

Chronic Pain Management Services

Proposed Framework for Service Delivery and Workforce Planning for Ireland (Framework)

Purpose of this document

This document is intended to define the current management of chronic pain in the public healthcare sector in Ireland, identify areas of deficiencies in the service, and propose opportunities for development to optimise the care delivered to chronic pain patients. This framework should align with the goals of the Sláintecare strategy in delivering chronic disease management in the community with integrated pathways to hospital care. Chronic pain is a chronic disease entity, and the development of community based management services supported by hospital based specialist and specialised teams is the ultimate goal of this document.

The development of this document was a collaborative process including the Faculty of Pain Medicine, multidisciplinary stakeholders in the Irish healthcare system, consumers and funders. This proposed framework is specifically for chronic pain services in the Republic of Ireland, and reference to Ireland or the Irish population in this document is referring to the Republic only.

Led by

Faculty of Pain Medicine, Ireland

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Glossary

AHPs	Allied Health Professionals
CHOs	Community Health Organisations
CNS	Clinical Nurse Specialist
EMR	Electronic medical record
GBD	Global Burden of Disease (Lancet)
GPs	General Practitioners
HGs	Hospital Groups
HIQA	Health Information and Quality Authority
HSE	Health Service Executive of Ireland
IASP	International Association for the Study of Pain
IPCPS	Integrated Primary Care Pain Services
KPI	Key Performance Indicators
MDT	Multidisciplinary team
MOC	Model of Care
NCHDs	Non-Consultant Hospital Doctors
NTPF	National Treatment Purchase Fund
NSAIDs	Non-steroidal anti-inflammatory drugs
PMP	Pain management programme
PRIME	Prevalence, Impact, Cost of Chronic Pain study
RANP	Registered Advanced Nurse Practitioner
SMP	Self-management programme
WTE	Whole Time Equivalent

Introduction

Chronic pain is pain that persists or recurs for longer than three months.¹ It continues beyond the period of expected healing, and often becomes the sole or predominant clinical problem long after the original injury or illness. Indeed, chronic pain is now recognised as a 'disease in its own right'.² Regardless of the original injury or trigger, many physical, psychological and environmental changes are associated with the persistent pain and represent a distinct disease process. Pathophysiological changes like peripheral and central nerve sensitisation and alterations in the neuroimmune interface are important steps in the development of this disease.

However, the recognition of chronic pain as a chronic disease is often limited to the pain community of patients and clinicians. For many reasons, there is a lack of knowledge about the pathophysiology of chronic pain and the treatment options in the wider medical community. This lack of awareness accounts for the failure to reference chronic pain clinics or treatment pathways in the Model of Care documents published on the HSE website.³ Only the Palliative Care and Anaesthesiology Model of Care documents reference a chronic pain service. Further, a review document to help plan a programme for chronic disease prevention and management commissioned by the HSE specifically excludes chronic pain from a chronic disease analysis, stating "papers were excluded if they reported on ... long term conditions not specific to a chronic disease e.g. ... chronic symptoms (e.g. chronic pain, back pain, fatigue)". The exclusion of chronic pain management when considering integrated care pathways in chronic disease management may be costly for Irish society. The following paragraph details the reason for this.

According to the Lancet's Global Burden of Disease (GBD), low back pain is the number one cause of disability globally.⁴ It ranks ahead of other chronic diseases like ischaemic heart disease, diabetes, depression and migraine. The greatest levels of disability are seen in the 25 to 64 year age groups with a major socioeconomic impact on the work force. The prevalence of chronic pain in Ireland is 35.5% according to the PRIME Study.⁵ The leading site of pain was the low back (47.6%). Consistent with the GBD results, the PRIME Study demonstrated a high level of disability in the chronic pain group with 12% off work or on reduced work because of

the pain. A sub-analysis of the PRIME study revealed the significant cost associated with chronic pain. The cost of chronic pain per patient was €5,665 per year extrapolated to €5.34 billion or 2.86% of GDP per year.⁶ This large sum accounts for direct cost (e.g. treatment, outpatient visits) and indirect (e.g. benefits, loss of wages).

Chronic pain is a disease with a significant disability burden and socioeconomic cost, and it is not on the radar of the policy makers and funders in the Department of Health and the HSE. The benefits of early diagnosis and treatment of chronic pain is well documented with better outcomes and quality of life for patients, and reduced healthcare costs and Emergency Department attendances.⁷ The risks of a delay in treatment include increased disability, deterioration in physical and mental health, opioid dependence and addiction, increased mortality and suicide risk.⁸⁻¹¹

Historical Background to the Development of Pain Management Clinics

Up until very recently, the historical attitude to pain of any cause, was to endure it and almost celebrate it as a sign of being alive. The emphasis was to draw meaning from the pain and suffering rather than to relieve pain.

The early 1800s saw a change in societal attitudes with an emphasis on the individuals experience and rights. This placed a greater importance on trying to relieve pain rather than promoting a need to endure pain. Famous surgeons of the time were recognised for their ability to operate rapidly with a target to minimise suffering. This principle led to the development of surgical anaesthesia with William T. G. Morton demonstrating anaesthesia with ether for the first time in 1846.

Even in the face of these great advances, some religious leaders opposed the management of pain in the perioperative period claiming that it was key to strengthen faith and teach self-sacrifice to the labouring mother. Some surgeons were concerned that the reduction in pain may negatively impact the patients healing post-surgery.

However, over the next 50 years, surgical anaesthesia was refined and became more common place. The relief of surgical pain was a positive secondary outcome behind the surgical cure. The endeavour to relieve this pain was delegated to the Anaesthetist in most circumstances.

This explains the central role Anaesthetists have played in the development of pain management practices over the last 150 years.

Opioids (e.g. morphine, heroin) were used as standard acute pain treatments during the 1800s but toward the end of the century an awareness about the risks of addiction and tolerance with opioids encouraged authorities to limit their widespread use. Around the same time aspirin was developed from salicylic acid a plant compound and became a popular pain treatment. Along with the development of safer anaesthesia agents and practices, the management of acute post-surgical pain improved a lot.

