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Reduction of Orthopaedic and Rheumatology Outpatient Waiting Lists: The National Musculoskeletal Physiotherapy Triage Initiative

A. Brennan[1], J. Ashton[1,2], E. Callanan[1,3], C. Farrell[1,3], G. Killeen[1,2], O FitzGerald[2], D. Moore[1,3], P. Kenny[1,3], D. Kane[1,2]

1. National Musculoskeletal Steering Group
2. National Clinical Programme for Rheumatology (NCPR), RCPI, Setanta House, Setanta Place, Dublin 2
3. National Clinical Programme for Trauma and Orthopaedic Surgery (NCPTOS), RCSI Surgical Affairs, Prouds Lane, Dublin 2

Abstract

Aims

The NCPR and the NCPTOS implemented a novel musculoskeletal (MSK) physiotherapy triage initiative to reduce the Orthopaedic and Rheumatology outpatient waiting lists in Ireland.

Methods

In 2012, 24 MSK Clinical Specialist Physiotherapists (CSPs) were recruited across 18 hospital sites nationally, with a further 6 CSPs recruited in 2016. From 2012-2014 participating sites kept local summary data from MSK triage clinics with a centralised monthly data analysis system established in 2015.

Results

From 2012-2018, 125,852 patients were removed from Orthopaedic and Rheumatology waiting lists nationally. 71% of all new patients were discharged following assessment and treatment. 19% who attended an orthopaedic CSP clinic were referred for orthopaedic consultant review and 10% who attended a rheumatology CSP clinic were referred for consultant rheumatologist review.

Conclusion

The MSK physiotherapy triage initiative successfully reduced national Orthopaedic and Rheumatology waiting lists, producing more effective use of limited consultant resources with improved patient wait times.

Introduction

Musculoskeletal (MSK) diseases comprise over 200 conditions that encompass a wide spectrum of inflammatory and non-inflammatory diseases. These include age-related degenerative conditions such as osteoporosis and osteoarthritis; autoimmune inflammatory diseases such as rheumatoid arthritis; bony and soft tissue injuries from major trauma, falls, sports and occupational causes and very common but poorly understood conditions such as back pain and fibromyalgia.

Increasing lifespan, reduced physical activity and increasing obesity have resulted in an increasing prevalence of MSK diseases with an estimated 1.2 million Irish citizens affected[1]. The Irish LongituDinal study on Ageing (TILDA) noted a reported arthritis prevalence of 33% among the over 50's population[2], increasing to 51% in the over 75's population. This rising prevalence has led to increased waiting times to see orthopaedic and rheumatology consultants in Ireland. Since 2014 there has been a 17.6% average annual increase in orthopaedic outpatient (OPD) referrals and a 6.4% average annual increase in Rheumatology OPD referrals. As a consequence, many patients wait years for an appointment to get a specialist opinion resulting in delayed diagnosis, increased morbidity and poorer patient outcomes[3-5].

Clinical Specialist Physiotherapists (CSPs) are trained in diagnosing and triaging treatment for patients with common MSK disorders. They can select the most appropriate care pathway for selected groups of patients on orthopaedic and rheumatology waiting lists and improve the efficiency of care[6]. The MSK patient journey can be very complex with patients often requiring multiple interventions making CSP clinics an ideal place to direct patient care[7]. They function as a "one stop shop" for assessment, diagnosis, education and identification of an appropriate management pathway. Thus, patients with more common degenerative MSK disorders not requiring highly specialised consultant services such as orthopaedic surgery or rheumatological immunotherapy can be more rapidly diagnosed and treated. Those requiring specialist services can be identified and triaged more rapidly to the most appropriate specialist service. CSP's have been shown to be as effective as orthopaedic doctors in diagnostic accuracy, treatment choice, use of healthcare resources and patient satisfaction in selected patient groups[6-8].

