

ORIGINAL PAPERS

Specialist Physiotherapists In Orthopaedic Triage - The Results Of A Military Spinal Triage Clinic

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ABSTRACT

Changes in professional boundaries have allowed many of the tasks traditionally undertaken by doctors to be delegated to Nurses and Allied Health professionals. The employment of an appropriately experienced specialist physiotherapist in orthopaedic clinics in the NHS to triage patients is well established. This paper examines the background, establishment and outcomes of the use of a Physiotherapist Extended Scope Practitioner (ESP) in the Orthopaedic Department at the Royal Hospital Haslar, Gosport. The ESP post at RH Haslar has evolved in the five years since its implementation in 2000. All military patients referred to RH Haslar Orthopaedic Department with spinal, predominantly low back, pain are assessed in the Military Spinal Triage Clinic. The Physiotherapist ESP case-manages patients with access to radiological and haematological investigations and onward referral to other specialities as appropriate. Between July 2003 and December 2004, 235 new patients were assessed. Only 25 patients required review by the consultant spinal surgeon and 5 were referred to non-spinal orthopaedic consultants with shoulder/hip pathology. A total of 18 patients were referred to Pain Clinic and 3 patients to Rheumatology, indicating that nearly 90% (n=210) of patients who would previously have been reviewed by a consultant spinal surgeon could be managed by a Physiotherapist ESP. The waiting time to spinal surgery has reduced from approximately 8 months to between 6 and 16 weeks. An appropriately trained specialist physiotherapist is clinically and economically appropriate to manage patients in an Orthopaedic Department. This has important implications for optimising patient management and additionally supports the wider clinical employment of senior military physiotherapists.

Key words:

Physiotherapists, orthopaedics, triage, rehabilitation, extended scope practitioner.

Introduction

Army physiotherapy has undergone considerable change in the last decade. It has developed from a predominantly hospital based other rank career employment group to an all officer cadre increasingly employed in Primary Care (1). Significant changes have also occurred within the NHS as numerous government initiatives have been launched to tackle the increasing problem of hospital waiting lists. Consequently the roles of Allied Health Professionals (AHPs) are expanding as they move from the historical boundaries of medical practice and establish new roles within hospital outpatient clinics (2,3). The physiotherapists employed in these posts are experienced practitioners who have developed additional clinical skills allowing them to undertake their extended role. The Chartered Society of Physiotherapy (CSP) defines physiotherapist extended scope practitioners (ESPs) as, "Clinical Physiotherapist Specialists, with an extended scope of practice, who see patients referred for assessment, clinical diagnosis and management" (4). ESPs are often the first point of contact for patients in an outpatient clinic. They assess the patient and plan their management; consider whether the patient needs to see a consultant, requires further diagnostic tests, referral to other specialities or requires a rehabilitation programme.

It is generally recognised that within the Armed Services, musculoskeletal injury is one of the leading causes of disability and medical down grading and research conducted at Colchester Garrison over a three year period indicated that Low Back Pain accounted for 22.2% of musculoskeletal consultations (5). Spinal complaints account for a significant proportion of disability but the evidence that patients either require or benefit from surgery is limited (6, 7). Less than 10% of patients referred to an Orthopaedic Spinal Surgeon undergo a surgical procedure (8, 9).

The use of Physiotherapists ESPs within the NHS is expanding and its success is well documented (10, 11). Portsmouth Hospitals NHS Trust, the Host Trust for RH Haslar, had established a 'Back Care Pathway' for all civilian patients. Their 'Pathway' ensured that all patients with mechanical Low Back Pain (LBP) were reviewed by Primary Care physiotherapists rather than referred for orthopaedic opinion.

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The Military Spinal Triage Clinic was established after consultation with the Commanding Officer, Head of Orthopaedics and the civilian Consultant Spinal Surgeon and was staffed by an experienced physiotherapist ESP. The aim of the clinic was the timely triage and management of all military personnel referred to RH Haslar with spinal (neck or back) pain.

Organisation Of The Clinic

The delegation of patient management to a Physiotherapist ESP followed on from a similar physiotherapist ESP service provided at RH Haslar between July 2000-January 2003. This earlier role included attendance at out-patient clinics, observing spinal surgery, ward rounds and departmental in-service training as well as following the training guidelines of the CSP (4). Seventy eight percent (393/503) of the patients could be managed by the physiotherapy ESP without the requirement for a consultant opinion. These patients were selected on the criteria that they were non-surgical whose referral letters did not indicate any 'red flags' or significant pathology.

The Military Spinal Triage Clinic provides 4 clinics per week and with appointments of 30 minutes per patient, organised by a partial booking system to minimise non-attendance in clinic. The system acknowledges receipt of the referral and requires the patient or Medical Centre to contact the administrator for an appointment. The administrator had the authority to overbook clinics when the request was urgent. Urgent was defined as either clinically urgent for patients who would probably require consultant opinion and potentially surgery or operationally urgent when the patients disability could affect their military deployment. Occupational factors were taken into consideration with aircrew and Special Forces personnel receiving extra consideration for rapid access and assessment. The Physiotherapist ESP has considerable autonomy and responsibility as the civilian consultant was available only once a week. Additionally the Physiotherapist ESP had authority to book patients directly onto the consultant's clinic list, thus providing the patient a second opinion with minimum delay.

