Tools to assist in the implementation of Extended Scope Practice Allied Health Roles Starter Pack
FOREWORD

BY MS KAREN MURPHY –
ALLIED HEALTH ADVISOR ACT HEALTH DIRECTORATE

Since 2005 the ACT Health Directorate has had a keen interested in extended scope practice for Allied Health to explore new and novel models of care. This work has been undertaken in collaboration with the International Centre for Allied Health Evidence at the University of South Australia. This partnership has ensured that this work has academic rigour, whilst at all times focussing on health care delivery and patient-centred care.

This tool pack includes documents to assist other healthcare providers/institutions introduce extended scope practice roles, highlighting the requirements as well as the potential pitfalls. The aim of this pack is to ensure that efficient workforce redesign principles are employed at other sites and that these principles are underpinned in evidence-based practice and research.

The work included in this pack has been developed under the guidance of a committed and hardworking team whose ethos is innovative and patient-focussed care. The team includes Doctors, Allied Health, Educators, Academics, Nurses, Managers and Executives, this work would not have been possible without them.

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Extended scope of practice

Evidence to date:
Extended scope physiotherapists

Summary of systematic reviews

Orthopaedics

- 12 studies
- Ranging from level II to IV

Inflammatory arthropathies

- Four studies
- Ranging from level III_2 to IV
- One qualitative study
Tasks performed

- Performing management techniques
  - Injection therapy
  - Removal of plaster of Paris
  - Removal of k-wires
  - Monitor, recommend and change medications

- Requesting and interpreting further investigations
  - Diagnostic imaging
  - Laboratory tests

- Making referrals
  - Other allied health professionals
  - Medical professionals
  - Orthopaedics
  - Rheumatology
  - Pain clinics
  - Physicians
  - Listing patients for surgery


Level of autonomy

- Varied between studies
  - Some had to have X-rays signed off by a medical consultant
  - Some had to discuss referrals, surgery listings and requests for radiological interventions with medical consultant

Moloney et al. (2009), Gardiner & Turner (2002)
Background evidence

- Small numbers of mostly cohort and uncontrolled experimental studies from UK, US, Europe, Australia
- Anecdotal evidence that ESP roles are safe and produce effective health outcomes
- Emerging evidence that ESP roles are cost-effective

Support provided where required

- Harrison et al. (2001)
  - difficult cases could be discussed with a medical practitioner in the orthopaedic clinic
Protocols

- Protocols for:
  - First physiotherapy appointment
  - Examination and assessment
  - Requesting further investigations
  - Managing fractures
- Developed by physiotherapy and orthopaedic staff, or ESP physiotherapists and nurse practitioners
- Based on orthopaedic consultants examination, assessment and management processes

Blackburn et al. (2009), Heywood (2005), Moloney et al. (2009)

Areas attracting ESP physiotherapy roles

- Orthopaedics/ rheumatology**
- Gynaecology and obstetrics
- Paediatrics
- Neurology
- Cardiorespiratory
- Emergency departments**
** formal role implementation and evaluation in place in ACT
Roles undertaken by ESP physiotherapists

• Tasks may include:
  – Referral to allied health and medical professionals
  – Listing patients for surgery
  – Ordering and interpreting further investigations
  – Prescribing, reviewing and administering medications
  –Injecting
  – Surgery

Similar tasks could be carried out by other allied health ESPs

Referral to an ESP physiotherapist

Clinical environment

• Outpatient hospital settings
• Triaging roles
• Clinical assessment and treatment services

MacKay et al. (2008)

Multidisciplinary approach

• Worked alongside:
  – Other physiotherapists
    • Including ESP and consultants
  – Occupational therapists
  – Podiatrists
  – Primary physicians or general practitioners with special interest in rheumatology
  – Orthopaedic and rheumatologystaff
    • Consultants
    • Various specialist registrars

Training

Formal training
- Diploma of Injection Therapy
- Fellow of Society of Orthopaedic Medicine*
- Masters in Musculoskeletal Physiotherapy*

Informal training
- Requesting investigations
- Injection therapy
- X-ray interpretation
- Radiation protection

* Unclear whether these were required for ESP role, or whether the ESP physiotherapists already had these qualifications

Gardiner & Turner (2002), Dickens et al. (2003), Blackburn et al. (2009), Moloney et al. (2009)

