic reviews and meta-analyses
- Influence of bias, chance, and confounding variables in studies, and methods to reduce them

# CORE TOPIC AREAS

# IAPM-C 1.0 Neuropathic and related pain

### IAPM-C 1.1

Descriptors of pain and other pain-related terms as in the International Association for the Study of Pain (IASP) Taxonomy.

### IAPM-C 1.2

Distinguish the use of terms such as nociceptive and neuropathic

### IAPM-C 1.3

Distinguish between a clinical phenomenon, its inferred explanation and its relationship to a diagnostic entity

## Applied basic knowledge

### IAPM-C 1.4

Neurobiological basis for allodynia, hyperalgesia and hyperpathia

### IAPM-C 1.5

Neurobiology of pain in

- Brain injury
- Spinal cord injury
- Traumatic peripheral nerve injury, including that incurred during surgery
- Compression neuropathy

### IAPM-C 1.6

Neurobiology of pain following amputation of a limb

## Clinical assessment of neuropathic pain

### IAPM-C 1.7

Common tools and their limitations to assess neuropathic pain

### IAPM-C 1.8

Presentations of pain in the following neurological diseases:

- Stroke
- Trigeminal neuralgia  Parkinson's disease
- Multiple sclerosis
- Syringomyelia
- Peripheral neuropathies: diabetic, HIV-associated
- Acute herpes zoster infection and post-herpetic neuralgia
- Guillain-Barre syndrome
- Neurofibromatosis
- Erythromelalgia

## Management of Neuropathic Pain

### IAPM-C 1.9

Mechanism-based versus a disease-based approach to the pharmacological treatment of neuropathic pain

### IAPM-C 1.10

Basic pharmacological principles of drug and botulinum toxin treatment for painful dystonia

### IAPM-C 1.11

Clinical scenarios in which neuromodulation may be considered for control of central neuropathic pain

# IAPM-C 2.0 Acute Pain

## Background

### IAPM-C 2.1

Role of an acute pain service

### IAPM-C 2.2

Safe and effective delivery of acute pain management techniques in hospitals including: education of staff and patient monitoring requirements; responses to inadequate or excessive medication; and equipment used

### IAPM-C 2.3

Ongoing management of acute pain following discharge from hospital

### IAPM-C 2.4

Role of acute pain management in rehabilitation, including enhanced recovery or "fast-track" surgery

### IAPM-C 2.5

Discuss the risk factors and mechanisms involved in the transition of acute to chronic pain, and critically evaluate the evidence for measures that may mitigate this transition

## Applied Basic knowledge

### IAPM-C 2.6

Pharmacokinetics and pharmacodynamics of opioids and local anaesthetics administered into the epidural space or cerebrospinal fluid

### IAPM-C 2.7

Physiological consequences of a central neuraxial (epidural or intrathecal) block with local anaesthetics and/or opioids

### IAPM-C 2.8

Adjuvant agents that may be used to enhance the quality or extend the duration of central neuraxial or other regional analgesia blocks, and discuss their mechanisms of action, risks and benefits

### IAPM-C 2.9

The contribution of maladaptive psychological coping skills and psychiatric illness and socio-environmental factors to the experience of acute pain (pain ratings, opioid use) and the risks of persistent pain and prolonged opioid use after discharge from hospital

## Clinical assessment of acute pain

### IAPM-C 2.10

Assessment of acute pain (including acute neuropathic pain) in the adult patient, including the nonverbal patient, and the relevance of functional assessment

### IAPM-C 2.11

Assessment of acute pain in the older patient (especially those with dementia) including difficulties, relevance of functional assessment and use of other pain evaluation methods that do not rely on verbal ability

### IAPM-C 2.12

Assessment of acute pain in children including difficulties, relevance of functional assessment

### IAPM-C 2.13

Causes of delirium in the acute pain setting and the effect this may have on assessment and treatment of the patient

## Management of Acute Pain

### IAPM-C 2.14

Compare and contrast the evidence for efficacy and adverse effects in the management of acute pain with:

- opioids
- paracetamol
- non-steroidal anti-inflammatory drugs
- tramadol and tapentadol

### IAPM-C 2.15

Critically discuss the evidence-base for the indications, efficacy and adverse effects of the following drugs in the management of acute pain:

- NMDA-receptor antagonists
- anticonvulsants
- antidepressants
- alpha-2 adrenergic agonists
- inhalational agents
- calcitonin
- corticosteroids
- systemic lignocaine

### IAPM-C 2.16

Assess and manage all adverse effects related to pharmacological therapies in acute pain management, including but not limited to:

- Opioid-induced ventilatory impairment and excessive sedation
- Nausea and vomiting
- Opioid-induced pruritus
- Constipation
- Opioid-induced cognitive dysfunction