All Orthopaedic referrals for spinal pathology opinion would be triaged by a physiotherapist ESP prior to, and only if required, consultant review. It was considered essential that referring practitioners were aware that their patients were not being reviewed by either a consultant or orthopaedic trainee. Furthermore, the Chartered Society of Physiotherapy (CSP) required that all

patients were made aware prior to their appointment that they would see a physiotherapist and not a doctor (4). Referrals were accepted from Medical Officers (MOs), Civilian Medical Practitioners (CMPs) and senior civilian and military physiotherapists.

All patients were assessed in the Orthopaedic Department out-patients clinic, completing the Oswestry Disability Questionnaire (13) on arrival. Clinical history taking and examination was undertaken based on that of the orthopaedic consultant and an assessment proforma completed. The available options were then discussed with the patient. These were broadly; further investigations and onward referral, physiotherapy and rehabilitation; advice and review or discharge. Investigations available to the ESP included radiology (X-ray and MRI) and haematology. Onward medical referral included review by the Consultant Orthopaedic Surgeon, Rheumatology or Pain clinic.

Results

In the eighteen month study period 235 spinal patients were seen in the spinal triage clinic. The Defence Health Programme 2003/2007 defines timely management as being within 13 weeks of the decision to give in-patient treatment or for those that meet the Fast Track criteria (clinical, occupational and military) as within 14 days. Over 80% (n=195) of patients were allocated an appointment within 2 weeks of their contact with the clinic administrator and no patient waited longer than 4 weeks. The benefits of the partial booking system were demonstrated by the very low failure to attend rate of less than 3% (n=7) among new patients. Those patients identified as requiring consultant review were seen by the surgeon within 3 weeks - the triage system effectively reducing inappropriate consultant referrals and reducing waiting times. A similar decrease in surgical waiting times also occurred.

Forty five diagnostic investigations were requested (31 MRIs, 7 plain x-rays and 7 blood tests). MRI scans were requested for:

- Moderate or severe neurological deficit
- Trauma
- Unexplained progressive worsening of symptoms
- Onward referral for consultant review (Surgical/Pain Clinic)

Plain radiography was requested where there was a history of trauma or to assess lumbar spondylolythesis. Haematology tests (FBC, ESR, HLA-B27) were requested when an inflammatory disorder, usually ankylosing spondylitis, was suspected. A total of 51 patients (21.7%)

received onward referral for consultant opinion.

Twenty five (10.6%) patients were referred to the spinal surgeon of whom 15 subsequently underwent surgery. The remaining 10 were referred for consultant opinion on their correct medical grading and of these 8 were recommended P8 (medical discharge) and 2 to be graded P7 (HONNI). Five patients presented with complaints that were non-spinal in origin, but were considered appropriate for review by a consultant of these 3 were shoulder injuries which were referred for consideration of arthroscopy and 2 with hip pathology requiring further investigation. Pain Clinic referrals accounted for 18 patients (7.6%) who were considered appropriate for consideration of epidural, intra-discal electrothermography (IDET), or nucleoplasty. All patients had undergone MRI within two years prior to their Pain Clinic referral. The 3 (1.3%) patients who had a clinical profile of ankylosing spondylitis with an elevated ESR and were HLA – B27 positive were reviewed by a Consultant Rheumatologist.

Seventy six patients (32.3%) were referred for rehabilitation. Considerable variation in prior treatment received was reported by patients. It appeared that fear of further 'damage' had often been a limiting factor in patients willingness to partake in rehabilitation programmes. Similarly, increased levels of reported pain had made patients fearful of activity and discouraged physiotherapists. Fifty seven patients (24.2%) were referred for physiotherapy at their local Primary Care Rehabilitation Facility (PCRF). Nineteen patients (8.1%) were referred directly to the Regional Rehabilitation Unit (RRU); these patients had already undergone a comprehensive individual physiotherapy programme but required the multi-disciplinary expertise and a residential rehabilitation programme to return them to full duties.

Nearly a third (n=71) of patients were assessed and discharged from the clinic after their initial appointment; these patients required explanation and self-management advice only. In all cases the patients expectations were ascertained early in the consultation. Consequently the decision that only the one appointment was necessary was made by the patient rather than the physiotherapist ESP. One hundred and eighty four patients (78%) were managed solely by the physiotherapist ESP. Waiting times for spinal surgery fell from a mean of 8 months to ten weeks (range 6-16 weeks).

Discussion

These results mirror those previously reported (8,9,11). In this cohort only 15

patients (6.3%) underwent surgery and there is growing evidence (6,7,17,18) advocating conservative management. The Military Spinal Triage clinic ensures timely management of non-surgical patients by their onward referral to the most appropriate specialty and with the results of any necessary investigations.