However, the same Anaesthetists were consulted on more complex pain issues. During the American Civil War, World War I and World War II, these doctors observed significant trauma and severe chronic pain issues. They also described pain syndromes like phantom limb pain and complex regional pain syndromes (CRPS) for the first time. Henry K. Beecher, an American Anaesthetist, noted that injured soldiers often reported lower levels of acute pain compared to civilians with similar injuries. He theorised that the intensity of pain was not just down to the physical injury but must have been influenced by cognitive and emotional elements too.

Another Anaesthetist working during World War II, Dr John Bonica, pioneered multidisciplinary team management of complex chronic pain syndromes. He introduced this model of managing chronic pain patients in routine clinical practice and was instrumental in establishing the International Association for the Study of Pain (IASP).

The early years of pain management in the UK and Ireland were interested Anaesthetists providing nerve blocks to patients in severe pain. In 1971, The Intractable Pain Society of Great Britain and Ireland was established to represent these interested Anaesthetists. An emphasis was placed on developing pain services from nerve block clinicals to a more sophisticated MDT model as advocated by Dr Bonica.

Dr H Raftery was an Anaesthetist from Dublin who attended these early meeting and he established the first pain management clinic in St Laurence's Hospital Dublin in 1977. Since then, pain services have developed in hospitals around Ireland to meet the needs of chronic pain patients. The early clinics primarily offered an interventional pain service. However, over

the last 3 decades they have adopted a more holistic approach and deliver biopsychosocial treatments plans for patients including pain management programmes.

Up to now, the majority of chronic pain assessment and treatment has taken place in the hospital setting. With the introduction of Slainte Care, chronic pain assessment and treatment will begin in community based teams. Pathways to facilitate this transition from hospital-based care to community care are being designed.

Current Structure

Chronic pain management in Ireland is largely delivered in hospital-based clinics. While there will be some examples of community based programmes, most patients will be reviewed by their GP with chronic pain (e.g. low back or neck pain) as the presenting complaint. They will have investigations with their GP and receive analgesic medications including paracetamol, non-steroidal anti-inflammatories (NSAIDs), opioids and adjunctive agents for neuropathic pain. Many GPs will not have access to the resources to deliver pain education to the patients. The community and practice Nurses are unlikely to be involved in managing the patients pain.

Patients are often referred by the GP for community physiotherapy. The knowledge of the community physiotherapist about chronic pain pathophysiology, pain education and specific rehabilitation approaches for chronic pain patients can vary. Access to psychology in the community is limited and is unlikely to be delivered by a chronic pain informed MDT.

If the patient is not making adequate progress, they will be referred onto a hospital-based Consultant for further input and treatment. This may be a Pain Specialist, Rheumatologist, Neurosurgeon or Orthopaedic Surgeon. The waiting time to see this specialist will be on average 1-2 years. The process of further investigations and treatment planning will proceed, often with another 1 year wait to the first treatment. The availability of chronic pain-trained Physiotherapy/Nursing/Psychology/Medical staff within the hospital is not guaranteed, and the likelihood that that the patient will meet the right team to help with a pain diagnosis and effective treatment plan on the first visit is low. This may happen after a period of time of failed treatments and re-referrals within the hospital system with further 1-2 year waiting periods for each new Consultation.

The process is ineffective and it could realistically take an chronic pain patient 7-8 years before they attend a chronic pain clinic. This may be the first time they receive chronic pain education. This delay in effective MDT care is a major risk factor for disability, mental health problems and loss of employment. For the patient to bridge this gap, it will require a GP or community physiotherapist with a special interest in chronic pain to expedite the most appropriate care or for the patient to access private care.

International Best Practice

There is a drive towards community-delivered chronic pain management as the primary intervention in many countries. Excellent examples of success stories on local or national levels have been reported in the UK, Australia, Canada and the USA.^{7,12-14} It recognises that well trained and experienced professionals can work in MDTs and provide effective pain treatment for the majority of chronic pain patients. It also recognises that the model of seeing all people with chronic pain in a hospital-based clinic and repeating interventional treatments over the long-term is not sustainable as patient expectations and rates of chronic pain increase (e.g. older population).

National Pain Strategies in the UK, Canada, USA and Australia promote the development of “integrated primary care pain services (IPCPS)”.¹⁵ A major emphasis is placed on the delivery of care in the community by a MDT including doctors (GPs with a special interest or Pain Specialists), nurses, physiotherapists and psychologists. These teams will investigate, diagnose, plan and deliver treatment effectively for the majority of chronic pain patients. An experienced member of this team will perform an important “Triage” role. This could be an experienced doctor, physiotherapist or nurse. If they believe the patient requires more specialised care they can bypass the primary care level and refer onto secondary or tertiary care.

Secondary care pain services or specialist pain services will manage patients with more complex needs. In most of the above systems, this is a hospital-based service with an experienced MDT. They can provide most interventional pain therapies, deliver more advanced treatment pathways, and have links with other relevant specialties (e.g. Neurology, Gynaecology).

Tertiary care pain services or specialized pain services offer care for specific pain syndromes (e.g. pelvic pain, paediatric pain, trigeminal neuralgia) or plan specific interventions (e.g. neuromodulation). The team is a multi-disciplinary group with sub-specialist interest in the relevant pain syndrome. In England, these teams have a separate national funding source in addition to the local funding specialist pain clinics receive from their Trust.¹⁶

While there are 3 distinct levels in these models of care, collaboration and integration between the pain teams is expected to optimize efficiency and reduce duplication of investigations and treatments. The success of these Models of Care (MOC) depend on:

- **Education:** Patients, GPs and pain team members. Using eHealth resources can help in the delivery of this education.
- **Leadership** from pain medicine specialists to shape, mentor and guide the community pain service teams is important.
- **Triage** processes in place to efficiently place patients with the most appropriate team.
- Standardised **Pathways** and **Templates** to be used by all pain services, and using **electronic medical records (EMR)** to streamline the care of these patients throughout their health journey.
- **Outcome measurement** with constant audit and quality improvement to optimize the success of the MOC.
- **Key performance indicators (KPIs)** relevant to the service and the patient population should be identified to help guide further developments.