Training Program in a Fracture Clinic

6 month training program

Training

Managing patients

Competencies assessed

Moloney et al. (2009)
Effectiveness of ESP physiotherapy management

• Positive results regarding the effectiveness and efficiency of management
  – 74% of patients referred for surgery were deemed suitable for surgical referral
  – 70% accuracy in determining whether surgery was required
  – 71% of referrals to consultants were considered appropriate

Hattam (2004)

Diagnostic accuracy

• Comparison of diagnosis to arthroscopy results
  – Dickens et al. (2003)
    • Consultant’s diagnosis correct for 92% of patients
    • ESP physiotherapist’s (x2) diagnosis correct for 84% and 80% of patients
    • ESP physiotherapist correct for 52% of patients
    • Orthopaedic team correct for 40% of patients
    • Doctors correct for 37% of patients
Detection of an operable lesion

• Gardiner and Turner (2002)
  – ESP physiotherapist correct for 100% of patients
  – Doctors correct for 79% of patients
• Hattam (2004)
  – ESP physiotherapists correct for 79% of patients

Health outcomes

• Harrison et al. (2001)
  – Constant-Murley shoulder scores
    • Improved by 40 points on average
    • No patients scores decreased
    • No comparison with other forms of management
• Dickens et al. (2003)
  – Improved with conservative management (not necessarily ESP)
Waiting times

• Hattam and Smetham (1999)
  – Orthopaedic waiting time:
    • over 11 months
  – ESP physiotherapist waiting time:
    • mean 32 working days (range 4-87 days)
• Morris et al. (2011)
  – Median pre-intervention orthopaedic waiting time:
    • 25.1 (IQR 24.3-31.3) months
  – Median waiting time for triage telephone call and some form of management
    • 6.6 (IQR 5.8-7.5) months

Cost outcomes

• Harrison et al. (2001), UK study
  – Orthopaedic appointment £16
  – ESP appointment £11
• Morris et al. (2011), Australian study
  – Decrease in costs of approximately 48%
ACT Health Human Research Ethics Committee (ACTHEC)

APPLICATION

Title:
Evaluation of the extended scope physiotherapy service pilots in emergency department and orthopaedic outpatients.

Jo Morris, Karen Grimmer-Somers, Karen Murphy, Greg Hollis, Bryan Ashman
AI. Title of project

Evaluation of the extended scope physiotherapy service pilots in emergency department and orthopaedic outpatients.

A2. Names and Qualifications of Investigators

Ms Jo Morris  
(Chief Investigator)  
Senior Physiotherapist  
BSc (Hons) Physiotherapy  
MSc Clinical Biomechanics  
Registered Physiotherapist

(Signature)

Prof Karen Grimmer-Somers  
Professor of Allied Health, School of Health Sciences, University of South Australia  
B. Phyt, PhD (Epidemiology)

(Signature)

Ms Lisa Gilmore  
Director of Physiotherapy, Canberra Hospital  
B(App)Sc Physiotherapy  
Registered Physiotherapist

(Signature)

Ms Karen Murphy  
Allied Health Advisor, ACT Health Exec.  
President, Australasian Interprofessional Practice & Education Network (AIPPEPEN)  
B. Phyt

(Signature)

Dr Greg Hollis  
Director of Emergency Department  
Canberra Hospital  
BSc MBBS, FACEM (ED), grad cert (higher education)

(Signature)

Dr Bryan Ashman  
Clinical Director of Surgery  
MB BS (Hons), FRACS (Orth), FAOrthA

(Signature)
Contact person:  
Ms Jo Morris  
Office of the Allied Health Advisor  
11 Moore St, Canberra  
Ph (02) 6244 2750  
jo.morris@act.gov.au
### A3. Endorsement of Head(s) of Department(s)

I have discussed this study with the investigator(s) and I have agreed to provide full support.

<table>
<thead>
<tr>
<th>Name</th>
<th>Dr Greg Hollis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Emergency Department</td>
</tr>
<tr>
<td>Position</td>
<td>Director</td>
</tr>
</tbody>
</table>

Date

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I have discussed this study with the investigator(s) and he/she/they have agreed to provide full support.

<table>
<thead>
<tr>
<th>Name</th>
<th>A/Prof Paul Smith</th>
</tr>
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<tr>
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<td>Orthopaedics</td>
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<tr>
<td>Position</td>
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Date

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I have discussed this study with the investigator(s) and I have agreed to provide full support.