### IAPM-C 2.17

Describe the complications that may be associated with neuraxial analgesia and other regional analgesia (including secondary to needle/catheter insertion and drug administration) and how these may be mitigated and managed

### IAPM-C 2.18

Outline a plan to transition patients to oral analgesia from patient-controlled analgesia (PCA), epidural or regional analgesia for the management of acute pain

### IAPM-C 2.19

Discuss the use of ultrasound imaging in the performance of regional analgesic techniques

### IAPM-C 2.20

For patients receiving:

- PCA
- Epidural analgesia (including patient-controlled epidural analgesia)
- Intrathecal analgesia
- Plexus analgesia (including patient-controlled regional analgesia)
- Major peripheral nerve analgesia
- Paravertebral analgesia

### Outline:

| | | |
|---|---|---|
| Risk-benefit analysis | Monitoring of efficacy | Safety considerations |

### IAPM-C 2.21

Discuss issues specific to the management of acute pain in special situations

| | |
|---|---|
| Spinal cord injury | Burns |
| Trauma | Crush injuries and ischaemic limbs |
| Obstructive sleep apnoea | Pregnant or breast-feeding |
| Renal impairment (including those on dialysis) | Patients with chronic pain |
| Opioid-tolerant patients | Past or present substance abuse disorder |

**IAPM-C 2.22**

Discuss the management of patients who are taking anticoagulants or anti-platelet agents and who have or are about to receive catheters in situ for neuraxial or major peripheral nerve analgesia

**IAPM-C 2.23**

Discuss the potential complications specific to the concurrent use of anticoagulant and antiplatelet agents in patients undergoing central neuraxial and major regional nerve blockade

**IAPM-C 2.24**

Discuss the management of patients undergoing repeated painful procedures

# IAPM-C 3.0 Spinal pain

### IAPM-C 3.1

Compare and contrast the current International Association for the Study of Pain (IASP) Classification of Spinal Pain with other classification systems

### IAPM-C 3.2

Discuss controversies in diagnostic terminology in spinal pain

### IAPM-C 3.3

Discuss the public health dimensions of the problem of spinal pain, including but not limited to:

- Prevalence
- Demography
- Personal and community costs

### IAPM-C 3.4

Recognise risk factors for transition of acute to chronic low back pain

### IAPM-C 3.5

Recognise risk factors for transition of acute to chronic neck pain following “whiplash” injury

### IAPM-C 3.6

Discuss factors predictive of chronicity after acute spinal pain, including but not restricted to the “flag” system

## Applied foundation knowledge

### IAPM-C 3.7

Describe the neuroanatomy and function of the spine and identify potential structures that can be associated with pain

### IAPM-C 3.8

Critically appraise the value of zygo-apophyseal joint blocks, medial branch blocks and denervation as part of a long-term plan

## Clinical assessment of spinal pain

### IAPM-C 3.9

Discuss the rationale and use of psychological and functional questionnaires for chronic spinal pain

### IAPM-C 3.10

Identify the potential specific causes of acute and chronic spinal pain:

- Infection
- Trauma
- Neoplasia
- Metabolic bone disease
- Inflammatory disease

### IAPM-C 3.11

Distinguish between radiculopathic and referred pain, with respect to limb girdle or limb pain associated with spinal pain

### IAPM-C 3.12

Critically interpret commonly used physical examination tests, for example, Lasegue/straight leg raise test, slump test, etc

### IAPM-C 3.13

Perform a gait analysis

### IAPM-C 3.14

Recognise the clinical presentation of symptomatic spinal stenosis

### IAPM-C 3.15

Distinguish between acute and acute-on-chronic episodes of spinal pain

### IAPM-C 3.16

Reinterpret pre-existing investigations and opinions in the light of clinical findings

## Management of Spinal Pain

### IAPM-C 3.17

Critically discuss the evidence base for management of acute low back pain with or without radiculopathic pain

### IAPM-C 3.18

Discuss the efficacy of psychological therapies in chronic spinal pain, including but not limited to:

- Cognitive
- Behavioural
- Acceptance/ commitment

### IAPM-C 3.19

Discuss principles of activity prescription in the management of spinal pain

### IAPM-C 3.20

Generally discuss the evidence for efficacy and adverse effects of physical therapies in chronic spinal pain, including but not limited to:

- Graded exercise exposure
- Stretching/strengthening
- Posture training
- Hydrotherapy
- Manual therapy
- Massage
- Acupuncture
- Biofeedback

### IAPM-C 3.21

Critically discuss the evidence base for the efficacy of pharmacological treatments for chronic spinal pain

### IAPM-C 3.22

Critically discuss the evidence base for the indications, efficacy and complications of interventions used for chronic spinal pain, including