Future of Chronic Pain Management in Ireland

The Committee on the Future of Healthcare in Ireland have laid out a plan to reform the health service in Ireland in the Slainte Care Report.¹⁷ This report emphasises the importance of integrated care pathways in the future management of chronic disease. These pathways should be based in the community or primary care with links to secondary and tertiary care as required. The report proposes, “that the best health outcomes and value for money can be achieved by re-orientating the model of care towards primary and community care where the majority of people’s health needs can be met locally”. Chronic pain is a disease process that is ideally suited to community based management in the majority of cases.

The goals and values of Slainte Care mirrors the international move towards IPCPS with tiered supports in specialist and specialised pain services. This framework will adopt this structure and will explore the optimal method of delivering this model and the additional resources required.

The aims of the framework for Chronic Pain Management include:

- Highlight the importance of chronic pain services and facilitate the inclusion of this framework in future Integrated Care Pathways of chronic disease.
- Champion and facilitate community-based care for all chronic pain syndromes.
- Hospital-based secondary or tertiary care should be timely, efficient and time-limited with a regular review of case suitability for discharge to community teams.
- Align the patient with the right clinical team, in the right environment, on the right care pathway, in a reasonable time-frame.
- Facilitate an early and accurate diagnosis of the patient's chronic pain syndrome.
- Develop a patient-centered approach that prioritises the goals and outcomes most valued by the individual patient.
- Emphasis a holistic approach to care and strongly promote self-management strategies.
- Promote the development of local pathways for common pain syndromes and national pathways for more rare or complex cases.
- Help to predict resource requirements for different services, and reduce unnecessary investigations and duplication of testing.

National audit of chronic pain management services

Introduction

A national audit of the activity in the chronic pain management clinics in the Republic of Ireland was commissioned by the Faculty of Pain Medicine to inform the proposed framework design. The framework group highlighted the importance of baseline data to confirm the current management of chronic pain in Irish hospital groups, and project the resources that would be required to develop and enhance the care of Irish patients with chronic pain.

Methods

The audit was led by Prof Dominic Harmon, with the assistance of Dr Andrew Purcell, Dr Keshava Channappa, and Dr David Moore. The audit was conducted over the time period of July to September 2020. Baseline data on out-patient department (OPD) waiting times and Day Case waiting times were obtained from the National Treatment Purchase Fund (NTPF) database (January 2020). The NTPF is a corporate body with functions and responsibilities as set out under Statutory Instrument 179 - National Treatment Purchase Fund (Establishment) Order, 2004 and the Nursing Homes Support Scheme Act (2009).

Clinical leads for each pain department, identified by the NTPF database or known to the investigators, were contacted by the study team. They were informed of the reason for the data collection, and they were assured that their data would be anonymised as much as possible to give an overview of practices on a Hospital Group or National basis without identifying individual hospitals or clinicians. If they agreed to participate they were sent a template of standard questions. Information was sought on the number of pain team members in each department including number of Consultants in Pain Medicine, Non-Consultant hospital doctors (NCHDs), Nurses, Physiotherapists, Psychologists, Pharmacists, and Administrators. The fraction of their weekly working schedule committed by each team member to chronic pain management was quantified as whole time equivalents (WTEs). The delivery of a regular pain management programme (PMP) or self-management programme (SMP), and the availability of department office space were recorded. Activities like

department multidisciplinary meetings, audits, research and publication, neuromodulation, intrathecal pump therapy, and tertiary referral services were recorded.

Results

There are 7 hospital groups in the Republic of Ireland. Every hospital group has at least one chronic pain service. There are 17 separate hospital-based chronic pain services currently running.

Waiting times (OPD)

Sixteen of the 17 have up-to-date data recorded by the NTPF. In January 2020, a total of 11,932 people were waiting for a new patient appointment in one of the chronic pain clinics. The number of patients waiting between 12-18 months for their first appointment was 1912 (16%). The number waiting over 18 months for their first appointment was 3034 (25%).

Not all clinics had such long waiting times. Looking at individual sites, 6 services had no patients waiting longer than 18 months, and 2 clinics had no patients waiting longer than 12 months. Three clinics had over 40% of their patients waiting over 18 months for a first appointment.

Waiting times (Day Case/Procedures)

This waiting list looked at the number of patients waiting for their first treatment after their initial consultation and the length of time they were waiting. This was most likely an interventional treatment. A total of 3,496 patients were waiting for their first treatment. The number of patients waiting between 12-18 months was 403 (12%) and 196 (6%) were waiting more than 18 months.

As with the OPD data, there was a wide variation in performance in each site. Three services did not report treatment numbers, and do not appear to carry out interventional treatments on site. Only 2 services had waiting lists for treatments under 12 months for all patients. One service had over 45% of its patients waiting more than 18 months for treatment.

Doctors

The total number of Consultants working across the 17 hospitals was 28, with an average of 1.65 Consultants per service. It is possible that this could be a slight over-estimate as some of these doctors could cover more than one service and be double counted. Eight services had 1 Consultant only, 7 services had 2 Consultants, and 2 services had 3 Consultants.

Only 3 services had Consultants who worked full-time in the chronic pain service (WTE = 1.0). All other services had Consultants who worked some of their time in the Anaesthesiology service. The WTE numbers for Consultants in each service ranged from 0 up to 2.6. The mean across the 17 hospitals was 1.05.

Based on the 2016 Census data the population of the Republic of Ireland was 4,897,853. Therefore, the number of Pain Consultants per 100,000 population is 0.57. The Consultant WTE is lower at 0.36 per 100,000.