The first CSP-led MSK triage clinic was established in the Ireland in 2001 where Clinical Specialist Physiotherapists (CSPs) worked in the triage of low back pain orthopaedic patients[9]. Of the patients who attended in the first 2 years of this service 85% of patients were discharged back to the care of their General Practitioner (GP). Since 2002, a small number of hospital sites across Ireland have established CSP triage clinics in the areas of neurosurgery, orthopaedics and rheumatology[8,10]. Each of these clinics were established based on local guidance and governance without any national governing structure providing support, direction and evaluation. In 2011 the National Clinical Programme for Rheumatology (NCPR) and the National Clinical Programme for Trauma and Orthopaedic Surgery (NCPTOS) collaborated in the development of a national MSK physiotherapy triage initiative in order to manage the Orthopaedic and Rheumatology outpatient waiting lists. An initial analysis of 6 months activity of this initiative suggested a positive impact of the service[11], and we now assess the long-term impact of the 7-year activity data.

Methods

In 2012, 24 CSPs were employed by the Health Service Executive (HSE) across 18 hospital sites and in 2016 a further 6 posts were recruited. CSPs were trained and employed in areas of advanced MSK practice at hospital sites in Ireland with formal training provided at a national level and all CSP's had a consultant mentor. These posts were to provide Orthopaedic and Rheumatology triage clinics across 18 hospital sites throughout the country to aid clearance of lengthy OPD waiting lists and improve long term MSK referral management. All participating sites were sent an implementation plan which listed all requirements deemed necessary for successful service delivery. All sites had to complete this implementation plan and return to the NCPTOS and NCPR programme managers. Subsequently, a meeting was held with all the key stakeholders from the allocated centres to discuss the implementation requirements for this initiative. From 2012-2014 participating sites kept local data sheets and provided a total number of patients seen and discharged by MSK triage clinics.

From 2015 a more robust data analysis system was established where each site submitted monthly excel spreadsheets that reported specific performance metrics which included new and return patients seen; access data; numbers that 'did not attend' (DNA) the visit and outcome data from the visit. All data was cleaned and verified prior to being included in the collective run charts. For the purpose of this study, data was anonymised in line with data protection and analysed using descriptive statistics.

This report outlines the first 7 years of national data on patients who attended clinics as part of the national MSK physiotherapy triage initiative. This study specifically examined the following: 1) numbers seen across 18 sites where CSP triage clinics were established; 2) outcome of patients who attended these clinics and 3) the impact of the national MSK physiotherapy triage initiative on collaborative orthopaedic and rheumatology national waiting lists.

Results

National MSK Physiotherapy Triage Initiative Activity 2012-2018

From January 2012 to December 2018, a total of 125,852 patients have been removed from orthopaedic and rheumatology waiting lists nationally by this initiative. 104,394 new patients attended for assessment and 21,458 people (17%) who were given an appointment 'did not attend' (DNA). Of the 104,394 new patients assessed, 73,694 (71%) were discharged at their initial clinic visit having been provided with a diagnosis and treatment plan and 15,759 (15%) of new patients returned for a review at the CSP MSK triage clinic. Between 2015 and 2018, 25% (n=18,127) of patients were seen within 3 months of receipt of referral at the hospital site. (Table 1)

Table 1. National MSK Physiotherapy Triage Initiative Activity 2012-2018.

	2012-2014*	2015	2016	2017	2018	Total
Total New Patients Seen at MSK Clinics	32,579	16,441	17,489	17,533	20,352	104,394
Total Return Patients Seen at MSK Clinics	5,469	2,386	2,518	2,854	2,532	15,759
Number Discharged from Service (n)	26,596	10,640	11,279	11,410	13,769	73,694
Average Discharge Rate (%)	82%	65%	65%	65%	68%	71%
Number of those who Did Not Attend (n)	5,946	3,909	3,586	3,551	4,466	21,458
Average DNA Rate (%)	13%	19%	17%	17%	18%	17%
Number of patients seen within 3 months of referral (n)	-	5,559	4,577	4,835	3,156	18,127**
Average rate of patients seen within 3 months of referral (%)	-	34%	27%	28%	27%	25%**
Total Removed from Orthopaedic & Rheumatology Waiting Lists	46,588	20,350	21,075	21,084	24,818	125,852