#### Injections

- Epidural/caudal steroids
- Medial branch injections
- Prolotherapy
- Trigger point injections
- Botulinum toxin
- Intra-articular steroids (apophyseal and sacro-iliac)

#### Radiofrequency and electrothermal treatment

- Facet joint
- Intervertebral disc
- Sacro-Iliac joint
- Dorsal root ganglion

❖ **Spinal cord stimulation**

❖ **Peripheral nerve stimulation**

❖ **Intrathecal drug infusion**

## IAPM-C 3.23

Critically discuss the evidence base for the indications, efficacy and limitations of surgical interventions for chronic spinal pain:

- Decompression/laminectomy
- Discectomy
- Disc replacement
- Fusion

## IAPM-C 3.24

Broadly appreciate the evidence base for the efficacy and complications of complementary and alternative medicine in spinal pain, for example, acupuncture, chiropractic

# IAPM-C 4.0 Problematic substance use

## Background

### IAPM-C 4.1

Define the following concepts:

- Tolerance
- Physical dependence
- Psychological dependence
- Problematic substance use
- Addiction

### IAPM-C 4.2

Critically discuss the differences in understanding and use of these terms between the disciplines of pain medicine and addiction medicine

### IAPM-C 4.3

Distinguish between inappropriate prescription (inappropriate prescriber behaviour) and unsanctioned use (unsanctioned user behaviour) of drugs

### IAPM-C 4.4

Describe the impact of the following non-prescription substances on health and pain experience:

- caffeine
- nicotine
- alcohol
- cannabis
- methamphetamine and other stimulants

## Applied basic knowledge

### IAPM-C 4.5

Describe in detail regulations regarding the prescription, restrictions and monitoring of controlled substances in the relevant jurisdiction(s)

### IAPM-C 4.6

Discuss the current DSM criteria for diagnosis of substance use disorder

### IAPM-C 4.7

Discuss in detail the role of benzodiazepines in acute pain and chronic non-cancer pain

## Clinical presentations and risk assessment

### IAPM-C 4.8

Recognise the different forms of substance abuse that may be co-morbid with the experience of chronic pain

### IAPM-C 4.9

Compare and contrast intoxication and withdrawal syndromes from:

- opioids
- alcohol
- benzodiazepines
- amphetamines
- cannabis

### IAPM-C 4.10

Identify people with or at risk of substance abuse

### IAPM-C 4.11

Identify fellow healthcare professionals with or at risk of substance abuse

### IAPM-C 4.12

Critically appraise the tools available to assist clinical assessment of suitability for, and monitoring of, prescription of opioids for chronic non-cancer pain

### IAPM-C 4.13

Stratify patients into “risk” categories when considering opioid prescription for pain

### IAPM-C 4.14

Discuss the uses and limitations of urine drug testing

## Management of problematic substance use

### IAPM-C 4.15

Quantify medication use by persons with chronic pain, including assessing the cumulative effects of multiple substances

### IAPM-C 4.16

Discuss strategies to reduce opioid diversion

### IAPM-C 4.17

Broadly discuss regimens of supervised withdrawal from:

- opioids
- benzodiazepines
- alcohol

### IAPM-C 4.18

Demonstrate understanding of controlled opioid substitution therapy programs in the relevant jurisdiction

### IAPM-C 4.19

Assist in the management of patients with problematic substance use in the context of acute and chronic pain, including monitoring, drug therapy and rehabilitation

### IAPM-C 4.20

Counsel patients, their families and carers, and colleagues regarding the conduct of withdrawal of opioids and benzodiazepines in chronic non-cancer pain.

### IAPM-C 4.21

Work ethically with general practitioners, families and, where appropriate, employers of patients with co-morbid pain and problematic substance use

# IAPM-C 5.0 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.

## Background

### IAPM-C 5.1

Appreciate the taxonomy of functional gastrointestinal disorders and chronic pelvic pain syndromes, in particular the trend to move away from end-organ nomenclature

### IAPM-C 5.2

Discuss the concurrence of somatic and visceral pain syndromes

## Applied Basic Knowledge

### IAPM-C 5.3

Generally describe the innervation of the viscera within the:

- ❖Thorax (cardiac and non-cardiac)
- ❖Abdomen (including peritoneal and retroperitoneal spaces)
- ❖Pelvis (female and male)

### With particular reference to:

- Stellate ganglion
- Splanchnic nerves
- Coeliac ganglion
- Hypogastric plexus
- Ganglion impar
- Pudendal nerve

### IAPM-C 5.4

Demonstrate an understanding of the neurobiology underlying:

- Visceral pain
- Visceral hyperalgesia

### IAPM-C 5.5

Discuss current concepts of referred pain:

- Viscero-somatic
- Viscero-visceral
- Somato-somatic

### IAPM-C 5.6

Discuss the “brain-gut axis” and the neurohumoural functions of the gut

## Clinical assessment of visceral pain

### IAPM-C 5.7

Elicit a history of painful visceral dysfunction, including but not limited to:

- Dysuria
- Dyschezia
- Dysmenorrhoea
- Dyspareunia

### IAPM-C 5.8

Identify 'red flag' features that suggest active visceral disease

### IAPM-C 5.9

Distinguish clinically between:

- Active visceral nociception
- Visceral hyperalgesia
- Referred pain with and without hyperalgesia:
- Viscero-somatic
- Viscero-visceral

### IAPM-C 5.10

Demonstrate a mechanistic approach to identifying non-visceral causes of thoracic, abdominal and pelvic pain, especially post-surgical neuropathic pain

### IAPM-C 5.11

Demonstrate a mechanistic approach to differentiating causes of pain at the somatic-visceral interface of the pelvis and perineum, in female and in male patients

## Management of visceral pain

### IAPM-C 5.12

Discuss the principles of pharmacotherapy for visceral pain and visceral hyperalgesia

### IAPM-C 5.13

Discuss the evidence base for the indications, effectiveness and adverse effects of invasive therapies used for chronic visceral pain

### IAPM-C 5.14

Discuss treatment options for capsular pain associated with liver, spleen and renal pathology

### IAPM-C 5.15

Discuss the role of exogenous gonadal hormones in treatment of gynaecological visceral pain

### IAPM-C 5.16

Discuss treatment options for the management of irritable bowel syndrome

# IAPM-C 6.0 Pain related to cancer

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.

## Background

### IAPM-C 6.1

Identify sociocultural influences on the experience of cancer and of cancer- related pain

### IAPM-C 6.2

Compare and contrast the assessment and management of persons with cancer pain and those with chronic non-cancer pain

### IAPM-C 6.3

Recognise the problems faced by cancer survivors who have persistent pain

### IAPM-C 6.4

Discuss the meaning and significance of the World Health Organization analgesic guidelines for pain in cancer

### IAPM-C 6.5

Show awareness of protocols addressing unpleasant end-of-life symptoms including but not limited to:

- Pain
- Nausea/vomiting
- Respiratory distress
- Itch

### IAPM-C 6.6

Recognise the essential role of close liaison with other teams, specifically from oncology, radiation oncology and palliative care

## Applied basic knowledge

### IAPM-C 6.7

Discuss the biological mechanisms contributing to the experience of pain:

- Arising from a solid viscus
- Arising from a hollow viscus
- Directly related to cancer (tumour invasion, compression, metastases etc.)
- Indirectly related to cancer (pressure areas, acute herpes zoster infection)
- Related to cancer treatments (surgery, radiotherapy, chemotherapy, hormone therapy or immunotherapy)

### IAPM-C 6.8

Recognise interactions of medications, particularly the anti-cancer drugs, with the cytochrome P450 enzyme system and how this might influence analgesic treatments

### IAPM-C 6.9

Discuss the analgesic benefits of cancer-modifying treatments such as: Chemotherapy Radiotherapy Hormone therapy

### IAPM-C 6.10

Discuss biological mechanisms contributing to:

- Post-chemotherapy pain, with particular reference to
- Chemotherapy-induced peripheral neuropathy
- Mucositis
- Post-radiotherapy neuropathic pain

## Clinical assessment of cancer pain

### IAPM-C 6.11

Define and distinguish between incident pain and incompletely relieved persistent pain

### IAPM-C 6.12

Apply a mechanism-based approach to identifying the origins and contributing factors to pain in cancer

### IAPM-C 6.13

Describe the clinical presentations of mucositis induced by chemotherapy or immunotherapy

### IAPM-C 6.14

Discuss the presentation of oncological emergencies in the patient with cancer- related pain, including but not limited to:

- Acute spinal cord compression
- Life-threatening increased intracranial pressure
- Acute bowel obstruction and perforation of a viscus
- Hypercalcaemia
- Long bone fracture

## Management of cancer-associated pain

### IAPM-C 6.15

Discuss the different goals of care for a pre-terminal patient compared with those for a terminal patient

### IAPM-C 6.16

Discuss the role of cancer therapies in the management of cancer-related pain, including but not limited to:

- Radiotherapy
- Radiopharmaceuticals
- Chemotherapy
- Immune therapy
- Surgery

### IAPM-C 6.17

Discuss the management of acute pain in cancer patients, including:

- Diagnostic interventions
- Therapeutic interventions
- Surgery
- Radiotherapy
- Chemotherapy