Most services had at least 1 NCHD working full-time. Three services had no NCHD, 2 services shared 1 NCHD, 6 had 2 NCHDs, and 1 service had 4 NCHDs. Seven of the NCHDs were conducting advanced training at Special Interest or Fellow level in chronic pain.

Nursing

A total of 31 Nurses were working across the 17 pain services. Three of these nurses were at staff nurse level, 24 were a Clinical Nurse Specialist (CNS) or Manager (CNM), and 4 were an Advanced Nurse Practitioners (ANP). Five services had no Nursing WTE, with a mean of 1.56 Nursing WTE, and 2 services had a Nursing WTE of 4.

Physiotherapy

The total number of Physiotherapy WTEs working in the pain services was 8.03. This gives a Pain Physiotherapy WTE of 0.16 per 100,000 population. Eight services had no Physiotherapist on the pain team, 3 services had less than 1 WTE, 5 services had 1 WTE, and one service had 2 full-time Physiotherapists.

Psychology

The total number of Psychology WTEs working in the pain services was 8, with only 5 services having a full-time Pain Psychologist. This gave a national WTE of 6.2 or 0.13 per 100,000 population.

Pharmacy

No service reported regular sessional commitments from Pharmacy.

Complete multidisciplinary services

Only 5 out of 17 services (29%) have regular pain sessions from medical, nursing, psychology and physiotherapy personnel.

Pain Management Programmes (PMP) and Self-Management Programmes (SMP)

Five services run regular PMPs, 4 services run regular SMPs, and 8 services have no such programmes.

Administration Support and Office Space

Administration or secretarial support was available in all 17 services. The mean Admin WTE was 1.24 with a range from 0.3-3.0. Only 10 of the services reported the availability of office space for the team members.

Clinical activities

All services have at least 1 out-patient department (OPD) clinic per week. The definition of 1 OPD session was 1 half-day clinic. The mean number of clinics per service was 2.22. This ranged from 1 up to 6.

A regular departmental MDT meeting took place in 12 of the 17 services. Nine of the services regularly attended other MDT meetings including Palliative Care and Oncology (9), Gynaecology and Pelvic Pain (2), Neurology and Stroke (2), Rehabilitation Medicine (1), Spinal surgery (1), Rheumatology (1).

Sixteen of the services report external referral pathways from other hospitals for complex pain management. Two services run subspecialised clinics only in Paediatric Pain (1) and Pelvic Pain (1), while others provide referral services for CRPS (5), Neuromodulation (4), Intrathecal pump implant or management (3), PMP (2), Trigeminal Neuralgia (1), Haem Oncology cases (1), Pelvic Pain (1). Six services provide a neuromodulation service with 5 of these services located in Dublin. Seven services implant and replace intrathecal pumps with 5 services located in Dublin, and 2 additional services provide pump refill services only.

Eleven services have published in-house protocols to guide patient management in the areas of sickle cell crisis (2), headache management (1), acute trigeminal neuralgia (1), neuromodulation (1).

Audit and research

Sixteen of the services engage in regular audit of their activities and 11 services published their research within the last year.

Conclusion

This audit offers useful insights into the composition of pain management teams in the Republic of Ireland and the clinical activity within these teams. This data can be compared against International practices and targets to allow benchmarking of our services and offer guidance on areas to focus extra resources.

Proposed Framework for Service Delivery and Workforce Planning

Current Practice in Chronic Pain Management

The delivery of pain management services in Ireland is similar to many other health services and follows a tiered approach in primary, secondary and tertiary care. This tiered approach is advocated in many national pain strategy documents and models of care as the optimal way to deliver effective pain management services.

In Ireland, most of the primary care pain management is delivered by GPs or physiotherapists and is often not a multimodal or multidisciplinary approach. Also, the level of interest and knowledge in the biopsychosocial approach to managing pain syndromes varies significantly amongst clinicians in primary care. For a MDT approach to pain management, patients are often on long waiting lists to attend secondary care services. As evident from the national survey, only 29% of secondary care teams employ all the required members of a MDT to deliver effective care for chronic pain patients. Also, their waiting times to first consultation (41% waiting more than 12 months) and to first treatment (18% waiting more than 12 months) are far too long.

Some patients require the input of multispecialty teams in tertiary care services. Many pain services in Ireland indicate an interest and actively manage these complex cases. Sixteen services (94%) facilitate subspecialty clinics with a tertiary referral pathway for the following indications:

- Paediatric Pain (1)
- Pelvic Pain (2)
- CRPS (5)
- Neuromodulation (4)
- Intrathecal pump implant or management (3)
- PMP (2)
- Trigeminal Neuralgia (1)
- Hematology Oncology cases (1)

However, only 5 of these clinics have the minimum complement of MDT members expected in a secondary care, specialist pain service. For an effective tertiary referral service, more resources will be required in specific services to optimise the quality of care that can be delivered.

The 3 levels of pain management services in Ireland can be summarised as:

- Primary care: Community based pain management services
- Secondary care: Specialist pain management services
- Tertiary care: Specialised pain management services

The basic healthcare structure exists to deliver an effective pain management service in Ireland. However, additional resources are required at all levels (primary, secondary and tertiary care) and an emphasis needs to be placed on collaborative management pathways with complete MDT member input. Care pathways for specific chronic pain syndromes will be developed by a multidisciplinary group led by the HSE Scheduled Care working group.

An excellent example of the above is the development of the low back pain management strategy designed by NHS England.¹⁵ It lays out an integrated tiered approach across primary, secondary and tertiary care services to deliver rapid, evidence-based, effective care of patients with low back pain. It aims to minimize chronicity and disability associated with inadequate management of these patients, while reducing healthcare costs associated with unnecessary tests (e.g. MRIs) and treatments. However, to deliver this framework, there is a need for MDT teams including medical, nursing, psychology, physiotherapy and administration personnel at all levels and working in integrated pathways.

Primary care: Community based pain management services

Most patients with a chronic pain syndrome will initially present to their GP. Their GP will often make a diagnosis following the required investigations and institute a management plan.