<table>
<thead>
<tr>
<th>Name</th>
<th>Lisa Gilmore</th>
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<td>Physiotherapy</td>
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<tr>
<td>Position</td>
<td>Director</td>
</tr>
</tbody>
</table>

Date

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A3.2 **Endorsement of Divisional Head**

Head of Division Declaration –

I have discussed this study with the investigator(s) and
I have agreed to provide full support

Name
Division
Position
Signature

Date

A4. **Multi-centre studies**

Not applicable

A5. **Plain Language Description of the Project**

Health care delivery in Australia is in a process of reform as we explore ways to meet increased demand, effective and efficient models of care and workforce flexibility. Roles of health care workers are changing in response to these demands and the increased quality of care that is expected and deserved.

The extended scope of practice physiotherapy project is one such new model of care. This model of care emphasises multidisciplinary team work and best practice, within tertiary care hospitals. It is in place in several hospitals around Australia already and is commonplace in the UK. The extended scope of practice physiotherapy roles are being developed at Canberra Hospital under rigorous processes of accountability, communication, training and credentialing and interprofessional liaison.

This project proposes to evaluate the outcomes of the extended scope of practice physiotherapy service in emergency department and orthopaedic outpatients from their outset in order to monitor effects on waiting lists, waiting times, patient satisfaction and patient outcomes. Such an evaluation provides a level of external monitoring and scrutiny to ensure patient safety and patient outcomes, as well as supporting decisions for the continuity of the extended scope roles.
A6. Ethical Implications of the Project

It is important first to clarify the approval being requested by the ACTHEC.

This application is to approve the Project evaluation of the service. It is not for approval of the extended scope of physiotherapy role development.

The extended scope of practice physiotherapy service is under development by the clinicians of the hospital under leadership from the executive, a steering committee of representatives across the professions and across the clinical areas. Aspects of patient safety, professional training, duties and responsibilities are under development with human resources, and allied health, medical and nursing leadership.

The extended scope physiotherapy service pilots will be delivered by appropriately credentialed and appointed physiotherapists. As part of the pilot each patient who fits the eligibility criteria for assessment and management by the extended scope physiotherapist will be informed of the pilot program, and offered the opportunity to join it. The specific eligibility criteria for entry into the pilot project are currently being negotiated with medical staff in both sites, but are broadly acute/chronic musculoskeletal conditions without other systems involvement. Should patients not wish to participate in the pilot, their treatment will proceed as “usual” pathways. The number of patients who consent, or not, to join the pilot program is one element of the evaluation data which will be collected by administrative staff in Orthopaedic Outpatients and the Extended scope practitioner in ED.

Ethical implications for evaluation of the service:

This ethics application deals with the evaluation of the planned pilot Extended Scope Physiotherapy service.

Confidentiality: There is low risk to patients, because ACT Health or Canberra Hospital project staff will undertake record audits and map patient journeys.

Analysis for cost savings and changes in patient throughput will be undertaken on de-identified data extracted from regularly collected patient records.

Consent: Patients will consent to be seen in the pilot service, as is current practice with the Walk in clinic, and nurse practitioner roles. Patients will be asked for consent to participate in the evaluation of the project, separately, to complete patient satisfaction evaluation etc. (consent form attached)

Risk to patients: the evaluation of the service poses low risk to patients, as it comprises medical record audit, satisfaction questionnaire and semi-structured interviews (both are attached).

Risk to staff: the evaluation of the service poses low risk to staff, as it comprises of with consent semi-structured interviews only (see attached)

Benefits: patients will benefit from having a say in the development of the service. They will be able to voice positive or negative comments on the new service.
A7. **Details of the proposed project**

A7.1 **Background to Project**

**Extended Scope Physiotherapy Services**

Extended Scope Physiotherapy is where highly competent Physiotherapists, who are recognised by their peers as having specialist skills, work outside current scope to perform tasks that are currently performed by Doctors. Extended scope practice positions are well established internationally in nursing and allied health, in response to workplace pressures, workforce shortages, economic imperatives and changing patient needs (Hattam, P 2004; Jibuie, O O, et al 2003; Kirsten, P., et al 2007).

There is a considerable body of literature published internationally on evaluation of Extended Scope Physiotherapy programs which detail the benefits to the profession, the organisation, the healthcare system and to patients. ACT Health faces emergent challenges in areas of workforce recruitment, appropriate skill escalation and staff retention, and in the changing needs of patients (the ageing population, chronic disease burden). In order to meet these it maybe appropriate to introduce extended scope practice across a number of health disciplines (National Health Workforce Strategic Framework – April 2004).