Waiting times for radiological investigations, particularly MRI, can add months to the time a patient waits for diagnosis and management. Appropriate referral and adherence to radiological guidelines (12) significantly reduces these waiting times. Changes in statutory regulations now allow physiotherapists and other approved health professionals to request X-Ray examinations (19). However the value of spinal X-ray is very limited in the management of chronic low back pain (12, 20) and it is considered that three standard views of the lumbosacral spine equates to 120 chest X-rays (20). It is estimated that 19 radiation induced deaths per year are statistically attributable to lumbar spine X-ray in the United Kingdom(20).

Magnetic Resonance Imaging is free of the risks of ionising radiation but is expensive. They were often requested by MOs/ CMPs but have limited impact on patient management as MRI will identify not only pathological processes but the normal features of ageing which must be differentiated from changes that may be significant (21). A total of 48 patients had undergone MRI scans prior to their clinic appointment at the request of their MO/CMP, the majority of which revealed degenerative changes and small prolapsed intervertebral discs. Only 3 of these patients required surgery while 2 received an epidural. A MRI scan was requested by the Physiotherapist ESP for 31 patients of which 12 were referred for surgery. A further 10 patients were referred to Pain Clinic for either epidural or IDET. These figures support earlier work which shows both cost saving (10) and clinical appropriateness (22) among Physiotherapist ESP initiated investigative requests. As patient involvement in health care increases the information provided about diagnosis and management is crucial (23). Patients have access to information via the media and electronic databases, however much of this is contradictory and lacks validity. Such information can raise false expectations regarding diagnosis and management (23) and frequently patients regard an MRI as essential in diagnosis. The challenge for clinicians is to address false expectations and adhere to evidence-based clinical guidelines.

Nearly a third (n=76) of patients were referred to physiotherapy or rehabilitation. Of these patients 30 had not received

physiotherapy or rehabilitation in the last two years and should have been referred along this pathway and not directly to the Orthopaedic Department. The remaining 46 patients were equally divided between those referred by physiotherapists in primary care and medical officers. These patients were referred to the clinic for advice and management, having already undergone an MRI scan. Frequently referral requested clarification of the appropriateness of either surgical intervention or Pain Clinic review. Referring practitioners seemed unsure of the differences between the normal aging process and those changes of clinical significance. Unsurprisingly the least experienced practitioners showed the greatest concern about the significance of radiological investigative results.

The appointment time of 30 minutes provided the opportunity for discussion of the patients' treatment and management. It is established (8, 9) that the majority patients referred to an orthopaedic clinic do not require surgical intervention. It is arguable that patients who do not require surgery may benefit from review by a non-surgeon who can advise on their conservative management this review can provide explanation and reassurance as to the nature of the patients' symptoms. Advice can be provided to patients on self-management and coping strategies while pain beliefs may be challenged and issues of chronicity addressed at an early stage. It has been proposed (14, 15, 16) that the traditional model of history and examination leading to diagnosis then treatment and ultimately cure is not entirely appropriate in the management of low back pain. Hence the patient's frustration when informed that surgery is not the 'cure' for Low Back Pain and their continued search for a 'cure'. Such patients may benefit from review in a specialised spinal clinic where these issues can be discussed, rather than simply being informed that their symptoms do not indicate surgical intervention. The most frequent concern expressed by patients was that work and activity would damage their spine. Twelve patients had been on sick leave for over 4 months but did not require surgery. These issues emphasise the importance of the psychosocial risk factors in the development of disability (15, 18, 20).

All of the 71 patients discharged after the initial clinic appointment had previously been appropriately investigated and received rehabilitation. Often the patients were already aware that surgery was not indicated but wanted to discuss any new treatments that may be appropriate.

The Military Spinal Triage Clinic has case-managed 235 patients who would previously waited up to 8 months to see an

orthopaedic surgeon. Since 1990 the NHS has made increasing use of physiotherapists in extended roles to manage these patients (8-11) and their successful introduction into the Defence Medical Services has significant implications for operational commitments where disability equates to non-deployability. The development of the Deployed Medical Rehabilitation Team has taken the concept to deployments and utilises the combined skills of the Medical Officer and physiotherapist to retain troops in theatre.

Conclusions

By managing the majority of patients who do not need surgery and removing these patients from the consultants list, the Military Spinal Triage Clinic effected a significant reduction in waiting times for those patients who did require spinal surgery. Radiological investigations are used according to clinical guidelines and inappropriate radiation exposure is minimised. The yield from physiotherapist ESP requested MRI scanning is markedly greater than those requested from the primary care setting. The clinic has provided a single point of entry to secondary care, reducing the trend of multiple referrals. This role is reflected in the ongoing developments in primary care with the RRUs acting as 'gatekeeper' to secondary care with their Multidisciplinary Assessment Clinics.

The use of physiotherapist ESPs has considerable scope for further development within the Defence Medical Services. With the move from secondary to primary care it is likely that increasing numbers of physiotherapists will have the opportunity to develop advanced clinical skills. The use of physiotherapist ESPs can enhance timely and appropriate patient management, but are dependent upon the availability of appropriate advanced training and the full support of their medical colleagues.

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