If multidisciplinary care is required, the patient should be referred to a community-based pain management service. This service should be delivered by a multidisciplinary team with physiotherapy, psychology and nursing input at a minimum. Slainte Care planning includes an Integrated MSK Service in the community that is ideally positioned to deliver this care. The team does not necessarily require medical leadership, but should have medical input from either a GP with a special interest in chronic pain management or a Consultant in Pain Medicine.

The team leader (Physiotherapist or Nurse) should serve a triage function. They will need to have significant experience in chronic pain management to manage this role. They will receive referrals from local GPs or other community-based teams and determine if they are suitable for community care or if they require onward referral to secondary or tertiary care. This decision making process will be facilitated by guidelines and pathways for specific chronic pain syndromes. The community teams should assess the needs of the patient and plan a multi-modal management plan for the chronic pain patient. They should have adequate training, experience and access to resources to deliver this management plan.

Community based teams as described above are uncommon in the Irish health care system at the moment. It should be the responsibility of the Hospital Group (HG) to resource and direct the development of community pain management teams. The established secondary and tertiary pain management teams should be involved in the design of these community services and should agree clear treatment pathways and governance structures.

Patients should move efficiently between primary and secondary care teams as required with sharing of information between teams.

Onward referral to a specialist pain management service should be considered if:

- The patient is not making adequate progress in their pain management
- The diagnosis is unclear and more complex investigations are required
- Interventional therapies are required
- More specialist and comprehensive integrated care is required (e.g. specialist pain management programme)

- Specialist team input is required (e.g. paediatric pain team)

Secondary care: Specialist pain management services

The majority of pain management teams in Ireland provide a specialist pain management service. However, the national audit highlights that many teams do not have a full MDT team complement (29% meet minimum requirements) and have inadequate resources to see and treat patients in a timely manner.

A specialist team should be multidisciplinary. The members of the team should include:

- At least 3 Consultants in Pain Medicine. These Consultants should hold the FFPMCAI qualification or equivalent. They will most likely be a Consultant Anaesthesiologist with anaesthesiology and pain medicine sessions in the weekly schedule. A team led by a lone medical practitioner should be discouraged, and teams with only one Consultant should aim to amalgamate or collaborate with another team within their hospital group.
- Physiotherapy
- Nursing
- Psychology
- Administration team
- Optional: Occupational therapy, Pharmacy, Social Work, and other medical or surgical specialties.

Each member of the pain team should have dedicated weekly sessions for the pain service. They should have completed discipline specific training in the management of chronic pain patients. All team members should contribute to clinical governance, teaching, audit and research activities.

Each team should designate a Clinical Lead who should be a member of the clinical team and this role should be rotated every 2-3 years. The Clinical Lead should represent the interests of the team and the chronic pain patients they care for.

The specialist team should develop strong collaborative links with the community-based pain management teams and regularly review common patients.

The specialist team should have the skills and resources to:

- Perform comprehensive assessments of chronic pain patients and plan complex treatment pathways for patients.
- Identify patients that require tertiary care.
- Deliver multidisciplinary and multimodal pain therapies including pain management programmes, self-management programmes and exercise based programmes.
- Provide leadership and clinical governance to community-based teams.
- Perform most interventional pain management treatments

The specialist team should agree referral pathways for patients who require tertiary care. The pathways should designate a tertiary pain service and agreed referral criteria and waiting times for specific patients or pain syndromes. These criteria may include (but are not limited to):

- Spinal cord stimulation assessment and implant
- Intrathecal pump implant
- Paediatric pain
- Chronic pain patients with complex needs (e.g. addiction issues, communication issues, co-existent illnesses)
- Specific pain syndromes requiring multispecialty care (e.g. abdominopelvic pain syndromes, facial pain syndromes).

This level of care can be provided in Model 2, Model 3, and Model 4 Hospitals.

Tertiary care: Specialised pain management services

Specialised pain management services are required to deliver care to more complex patients and/or deliver more advanced treatments. Managing cases in this way optimises the patients care and outcomes. The clinicians delivering the care in these services are more experienced due to the frequency and high volume of complex cases. These services will also continue to

provide a specialist, general pain management service in parallel to their specialised service. As such, they will collaborate closely with local community-based pain management services to optimise the care of the general pain patients.

The team should be multidisciplinary including:

- Consultants in pain medicine: There should be at least 2 Consultants who declare a special interest in the sub-specialty the patient is referred for. All doctors should hold the FFPMCAI or equivalent. There should be a minimum of 3 Consultants on the pain team who provide general pain management services.
- Specialist nurses at CNS and/or ANP grades with experience in managing sub-specialty patients.
- Physiotherapist with experience in managing sub-specialty patients.
- Clinical Psychologist with experience in managing sub-specialty patients.
- Administration team including designated business manager to develop and co-ordinate the service.
- Regular input from relevant specialists at joint clinics and MDT meetings – Neurosurgeons, Spinal Surgeons, Gynaecologists, Urologists, Psychiatrists, etc.
- The team should appoint a Clinical Lead who is a member of the clinical team and holds this position for 2-3 years. It is the responsibility of the Clinical Lead to oversee the development and running of the service to effectively meet the complex needs of the sub-specialty pain patients.

The treatments or syndromes that will require tertiary level care (estimated number of services required for the Irish population):

- Spinal cord stimulation service (3)
- Intrathecal pump service (2)
- Facial pain including trigeminal neuralgia (1)
- Paediatric pain service (1)
- Complex psychosocial services with option for inpatient PMP and rehabilitation services, specialist Psychiatry input, etc. (1)
- Visceral (abdominopelvic) pain service (2)

The tertiary pain service should have the personnel and resources to deliver comprehensive care for the most complex patients with chronic pain. There should be cover within each professional group so the service is not disrupted by team members on holidays or sick leave. There should be regular (weekly/monthly) multispecialty clinics for the sub-specialty patients and MDT meetings. The service should also engage in regular audit and research on the subspecialty topic and collaborate with other Irish and international services with similar interests.