Consequently ACT Health (the Allied Health Advisers Office) commissioned a systematic literature review of publications about extended scope physiotherapy practice, which could set the scene for the introduction of a pilot program in ACT Health in 2010 (Physiotherapy Extended Scope Practice: Phase 1 Final Report June 2008 – included with this application as appendix 1). This literature review was enhanced by a survey of local perceptions of stakeholders of the potential benefits and disadvantages of extending the scope of Physiotherapists in the ACT. The overall outcome of this preliminary work was that there were successful precedents overseas for the introduction of extended scope practice in Physiotherapy, and there were few barriers to its introduction in the ACT which could not be overcome with careful planning.

Most of the literature reported on extended scope physiotherapy in ED and Orthopaedic outpatients, reflecting the recognised musculoskeletal skill base of the physiotherapy profession. In both these sites, advantages of extended scope practice positions in Physiotherapy appear to be reduction in workload for busy Doctors, reduced waiting times, reduced duplication of effort and more streamlined patient journeys (Oldmeadow et al, 2007; Jibuie O O, et al 2003 Anal & Sheppard 2007; Bethel 2005; Bethur M.V., et al 2003). Disadvantages, identified from the literature and from the local surveys of stakeholders, largely appear to be potential violation of current discipline boundaries. Therefore its seems appropriate to pilot two extended scope physiotherapy practice positions at The Canberra hospital in ED and Orthopaedic Outpatients, using a careful, staged and rigorously evaluated approach. Provided the extended scope practitioners meet rigorous performance criteria, and their extended scope skills are recognised and validated by appropriate professional bodies, there is minimum opportunity for harm to occur to patients, and considerable opportunities for improved quality of care, systems improvement and enhanced patient outcomes.

Appendix 2 outlines the competencies required of the extended scope practice positions (Duty Statement and Selection Criteria – approved in principle ¹). These were developed from the preliminary analysis of the literature and local stakeholder perspectives (in appendix 1) and a review of competencies and job descriptions which have been published by organisation with

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¹ Any updated versions will be forwarded to the Ethics Committee
established extended scope practice positions. It is planned that applications will be called for two positions within the next 3 months, following completion of negotiations with relevant professional associations, training institutions and local stakeholders.

A7.2 Aims and Hypotheses

Aims
Evaluation of the pilot roles encompassing organisational, stakeholder and clinical outcome measures

Evaluation of the Orthopaedic Outpatient extended scope physiotherapy service:

• Decrease mean wait-time for Orthopaedic Outpatient appointment
• Decrease numbers added to the surgical wait-list
• Decrease waiting times for elective surgery

Evaluation of the emergency department extended scope physiotherapy service:

• Reduced time waiting to be seen
• Reduced length of stay in ED
• Relieve Medical staff for more complex cases (to be negotiated)

A7.3 Method(s)

Evaluation Design: Pre-post comparison of routinely-collected data to evaluate service outcomes, and capture of stakeholder perspectives of the pilot program using descriptive qualitative methodologies.

1. Historical platform description of “usual” practice using routinely collected de-identified patient data (pre implementation)².
2. Typical patient journeys pre and post extended scope physiotherapy implementation.
3. Prospective routinely collected de-identified patient data (post implantation).

A7.4 Number of Subjects with statistical validation

The evaluation will include data analysis of waiting times for all patients in ED and Ortho Outpatients clinics, during the service pilot period. Statistical analysis will compare waiting times pre-service implementation, post implementation, and compare the differences for those patients who were seen by the extended scope practitioner, and those who received standard care.

² The data for 1 and 3 is listed above in the hypotheses
Patient satisfaction questionnaires will be offered to all patients in the pilot service period, and they may choose whether to consent to complete them. A cohort of patients will be asked to consent to a semi-structured interview (see attached).

Analysis if the evaluation needs to include all the patients in the service period in order to be valid. Power and sample size analysis is not appropriate.