### IAPM-C 6.18

Discuss management of post-chemotherapy and post-radiotherapy pain

### IAPM-C 6.19

Discuss management of mucositis, with particular reference to children

### IAPM-C 6.20

Outline the changes in pain management when a patient is:

- No longer able to swallow
- Unconscious
- Likely to die within days

### IAPM-C 6.21

Critically discuss the use of other adjuvant analgesics in cancer pain including but not limited to:

- bisphosphonates
- denosumab
- corticosteroids

  ketamine

## IAPM-C 6.22

Discuss the role of interventional procedures in the management of cancer pain that is unresponsive to non-invasive treatment, including but not limited to:

- Neuraxial and intracerebroventricular administration of medications
- Neurolytic blocks, with particular reference to:
  - Saddle block
  - Coeliac plexus block
- Surgical procedures
  - Cordotomy

## IAPM-C 6.23

Critically discuss the use of complementary and alternative medicines in patients with cancer pain

## IAPM-C 6.24

Discuss the evidence base for cannabinoids in the management of pain and other symptoms in patients

# IAPM-C 7.0 Headache and orofacial pain

Only a minority of people with headache disorders are appropriately diagnosed; headache is an underestimated and undertreated problem throughout the world. A number of specific headache and facial pain disorders may be identified based on careful clinical assessment.

## Background

### IAPM-C 7.1

Appraise the International Classification of Headache Disorders

### IAPM-C 7.2

Generally discuss accepted definitions of terms associated with headache syndromes

### IAPM-C 7.3

Describe a taxonomy of orofacial pain

## Applied Basic knowledge

### IAPM-C 7.4

Describe the anatomy of the cranial and upper cervical nerves and the innervation of the scalp, sinuses and teeth

### IAPM-C 7.5

Describe potential neurobiological mechanisms for:

- Headache
- Facial pain
- Orodental pain

### IAPM-C 7.6

Discuss the pathophysiology of trigeminal neuralgia

### IAPM-C 7.7

Discuss the pathophysiology of:

- Post-traumatic headache
- Post-craniotomy headache
- Post-dural puncture headache

## Assessment of headache and orofacial pain

### IAPM-C 7.8

Perform a cranial nerve examination

### IAPM-C 7.9

Perform an examination of the temporomandibular joint

### IAPM-C 7.10

Perform an examination of the cervical spine

### IAPM-C 7.11

Detail the critical factors for assessing life-threatening headache

### IAPM-C 7.12

Demonstrate awareness of potential causes of headache that may be overlooked on initial assessment including:

- Idiopathic intracranial hypertension
- Low cerebrospinal fluid (CSF) pressure headache (intracranial hypotension)
- Post-craniotomy headache
- Pathology in the eyes and ears
- Space-occupying lesions
- Vascular disease
- Sinus pathology

## Headache

### IAPM-C 7.13

Distinguish between the clinical features of the following primary chronic daily headache syndromes:

- Migraine (with and without aura)
- Transformed migraine
- Cluster headache and variants

### IAPM-C 7.14

Distinguish between the clinical features of the following secondary chronic daily headache syndromes:

- Medication-related
- Medication overuse headache
- Medication-induced side effects
- Post-traumatic
- Headache attributable to head injury
- Headache attributable to neck injury or whiplash
- Disorders of intracranial pressure
- Increased intracranial pressure
- Decreased intracranial pressure
- Headache referred from other structures
- Tension-type headache
- Cervicogenic headache

## Orofacial pain

### IAPM-C 7.15

Recognise the clinical features of:

- Trigeminal neuralgia
- Other cranial neuralgias
- Post-herpetic neuralgia
- "Burning mouth" syndrome

### IAPM-C 7.16

Apply a differential diagnosis approach to determining the anatomical origin of "atypical" facial pain

### IAPM-C 7.17

Distinguish pain of odontogenic and non-odontogenic origin

### IAPM-C 7.18

Describe the spectrum of temporomandibular joint dysfunction

## Management of headache and orofacial pain

### IAPM-C 7.19

Discuss the evidence base for non-drug interventions in primary and secondary headache syndromes:

- Cognitive-behavioural therapy
- Relaxation
- Sleep hygiene
- Exercise
- Diet
- Massage
- Acupuncture

### IAPM-C 7.20

Discuss the evidence base for pharmacological treatment of acute migraine:

- simple analgesics
- non-steroidal anti-inflammatory drugs
- antiemetics
- triptans
- opioids

### IAPM-C 7.21

Discuss the evidence base for pharmacological prophylaxis in migraine:

- beta-blockers

- calcium channel blockers
- tricyclic agents
- topiramate
- pizotifen
- ergot derivatives
- other agents including SNRIs

### IAPM-C 7.22

Discuss the evidence base for and the role of botulinum toxin in the management of chronic migraine