The service should have specific pathways agreed with secondary and primary care to facilitate efficient and timely transfer of patients between different services.

The Faculty of Pain Medicine should work with the HSE to identify suitable sites for specialised services, and help that service to develop in line with this framework. At the moment, it is clear that a majority of pain services in secondary care are attempting to deliver care to these complex patients without the required resources. This is because of the absence of designated and funded tertiary referral services.

Identification of an appropriate service will depend on prior experience and outcomes, skill mix in the clinical team, and geographical location. To facilitate national referral pathways to these services a separate, centralised funding stream will have to be in place in addition to the baseline funding from the Hospital Group.

Specific pain syndromes (e.g. Primary Erythromelalgia) or pain treatments (e.g. deep brain stimulation) are rare and would not be financially viable to provide within this country for the Irish population. For these situations, the Treatment Abroad Scheme (TAS) can be accessed to facilitate treatment in specialised services abroad.¹⁸

This level of care can be provided in Model 3 and Model 4 Hospitals.

Provision of acute pain services

Acute pain management and service organisation is beyond the scope of this proposed framework. It is addressed in the Model of Care for Anaesthesiology.¹⁹

Staffing of Chronic Pain Teams

Medical Consultants

The pain medicine Consultant is normally a Consultant Anaesthesiologist with a special interest in chronic pain. The Consultant should be trained and experienced in the management of chronic pain patients. The standard of training advised by the Faculty of Pain Medicine is at least two years completed as a clinical fellow in recognised training posts plus successful completion of the FFPMCAI exam.

A minimum of 3 Consultants should work in the service together. This allows for cross-cover to maintain a functioning service and peer support. The Consultant must be allocated clinic space, interventional sessions, administration support and the required MDT members.

Most Consultants will continue to practice regular weekly anaesthesiology sessions. They will have ongoing on-call commitments to the anaesthesiology rota. They will need to maintain CPD as per Irish Medical Council guidance in both pain medicine and anaesthesiology. There is scope in specific situations (e.g. specialised services or for non-anaesthesiology trained Consultants) to advertise full-time Consultant in Pain Medicine posts with no anaesthesiology sessions.

Consultants working in specialised services that manage intrathecal pumps should engage in a 24 hour on-call rota. At least 2 Consultants within this service will be required to take pain in this on-call rota.

The Consultant must take an active role in education of trainees, medical students and other professionals.

There are 27 consultants delivering chronic pain medicine services across all seven hospital groups. All 27 of these practitioners have specialty training in Anaesthesiology and Pain Medicine. These practitioners represent 0.55 consultants per 100,000 of the population. They are delivering 16.6 whole time equivalents (WTEs) in total which equates to a national average of 0.34 WTEs per 100,000 population.

The average number of consultants per 100,000 of population across the UK is 0.92 and consultant numbers in Australia and New Zealand are 1.3 per 100,000 of population.²⁰ This equates to 1.6 to 2.3 times more Consultant numbers than Ireland. These services also have more highly developed community teams and hospital-based MDTs to support their work.

To progress this framework, expansion of consultant numbers by a minimum of 26 individuals is required. This will achieve a basic standard of 3 Consultants per pain service and 4 Consultants in the two centres that care for a large number of intrathecal pump patients. Design of these posts should be guided by the FPM and the HSE to make sure they are in-line with the requirements and goals of the national strategic plan.

General Practitioners

GPs are most likely the first clinical point of contact for the chronic pain patient. GPs will investigate the source of the pain with a view to ruling out serious pathology. This is a crucial step before proceeding with referral onto community-based pain services.

The patients will develop an understanding of their pain based on the information delivered by the GP. Therefore, it is important to deliver education to all GPs about the pathophysiology of chronic pain, effective treatment programmes, and available resources. This teaching should be delivered at medical school level and during the GP training scheme.

Nurses

The majority of nurses in pain services in Ireland are clinical nurse specialists (CNS). They have a registered general nurse qualification and are engaged in or have completed a MSc in Pain Management. The CNS works to deliver the treatment plan for the patients, follow-up

patients in clinic and on wards, and educates both patients and other health care workers on chronic pain management.

The Registered Advanced Nurse Practitioner (RANP) role is a higher grade that allow for the development of nurse-led services. These may include infusion or acupuncture clinics, intrathecal pump refill and neuromodulation programming clinics.

There are 26.5 WTEs for nursing in chronic pain medicine departments nationally. This amounts to on average 0.48 WTE/100,000 population. There are no guidelines on the optimal number of nursing posts and it will depend on the complexity of the service. Specialised services should introduce RANP posts to facilitate the development and coordination of more complex pain pathways. CNS posts should be developed in the community and specialist services to facilitate patient and professional education, coordination of treatment plans, and follow-up care.

Physiotherapists

The Physiotherapist promotes exercise therapy for the chronic pain patient which has a high level of evidence for positive outcomes. A physiotherapist trained in pain management is referred to as a “psychologically-aware physiotherapist”. They have an understanding of psychological interventions like ACT, CBT and motivational interviewing. They can use this knowledge to challenge unhelpful beliefs about the pain, fear-avoidance behaviours, and can introduce the idea of pacing activities.

Physiotherapists have advanced training in assessing patients with chronic pain, diagnosing and planning treatment. They play an important triage role in community-based teams and can assess a large percentage of new presentation chronic pain patients, in particular those with chronic musculoskeletal pain. They also have an important role in educating patients in self-management strategies and also in education of other healthcare professionals.

There is a role for two different levels of expertise.