A7.5 Methods by which subjects will be recruited

- N/A

A7.6 Estimated duration of study

<table>
<thead>
<tr>
<th>Ethics application</th>
<th>July 2010</th>
</tr>
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<tbody>
<tr>
<td>ED evaluation:</td>
<td></td>
</tr>
<tr>
<td>Extended scope physiotherapy service estimated to commence in ED Sept 2010, for 6 months, and then review. Evaluation of the ED aspects of service times will commence as soon as ethics approval is acquired, and continue during the pilot service period</td>
<td></td>
</tr>
<tr>
<td>Orthopaedic Outpatients Evaluation</td>
<td></td>
</tr>
<tr>
<td>Start pre-service data collection</td>
<td></td>
</tr>
<tr>
<td>Collect data during service pilot period</td>
<td>Jan – June 2011</td>
</tr>
<tr>
<td>Estimated finish data collection</td>
<td>Oct 2011</td>
</tr>
<tr>
<td>Estimated data analysis and write up</td>
<td>Dec 2011</td>
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Project completion June 2012

A7.7 Proposed methods of Data analysis

Sample size

There is currently scant evidence on which to predict the likely sample of patients who will consult the extended scope practitioner in either ED or Orthopaedic Outpatients. Sources of Information (relates to evaluation design)

1. Consecutive patient records for 6 months prior to the implementation of the pilot will be sought from the Canberra Hospital patient records system to establish a historical platform for “usual” practice. For ED the records will be drawn from the Fastrack stream, in which there is a current primary contact physiotherapy program operating. This stream is most likely to be the one most influenced by the pilot. For Orthopaedic Outpatients, all consecutive patient records will be reviewed. From both sets of data a subset data base will be constructed by hospital IT support staff, comprising of patient descriptors (age, gender, diagnosis, discharge destination) and service descriptors (date of service, time of presentation, time of first consultation and time of discharge (where available), whom the patient consulted, imaging, prescriptions and ongoing referral).

This data will be analysed initially by diagnosis and the five most common diagnoses will be identified in both sites. All subsequent analysis will be undertaken by these diagnoses on the
understanding that the influence of the pilot program will be most noticeable in the high volume throughput data. For each diagnosis in each location descriptions will be made of patient characteristics, average waiting time, average time to first consultation, average length of stay, main healthcare providers, frequency of imaging (time waiting for results) and discharge destination and ongoing referrals. The purpose of this analysis is to establish a framework for comparison with the same data routinely collected post-implementation. For point 3 above the same data will be prospectively collected post-implementation and comparisons will be made at one month intervals for the period of the pilot. These comparisons will test the hypotheses previously listed.

2. Typical patients in each of the five main diagnostic codes in each setting will be identified by the in-house project officer. Choice of patients will be made on an understanding of common or challenging presentations to Physiotherapists currently working in a primary contact capacity in ED, or to Orthopaedic registrars/Consultants, who maybe seen in future by the new extended scope physiotherapy practitioner. Patient journeys will be mapped using data from a variety of sources extracted from the patient record system. Number of contacts and delays will be calculated and reported as a comparative baseline. After implementation typical patients in these diagnostic categories will be mapped to determine whether the journey changes, and whether contacts and/or delays change.

3. After implementation stakeholder perspective will be sought on whether the pilot program has influenced satisfaction. It is important to note that this aspect of the evaluation only seeks to establish whether there are negative perspectives regarding the new position. It does not seek to demonstrate changes in stakeholder satisfaction pre and post implementation.

a. Patients will be surveyed using the validated Patient Satisfaction Sub-scale instrument (Chernin D.C., et al 1991; Cherkin D.C., et 1996) which requires less than five minutes for completion (appendix 3). We anticipate capturing every patient on one day every month for the period of the pilot and seeking their responses to the questionnaire after they have consulted the extended scope physiotherapist.

b. Semi-structured interviews (Reeve, S., May, S., 2009; May, S., 2001) will be conducted by the in-house project officer with randomly selected patients (estimated 10% of the sample). Core components of the interview include whether patient were aware that they were being treated by an extended scope physiotherapist, their confidence in the assessment and treatment processes, their satisfaction with the communication and ongoing referral processes, and whether they would recommend this service to others.

c. Semi-structured interviews will be conducted by the in-house project officer with as many staff as appropriate in ED and Orthopaedic Outpatients within the first two months, and then again in the last two months of the pilot program. The interview sample will include representatives and key personnel from all health disciplines represented in these two sites, as well as administrative staff. Differences in key responses will be identified over time, particularly to identify whether initial barriers existed and whether these have been addressed over time. Core components of the interview include whether staff were confident with the extended scope practice assessment and treatment processes, their satisfaction and involvement with this, and with the communication and ongoing referral processes instigated by the physiotherapist, and whether they would recommend this service to others.