### IAPM-C 7.23

Discuss the role of occipital nerve stimulation in the management of refractory migraine

### IAPM-C 7.24

Discuss the treatment options available in the management of medication- overuse headache

### IAPM-C 7.25

Discuss the evidence base for pharmacological treatment of trigeminal neuralgia with:

- carbamazepine
- gabapentin
- clonazepam
- baclofen

### IAPM-C 7.26

Discuss the efficacy and complications of surgical options for trigeminal neuralgia:

- Microvascular decompression
- Radiofrequency ablation
- Balloon compression

### IAPM-C 7.27

Discuss the evidence base behind the treatments for temporomandibular joint disease including but not limited to:

- Cognitive behavioural therapy
- Physical therapies
- Dental splints
- Temporomandibular joint irrigation
- Temporomandibular joint surgery

# IAPM-C 8.0 Complex Regional Pain Syndrome (CRPS)

Complex regional pain syndromes (CRPS) are enigmatic challenges to understanding and management. Insight into their pathophysiology and natural history, and application of evidence-based approaches to prevention and treatment are essential.

## Background

### IAPM-C 8.1

Discuss the historical progression of terminology of these conditions, towards the current clinical and research (Budapest) diagnostic criteria (including sensitivity, specificity and positive predictive value)

### IAPM-C 8.2

Compare and contrast adult and paediatric CRPS in terms of presentation, disease course, and prognosis

## Applied basic knowledge

### IAPM-C 8.3

Discuss proposed pathophysiological mechanisms of CRPS

### IAPM-C 8.4

Critically discuss “sympathetically maintained pain”

### IAPM-C 8.5

Explain the rationale for programs of:

- Desensitisation
- Graded mobilisation

## Clinical identification and assessment of CRPS

### IAPM-C 8.6

Generate a differential diagnosis for a patient with presumed CRPS

### IAPM-C 8.7

Perform a functional assessment of the CRPS-affected part including:

- Comparison with the non-affected side
- Performance of activities of daily living
- Gait analysis

## Management of CRPS

### IAPM-C 8.8

Outline the role of the following strategies in achieving improved function in patients with CRPS:

- Psychological (including cognitive) and physical techniques, including but not limited to:
  - Graded paced exercise and activity
  - Restoration of independence in activities of daily living
  - Management of fear/avoidance
  - Graded motor imagery
- Pharmacotherapy
- Interventions, including but not limited to:
  - Implantable devices
  - Sympathectomy
  - Infusion therapy

### IAPM-C 8.9

Critically discuss preventative strategies employed for CRPS according to the current evidence base (for example, vitamin C, steroids, ketamine)

# IAPM-C 9.0 Chronic Widespread Pain

Specialist pain medicine physicians will be asked to assess and manage patients who have pain that is not well understood by medical science. Such presentations are marked by incomplete knowledge, uncertainty as to causation, and controversy as to appropriate management. Not infrequently the conditions are associated with strongly held but scientifically unsupported beliefs. “Chronic widespread pain for which there is no obvious cause” is a case in point. This study unit requires integration of the other core topic areas.

## Background

### IAPM-C 9.1

Demonstrate understanding of historical speculations about the nature of pain that is not well understood, the shortcomings of these speculations, and the medical and social outcomes that have arisen as a result of the adoption of these concepts. These include but are not limited to:

- Symptoms as psychological by default (DSM-V and ICD-10)
- Symptoms as injury (for example, “repetitive strain injury”)
- Symptoms as disease entity (for example, “fibromyalgia syndrome”)

### IAPM-C 9.2

Be aware of developments in the field of psycho-neuro-immuno-biology relevant to the experience of chronic pain

## Applied Basic knowledge

### IAPM-C 9.3

Critically discuss the concepts of somatisation and hypervigilance

### IAPM-C 9.4

Discuss the "diagnostic" category of somatic symptom and related disorders (according to DSM-V or ICD-10), including but not limited to:

- Somatic symptom disorder
- Illness anxiety disorder
- Conversion disorder (functional neurological symptom disorder)
- Psychological factors affecting other medical conditions
- Factitious disorder

### IAPM-C 9.5

Recognise the potential contributions of sources of somatic and visceral nociception to the experience of widespread pain

## Assessment of widespread pain

### IAPM-C 9.6

Outline the heterogeneity of clinical presentations of “widespread pain”

### IAPM-C 9.7

Critically interpret the clinical finding of “tenderness”

### IAPM-C 9.8

Critically evaluate the constructs of “myofascial pain” and “fibromyalgia

## Management of widespread pain

### IAPM-C 9.9

Discuss reasons for the paucity of quality evidence in the management of chronic widespread pain

# KNOWLEDGE & SKILLS

# IAPM-KS 1.0 KNOWLEDGE & SKILLS

The IAPM fellowship would help the trainee to dynamically apply high- level knowledge, skills and professional attitudes in the practice of pain medicine across stable, unpredictable and complex situations.