1. For Physiotherapists working in specialist pain settings, and those who have leadership/senior roles in the design of pathways dealing with persistent pain (e.g. musculoskeletal triage and advanced practice posts in pain, orthopaedics, rheumatology) there is a need to ensure adequate formal training (e.g. MSc as minimum standard) and ongoing training/CPD.
2. For Physiotherapists working in non-specialist settings (e.g. integrated MSK clinics in primary care), ensuring they all have a postgraduate qualification in pain is not feasible. However all Physiotherapists could benefit from training (pre-qualification and post-qualification) which embeds the bio-psycho-social model of pain in their practice. For example, they should have access to training and resources which allow them to upskill and design/adapt their services in response to the evidence, local considerations and available resources.

There are 8.03 WTE in total for specialist chronic pain physiotherapy services in Ireland. This amounts to on average 0.15 WTE/100,000 population per hospital group. This is a very low number. There should be at least 1 WTE physiotherapist in each of the 17 specialist pain services. In addition, each of the 7 hospital groups should have at least 1 physiotherapist specialising in chronic pain leading a community based pain service. Additional posts will be required for the development of specialised pain services. This is an expansion of numbers by 16 at a minimum.

Psychologists

The psychologist is responsible for delivering psychological therapies for chronic pain patients and also for educating other non-psychology team members to be psychologically-aware during their interactions with chronic pain patients. They can promote a common language and a unified message from all team members.

The psychologists working in pain services are qualified clinical psychologists. The training path to becoming a pain psychologist is experiential and based on a mentorship or apprentice model. They have regular peer support and mentoring, and deliver their therapies in face-to-face and group sessions.

There are 6.2 WTE for clinical psychology services available nationally for chronic pain services. This amounts to on average 0.1 WTE/100,000 population per hospital group. Similar to the physiotherapist posts, each pain service should have at least 1 WTE psychology post. This will require an expansion of psychology posts by 18 at a minimum.

Professional education

The pain team members will undergo specific pain management training and mentoring during their training. However, wider education of all healthcare professionals is essential to improve the understanding of chronic pain, the biopsychosocial approach to management, the roles of the MDT members in managing these patients, the evidence-based treatments available, and the psychological implications of a chronic pain syndrome.

The Faculty of Pain Medicine should collaborate with the Universities and the Irish College of General Practitioners (ICGP) to develop a comprehensive pain medicine curriculum. The FPM should advocate for the appointment of a Senior Lecturer role in Pain Medicine in each University. This appointee will be responsible for designing and delivering the pain curriculum at undergraduate and post-graduate level for all MDT members. This should take the form of a basic curriculum for all healthcare professionals and more advanced programmes (e.g. diploma, MSc) for clinicians planning to work in chronic pain MDTs.

Monitoring - Quality Improvement

Time to care

“Standards for access times and activity planning that allow sufficient time to assess and care for people in pain.” IASP

A key performance indicator (KPI) of an chronic pain service will be time from referral to first treatment. The IASP Task Force on Wait-Times have published recommendations as follows:

- **Acute painful conditions should be treated immediately** (e.g. sickle cell painful crises and pain related to trauma or surgery)
- **Most urgent (1 week):** A painful severe condition with the risk of deterioration or chronicity, such as the acute phase of complex regional pain syndrome (CRPS), pain in children, or pain related to cancer or terminal or end-stage illness.
- **Urgent or semi-urgent (1 month):** Severe undiagnosed or progressive pain with the risk of increasing functional impairment, generally of 6 months' duration or less (back pain that is not resolving or persistent postsurgical or post-traumatic pain).
- **Routine or regular (8 weeks):** Persistent long-term pain without significant progression.

NHS England have a waiting-time target that is universal for all clinics, not just pain services. There is a maximum wait time of 18 weeks from referral to first treatment. There are financial penalties for the pain service if they regularly breach this waiting time.

The waiting-time target in Australia and Canada is less than 3 months for routine chronic pain presentations, with more urgent pain presentations requiring treatment within 1 month.

The Slainte Care Report has set waiting-time target for all clinics. No-one should wait more than:

- 12 weeks for an inpatient procedure
- 10 weeks for an outpatient appointment
- 10 days for a diagnostic test

Achievement of these Slainte Care targets would bring Irish chronic pain services in line with International standards. However, the audit data of Irish pain services (Jan 2020) shows a total of 11,932 people were waiting for a new patient appointment in one of the chronic pain clinics. The number of patients waiting between 12-18 months for their first appointment was 1912 (16%). The number waiting over 18 months for their first appointment was 3034 (25%). Following the pain clinic appointment, a total of 3,496 patients were waiting for their first treatment. The number of patients waiting between 12-18 months was 403 (12%) and 196 (6%) were waiting more than 18 months.

Taking the above into account, a large percentage of patients are waiting over 2 years from referral to first treatment. It is impossible to reduce this to less than 18 weeks with the current pathways used by the pain services.

The reorganisation of community-based integrated MSK services will offer an opportunity to reduce wait-times. The time will start at the point the GP refers to the community team or “Triage” Physiotherapist or Nurse. The time will finish at the point of treatment (e.g. physiotherapy-led rehabilitation programme, injections).

Recommendations

1. Chronic pain services in their current state should aim for:
 - a. OPD new patient appointment wait-times of less than 12 months
 - b. Day-case procedure wait-times of less than 12 months
2. Chronic pain services within the same Hospital Group should partner and work with stakeholders in their Community Health Organisations (CHOs) to plan a community-based integrated chronic pain service. A gradual transition from the current model to a community-based pain service should be developed with new waiting-time targets of less than 10 weeks for OPD review.
3. Faculty of Pain Medicine should encourage their Fellows to pilot alternative referrals pathways, and disseminate successful examples to their Fellows to facilitate widespread implementation of new innovations.

Outcomes

“Outcomes from care should be routinely measured including patient safety, patient experience, and clinical effectiveness, drawing upon IMMPACT’s recommendations.” IASP

All pain management teams should collect data on clinic performance and patient outcomes to guide quality improvements. The following data should be gathered:

- Serious adverse events with team discussion and problem solving in a morbidity/mortality meeting.
- Patient satisfaction and global perceived effect
- Patient outcome measures to assess parameters like pain, function, and mood post treatment
- Time from referral to first appointment
- Time from first meeting to first treatment
- Ratio of new to follow-up patients attending clinic

Depending on the pain service and the patients that attend the clinic, different outcomes would be deemed acceptable to the clinical team. The pain team should agree and document targets for their clinic to develop and maintain high clinical standards.