*Annual Data not available as robust reporting structure established in 2015

**Represents data 2015-2018 inclusive

Patient outcome data from the National MSK Physiotherapy Triage Initiative 2015-2018

Between January 2015 and December 2018, 60,850 orthopaedic patients have been seen at CSP MSK triage clinics. Of this, CSPs independently assessed and managed 65% (n=39,358) of the patients seen as these were discharged after their initial clinic visit. 19% (n=11,451) were referred for follow-up with an orthopaedic consultant and <1% (n=399) were referred for a rheumatology appointment. (Table 2)

Table 2. National MSK Physiotherapy Triage Initiative Orthopaedic Outcome Data 2015-2018.

Orthopaedic Only Data	2015	2016	2017	2018	Total
Total New Attendances at Orthopaedic MSK Clinics (n)	14,165	15,144	14,804	16,737	60,850
Total New Patients Discharged from Orthopaedic MSK Clinics (n)	9,032	9,630	9,428	11,268	39,358
Average Discharge Rate from Orthopaedic MSK Clinics (%)	64%	64%	64%	67%	65%
Total new patients referred onward to Specialist Orthopaedic service (n)	2,861	2,847	2,760	2,983	11,451
Average onward referral rate to Specialist Orthopaedic service (%)	20%	19%	19%	18%	19%
Total new patients referred onward to specialist Rheumatology Service (n)	109	114	98	78	399
Average onward referral rate to Specialist Rheumatology service (%)	0.8%	0.9%	0.7%	0.5%	0.7%

Over the same period of time 10,965 rheumatology patients were seen in CSP MSK clinics with 71% (n=7740) of these being assessed and discharged after their first appointment; 10% (n=1130) requiring follow-up with a consultant rheumatologist and 2% (n=229) referred for a follow-up with a consultant orthopaedic surgeon. (Table 3)

Table 3. National MSK Physiotherapy Triage Initiative Rheumatology Outcome Data 2015-2018.

Rheumatology Only Data	2015	2016	2017	2018	Total
Total New Attendances at Rheumatology MSK Clinic (n)	2,276	2,345	2,729	3,615	10,965
Total New Patients Discharged at Rheumatology MSK Clinic (n)	1,608	1,649	1,982	2,501	7,740
Average Discharge Rate from Orthopaedic MSK Clinics (%)	71%	70%	73%	69%	71%
Total new patients referred onward to Specialist Orthopaedic service (n)	48	56	56	69	229
Average onward referral rate to Specialist Orthopaedic service (%)	2%	2%	2%	2%	2%
Total new patients referred onward to specialist Rheumatology Service (n)	229	181	296	424	1,130
Average onward referral rate to Specialist Rheumatology service (%)	10%	8%	11%	12%	10%

Impact of the National MSK Physiotherapy Triage Initiative Activity 2015-2018

The national MSK physiotherapy triage Initiative has made significant inroads into assisting in the management of both Orthopaedic and Rheumatology waiting lists. Figure 1 outlines a graphical illustration comparing the combined national Orthopaedic and Rheumatology waiting lists with the projected waiting list figures in the absence of the national MSK physiotherapy triage initiative between 2015 and 2018.