## Clinical assessment and formulation

### IAPM-KS 1.1

Triage pain patients with respect to urgency, complexity and facilities required

### IAPM-KS 1.2

Elicit and interpret a detailed biopsychosocial history of:

- The patient experiencing pain
- The pain experienced by the patient
- The consequences of the experience of pain for the patient

### IAPM-KS 1.3

Discuss the application of the World Health Organization (WHO) International Classification of Functioning, Disability and Health (ICF)concepts to people experiencing pain:

- Functioning and disability
- Body functions and body structures
- Activities and participations
- Contextual factors
- Environmental factors
- Personal factors

The WHO ICF is a classification of health and health-related domains. For more information refer to ( http:/who.int/classifications/icf/en/ )

### IAPM-KS 1.4

Perform a focused sociological assessment of the patient, including but not limited to:

- Housing
- Eating habits
- Support
- Family and life roles
- Employment/occupational factors
- Financial status
- Recreational activities
- Mobility, including driving capability
- Cultural beliefs
- Meaning and purpose

### IAPM-KS 1.5

Perform a focused psychological assessment and mental state examination of the patient, including but not limited to:

- Developmental history
- Family medical and psychological history
- Personal psychological history
- Personality style
- Coping strategies
- Cognitive impairment
- Identification of lifetime stresses

### IAPM-KS 1.6

Perform a focused biomedical assessment, including but not limited to:

- Response to treatment
- Nutritional status
- Sleep function
- Sexual function

### IAPM-KS 1.7

Adapt assessment techniques to specific populations such as:

- Children
- Older patients
- Patients from linguistically or culturally diverse backgrounds
- Patients who are cognitively impaired
- Patients with behavioural issues

### IAPM-KS 1.8

Perform and interpret a pain-orientated physical examination, incorporating:

- Pain oriented sensory testing
- Assessment of function
- Relevant systems

### IAPM-KS 1.9

Recognise that pain in any one patient may attract different concurrent descriptors and therefore different inferred mechanisms

### IAPM-KS 1.10

Demonstrate ability to infer mechanism(s) of production of pain on the basis of clinical examination, irrespective of pre-existing diagnostic label(s)

### IAPM-KS 1.11

Critically review existing investigations and interpretations, including but not limited to bone scans, computed tomography (CT) scans, magnetic resonance imaging (MRI), positron emission tomography (PET) scans, and electro- diagnostic techniques

### IAPM-KS 1.12

Make judicious and resource-sensitive decisions about obtaining further investigative options

### IAPM-KS 1.13

Integrate multiple sources of information towards a multi-axial formulation of diagnosis-function-context

### IAPM-KS 1.14

Identify and explore the patient's issues, concerns, beliefs, goals and expectations with respect to their pain experience

### IAPM-KS 1.15

Evaluate whether further specialised assessment and/or management in sociological, psychological or biomedical dimensions is required, and arrange if necessary

### IAPM-KS 1.16

Develop understanding of the person and their family, in relation to their pain- associated limitations, losses and distress

## Preparing Management Plans

### IAPM-KS 1.17

Synthesise and justify management options based on evidence and the context in which the patient's experience of pain occurs

### IAPM-KS 1.18

Formulate a management plan tailored to the individual patient

### IAPM-KS 1.19

Recognise and respond to the uncertainty inherent in the practice of pain medicine, including but not limited to:

- Accommodating unpredictability
- Managing risk in complex patient care situations
- Varying practice according to contextual and cultural influences

### IAPM-KS 1.20

Adapt plans to the specific needs of the following patient groups experiencing pain:

- Children and adolescents
- Pregnant women
- Elderly patients (including those with dementia)
- Patients with mental health disorders
- Opioid-tolerant patients
- Patients with active or past substance abuse problems
- Indigenous patients and those from other ethnic and cultural backgrounds
- Patients with intellectual disabilities

### IAPM-KS 1.21

Understand the principles and application of placebo theory in patients with pain

### IAPM-KS 1.22

Critically discuss evidence-based psychological therapies related to pain medicine, including:

- Cognitive and behavioural therapies
- Mindfulness-based cognitive behaviour therapy; acceptance and commitment therapy; mindfulness-based stress reduction
- Narrative therapy

### IAPM-KS 1.23

Discuss in detail clinical pharmacotherapy in pain medicine, including but not limited to the use of:

- paracetamol
- non-steroidal anti-inflammatory drugs
- opioids
- tramadol and tapentadol
- NMDA-receptor antagonists
- local anaesthetic agents
- anticonvulsants
- antidepressants
- benzodiazepines
- alpha-2 adrenergic agonists
- anti-emetics
- laxatives