Key recommendations

- Delivery of chronic pain management services should be delivered in a tiered approach based on the complexity of each individual case.
- The tiers are arranged into primary care (community-based), secondary care (specialist service), and tertiary care (specialised care).
- Primary care pain management will be delivered by the primary care team, supported by the Integrated MSK teams as per Slainte Care policy.
- Specific chronic pain syndromes will be managed as per care pathways agreed by consensus of a multidisciplinary group led by the HSE Scheduled Care working group.
- A secondary or tertiary pain service should have a minimum of 3 Consultants who hold the FPMCAI or equivalent qualification.
- A tertiary pain service that provides on-call services (e.g. intrathecal pump management) should have a minimum of 2 additional Consultants who staff an on-call roster.
- A tertiary clinic providing a specialised service should have a minimum of 2 Consultants with training in the specialised area of interest.

- Based on available data, a minimum of 26 additional Consultants are required to deliver on this proposed framework for service delivery and workforce planning.
- A minimum of 16 extra physiotherapists with advanced training in chronic pain management are required in the secondary and tertiary care services.
- A minimum of 18 extra clinical psychologists with advanced training in chronic pain management are required in the secondary and tertiary care services.
- Universities involved in the education of healthcare professionals should have a designated person in a Senior Lecturer role to integrate chronic pain education into the undergraduate curriculum.
- Universities should be encouraged to deliver postgraduate courses in chronic pain management to healthcare professionals who are planning to work in a chronic pain MDT. The FPM should be involved in helping to design the undergraduate and postgraduate curricula.
- Waiting time targets for routine care as per Slainte Care Report:
 - 12 weeks for an inpatient procedure
 - 10 weeks for an outpatient appointment
 - 10 days for a diagnostic test
- More urgent appointments (e.g. trigeminal neuralgia, cancer-related pain):
 - Between 1 to 4 weeks for initial assessment and treatment
- Routine measurement of patient-related and service-related outcomes is recommended. The measurements will be specific to the service and the case-mix.

References

1. Classification of Chronic Pain, Second Edition (Revised). <https://www.iasp-pain.org/PublicationsNews/Content.aspx?ItemNumber=1673>.
2. Siddall, P. J. & Cousins, M. J. Persistent Pain as a Disease Entity: Implications for Clinical Management: *Anesthesia & Analgesia* 510–520 (2004) doi:10.1213/01.ANE.0000133383.17666.3A.
3. National Clinical Programmes (HSE). <https://www.hse.ie/eng/about/who/cspd/ncps/>.
4. Vos, T. *et al.* Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet* **388**, 1545–1602 (2016).
5. Raftery, M. N. *et al.* Chronic pain in the Republic of Ireland—Community prevalence, psychosocial profile and predictors of pain-related disability: Results from the Prevalence, Impact and Cost of Chronic Pain (PRIME) study, Part 1: *Pain* **152**, 1096–1103 (2011).
6. Raftery, M. N. *et al.* The Economic Cost of Chronic Noncancer Pain in Ireland: Results From the PRIME Study, Part 2. *The Journal of Pain* **13**, 139–145 (2012).
7. National Pain Strategy: Pain Management for all Australians. <https://www.painaustralia.org.au/improving-policy/national-pain-strategy>.
8. Jansson, C., Mittendorfer-Rutz, E. & Alexanderson, K. Sickness absence because of musculoskeletal diagnoses and risk of all-cause and cause-specific mortality: A nationwide Swedish cohort study: *Pain* **153**, 998–1005 (2012).
9. Fishbain, D. A., Lewis, J. E. & Gao, J. The Pain Suicidality Association: A Narrative Review. *Pain Med* **15**, 1835–1849 (2014).

10. Davis, L. L., Kroenke, K., Monahan, P., Kean, J. & Stump, T. E. The SPADE Symptom Cluster in Primary Care Patients With Chronic Pain: *The Clinical Journal of Pain* **32**, 388–393 (2016).
11. Blake, H., Leighton, P., van der Walt, G. & Ravenscroft, A. Prescribing opioid analgesics for chronic non-malignant pain in general practice – a survey of attitudes and practice. *British Journal of Pain* **9**, 225–232 (2015).
12. Core Standards for Pain Management Services in the UK. <https://fpm.ac.uk/standards-publications-workforce/core-standards>.
13. Models of care for pain management: a rapid review. https://www.saxinstitute.org.au/wp-content/uploads/08_Models-of-care-for-pain-management.pdf.
14. National Pain Strategy: A Comprehensive Population Health-Level Strategy for Pain. <https://www.hSDL.org/?abstract&did=792119>.
15. Low back pain and sciatica in over 16s: assessment and management. <https://www.nice.org.uk/guidance/ng59/resources/endorsed-resource-national-pathway-of-care-for-low-back-and-radicular-pain-4486348909>.
16. Adult Highly Specialist Pain Management Services. <https://www.england.nhs.uk/publication/adult-highly-specialist-pain-management-services/>.
17. Committee on the Future of Healthcare Sláintecare Report. <https://www.gov.ie/pdf/?file=https://assets.gov.ie/165/270718095030-1134389-Slaintecare-Report-May-2017.pdf#page=1>.
18. Treatment Abroad Scheme. <https://www2.hse.ie/services/treatment-abroad-scheme/treatment-abroad-scheme.html>.

19. Model of Care for Anaesthesiology.

<https://www.hse.ie/eng/about/who/cspd/ncps/anaesthesia/moc/model-of-care-for-anaesthesiology.pdf>.

20. Faculty of Pain Medicine (UK) Workforce Planning. <https://fpm.ac.uk/standards-publications-workforce/workforce-planning>.

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