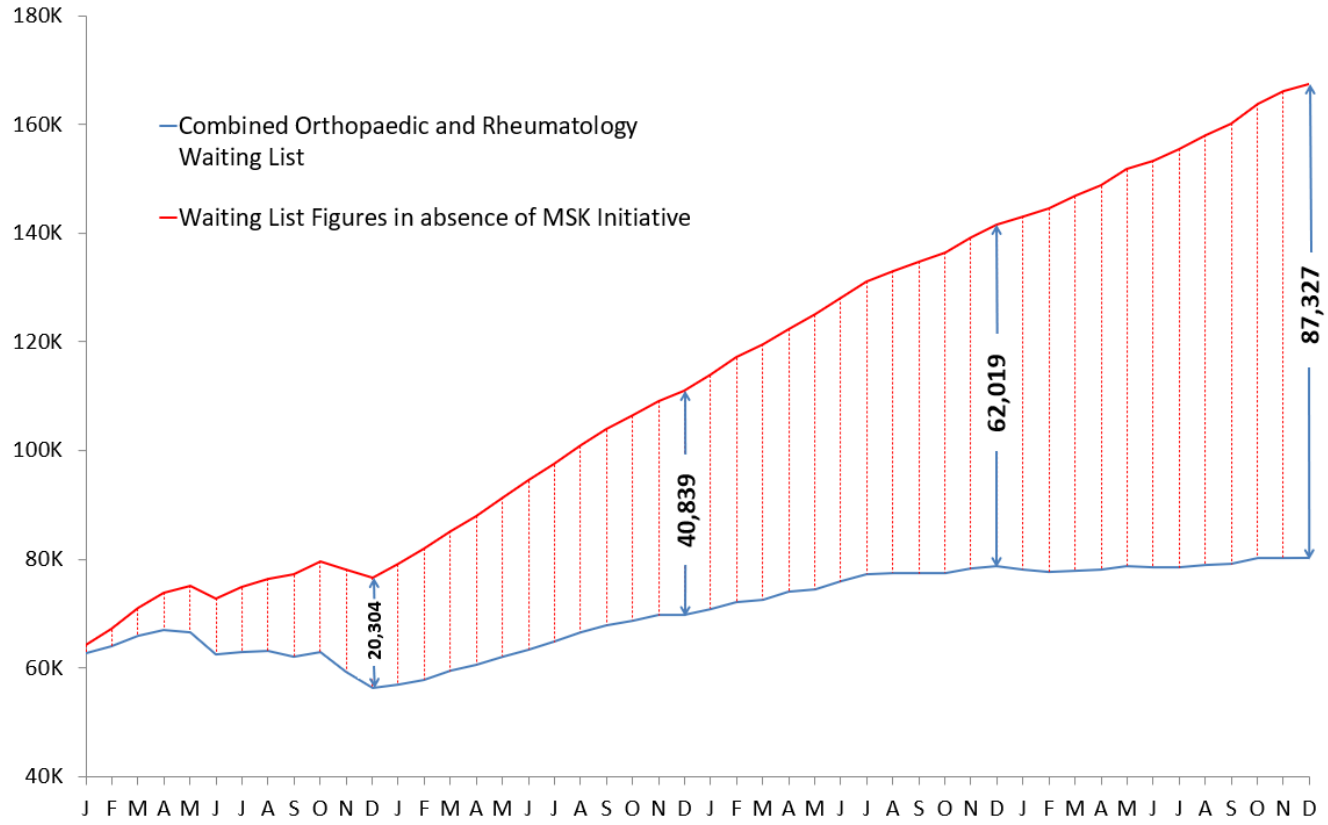

Figure 1. National MSK Physiotherapy Triage Initiative Impact on Orthopaedic and Rheumatology Waiting Lists 2015-2018

Discussion

Increased patient expectations of good health combined with an older, more obese and less physically active population has resulted in a rising MSK disease prevalence and demand for MSK health services in the developed world[1,2]. Patients with MSK diseases who cannot be diagnosed and treated in primary care are usually referred to specialist Orthopaedic or Rheumatology outpatient services. Ireland has one of the lowest population ratios of consultant rheumatologists and orthopaedic surgeons in the EU and waiting lists for specialist consultation are unacceptably long [4,5]. Modern orthopaedic surgery and rheumatology immunotherapy treatments for patients with arthritis are highly effective for selected patients but this study confirms that many patients with MSK diseases can be managed by a Musculoskeletal Clinical Specialist in Physiotherapy without a specialist consultation and intervention. These would usually be patients with non-inflammatory, less advanced degenerative conditions as seen in the initial 6 analysis of this initiative [8,10,11]. This study confirms the sustained effectiveness of a national collaborative initiative between the NCPR and the NCPTOS in the management of those groups of MSK patients by CSPs.