### IAPM-KS 1.24

With respect to opioids:

- Compare and contrast rational use in acute, chronic non-cancer and cancer-associated pain

- Critically discuss the evidence base for their efficacy in non-cancer pain
- Critically discuss commonly used dose equivalents for oral, parenteral, transdermal and neuraxial (epidural, intraspinal) routes of opioid administration
- Describe the pharmacokinetic and pharmacodynamic differences between immediate-release and slow-release oral opioid formulations
- Discuss the rationale for opioid rotation
- Describe the use and idiosyncrasies of methadone and buprenorphine
- Critically discuss opioid-induced hyperalgesia
- Discuss the assessment, prevention and symptomatic relief of adverse effects of opioids with particular reference to:
    - Constipation
    - Nausea and vomiting
    - Sedation
    - Confusion or delirium
- Discuss the long-term effects of the use of opioids including, but not limited to their immuno-modulatory, endocrine and psycho-cognitive effects
- Detail the factors that need to be considered when patients are discharged from hospital with opioids for ongoing management of acute pain
- Negotiate a plan for withdrawal from opioids where appropriate

### IAPM-KS 1.25

Critically discuss the evidence base for the efficacy and adverse effects of benzodiazepines and non-steroidal anti-inflammatories in the management of pain

### IAPM-KS 1.26

Discuss in detail physical treatment modalities related to pain medicine, including but not limited to:

- Principles of physical activity
- Principles of pacing and graded activity
- Passive and active therapy

### IAPM-KS 1.27

Discuss in detail the role of procedural treatment modalities related to pain medicine, including but not limited to:

- Peripheral injections
- Soft-tissue
- Intra-articular
- Neuraxial injections

- Ablative techniques
- Chemical
- Electrical/thermal
- Surgical
- Neuromodulation
- Neurostimulation
- Cerebrospinal fluid drug delivery
- Surgical interventions

### IAPM-KS 1.28

Critically discuss the use of complementary and alternative medicine (CAM) used in the community for the treatment of pain including:

- Evidence for mechanisms of action
- Analgesic efficacy
- Potential interactions and adverse effects

### IAPM-KS 1.29

Describe the application of multidisciplinary treatment principles in pain management programs

## Implementing Management Plans

### IAPM-KS 1.30

Explain to the patient the diagnostic formulation and the proposed management plan

### IAPM-KS 1.31

Negotiate a therapeutic alliance with the patient towards implementation of the management plan

### IAPM-KS 1.32

Supervise and monitor patient status and intervene as required to optimise patient care

### IAPM-KS 1.33

Differentiate those patients who require:

- Multimodal approach from one practitioner
- Multidisciplinary approach from a team
- Referral to other medical specialists and/or allied healthcare professionals

### IAPM-KS 1.34

Consult colleagues and other healthcare professionals to optimise patient wellbeing and enhance patient outcomes

**IAPM-KS 1.35**

Demonstrate the skills required to lead a multidisciplinary team in the implementation of a pain management plan

**IAPM-KS 1.36**

Incorporate as part of a comprehensive pain management plan, where indicated:

- Risk assessment
- Psychological treatment modalities
- Suitable physical therapies
- Rational pharmacotherapy
- Appropriate interventional treatment modalities
- Patient education

**IAPM-KS 1.37**

Demonstrate ability to rationalise and supervise complex pharmacotherapy in patients experiencing pain

**IAPM-KS 1.38**

Consider the use of alternative therapies to meet patient needs

**IAPM-KS 1.39**

Arrange appropriate follow up

## IAPM-KS 2.0 What is expected of trainees during training

### IAPM-KS 2.1

As part of their professional and personal development it is expected that trainees will:

- Contribute to the work of their training department.
- Set their learning goals for each quarter.
- Actively seek the clinical experience to meet training requirements and their learning goals.
- Reach performance standards appropriate to their stage of training.
- Meet other training requirements, including achievement of all learning outcomes, recording of experiences in their learning portfolio, attendance at courses, participation in training-related activities such as supervisory feedback and reviews, as well as completion of assessments.
- Actively participate in self-assessment and reflect on feedback received and strive to improve their performance in line with training requirements.
- Seek appropriate assistance and support in situations where difficulty is experienced or where novel clinical experiences arise.

### IAPM-KS 2.2

There is an opportunity for trainees to explore aspects of pain medicine not covered in detail during the core training stage. These optional topic areas (OTAs), include but are not limited to:

- Addiction medicine
- Chronic pelvic pain
- Consultation liaison psychiatry
- Paediatric pain medicine
- Pain medicine in aged care
- Palliative care
- Physical interventions
- Rehabilitation medicine