Over a seven-year period from 2012 to 2018, 125,852 patients were removed from both Orthopaedic and Rheumatology waiting lists due to the national MSK physiotherapy triage initiative. The positive impact of this on current waiting times is demonstrated in Figure 1 but waiting lists for Orthopaedic and Rheumatology outpatient appointments remain unacceptably high and continue to rise (Figure 1). This study confirms that CSPs can independently manage 71% of selected patients on these outpatient waiting lists but are not the sole solution to Orthopaedic and Rheumatology waiting lists. For example, in most sites the CSPs would only see referrals selected by the supervising consultant as appropriate with the remainder waiting for a specialist clinic. In the Rheumatology referral pathway for example, patients with suspected inflammatory arthritis, connective tissue disease or vasculitis would bypass a CSP and this may account for the lower onward referral rate of 10% of those seen by a CSP in the triage clinic. The NCPR and NCPTOS have both published models of care approved by the HSE[4,5] confirming there is still a need for increased numbers of consultant appointments in both specialties as being critical to further improve access and quality of care in Orthopaedics and Rheumatology.

From 2015 and 2018 a new data collection system allowed monthly key performance indices to be analysed. At a time when the national waiting list figures for orthopaedics and rheumatology were over 12 months, 25% of patients accessed MSK services via CSP triage clinics within 3 months of receipt of referral at their hospital site. While this is a clear improvement, the programme target is to have 100% of patients assessed within 3 months of referral and there is a requirement for more capacity in the National MSK Triage programme. The publication of the SlainteCare report in 2017 supports the management of more patients in primary care[12]. Given 71% of patients were managed independently by the CSP at the MSK triage clinic, the question arises as to whether some or all of these patients could have been managed at primary care level[13,14]. The NCPR and NCPTOS has proposed that the next phase of the triage programme should focus on establishing integrated clinics between primary and secondary care services managing patients as close to their home as possible. It is estimated that 12 additional CSP posts would meet current referral demand allowing 100% of patients to be seen within 3 months. This study confirms the success of MSK physiotherapy triage clinics with an operational model that is transferable to primary care with correct planning in relation to structure and governance. In order to successfully implement an integrated pathway of care for patients with MSK disorders we conclude that there is a need to invest in MSK training for GPs and in community physiotherapy treatment services and community MSK specialist assessment clinics with appropriate access to laboratory and radiological investigations.

The removal of 125,852 patients from both orthopaedic and rheumatology national waiting lists in the past 7 years by the national MSK physiotherapy initiative was the first systematic HSE initiative to manage selected consultant referrals with specialised health care professionals. This has successfully improved access to Rheumatology and Orthopaedic services in Ireland. Prior to the introduction of the MSK triage programme, these patients would have waited for an appointment to be seen at either a consultant orthopaedic or rheumatology clinic that in some sites could be 5 years. The success of this cross-programme initiative between the NCPR and NCPTOS has had a positive impact on patient outcomes by reducing waiting times for diagnosis and treatment. This allowed consultant time to be used more effectively for patients that require their expertise. Further research into patient centred qualitative health outcomes for patients managed through this pathway are required. This new way of working should be further developed to improve patient access but will need to be supported by the implementation of the NCPR and NTPOS models of care.

Declarations of Conflicts of Interest:
The authors declare no conflicts of interest

Corresponding Author:
Prof David Kane,
Dept of Rheumatology,
Tallaght University Hospital,
Dublin 24.
Phone: 01-4143350
Email: david.kane@tuh.ie

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