All interviews will be analysed per question to identify key themes, and changes over time will be mapped as modifications to key themes. For the staff interviews, these themes will also be assessed per staff group (interns, registrars etc)

Data storage
All data will be stored in-house on a secure server space.
External advice

Consultancy advice regarding data analysis and interpretation will be sought from iCAHE (University of South Australia), in light of their involvement in the earlier planning stages of this pilot project. This group has proposed the evaluation framework which will underpin the pilot program. This group has sought its own ethics approval from HREC, University of South Australia for its limited role in this project.

A8. Procedures differing from routine clinical practice/management of patient

Waiting times for services in ACT Health are monitored for service statistics and service delivery performance indicators. The use of this data to evaluate this new service pilot is a deviation, but does not effect patients.

Patient satisfaction of patients in ACT Health care is collected routinely, but the use of this for evaluation of this service pilot is specific to this study.

A9. Termination Criteria

A9.1 Circumstances in which an individual would be withdrawn from the study by the Investigator.

N/A

A9.2 Circumstances in which the entire project would be terminated (if applicable).

N/A

A10. Monitoring

Professor Karen Grimmer-Somers acts as external monitor for the service pilot. She is a member of the Steering Committee and the ED and Orthopaedic Committees.

As Director of the International Centre for Allied Health Evidence at the University of South Australia, she is uniquely placed to provide expert monitoring and criticism, as well as critical evaluation of the project.

A11. Dissemination of Project Results

• Who will benefit from the information obtained?

This pilot is to improve service delivery to patients of the ACT and Region, and better access to high quality health care.

• Where will the information be used and stored and for what length of time?
  • Evaluation will be performed on de-identified and not re-identifiable data.
- Patient satisfaction questionnaires will be kept in a locked cabinet at the Allied Health Advisors Office.

- **Where is it hoped to publish results?**
  Relevant health service conferences, and journals and relevant professional conferences and journals.

- **Safeguards to maintain confidentiality during and after completion of the study.**

  1. **Patient medical records:** are maintained in strictest confidence and only available to the care team and the medical student after approval by the hospital executive (approved Prof Paul Gatenby, Director of Research Sept 2008)

  2. **Data for research purposes:** Research information is accessible only in non-identifiable form. Individual patient codes are removed in this format. Data is password protected.

  3. **Permissions and publications:** will not reveal any information about individual patients.

**A12. Compensation**

No compensation will be offered to or available for, the participants.

**A13. Report of Project**

Annual reports concerning the database shall be provided to the ACTHREC.

**A14. Patient Information Sheet**

See attached information sheet

**A15. Informed Consent**

**A15.1 The Consent Form**

See attached patient consent form

**A15.2 Obtaining Consent**

Via attached consent form
ACT Health Human Research Ethics Committee (ACTHEC)

APPROVAL FROM HEAD OF DEPARTMENT

Project Title: Evaluation of the extended scope physiotherapy service pilots in emergency department and orthopaedic outpatients.

Chief Investigator:  Jo Morris

Department from which approval is sought: Research Office

Signature of Applicant: ________________________________

Head of Department Declaration:

I have discussed this study with the investigator and have agreed to provide assistance in the form of:

Advice and managerial support

Name:  Professor Gatenby

Department: Research Office

Position: Director of Research, Canberra Hospital

Signature: ________________________________

Date:  ____/____/______
1. Physiotherapist
   - ESP 1
   - ESP 2
   - Other PT

2. URN

3. Age
   Patient's DOB: [ ]/ [ ]/ [ ]

4. Date
   [ ]/ [ ]/ [ ]

5. Time Statistics
   - Triage Time: [HH]:[MM]
   - Time Seen: [HH]:[MM]
   - Discharge Time: [HH]:[MM]

6. Triage Category
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5

7. Where was the patient seen?
   - Fast Track
   - Acute
   Other (please specify)

8. What (if any) imaging was ordered?
   - XR
   - CT
   - MRI
   - US
   Other (please specify)

9. Did a Medical Officer review the imaging?
   - Yes
   - No

10. What Medication (if any) was prescribed?
    - Ibuprofen
    - Pandiene Forte
    - Endone
    - Naproxyn
    - Panadol
    - Lignocaine
    Other (please specify)
11. Was a Medical Officer involved in the prescription of the medication?
○ Yes
○ No

12. Was any pathology ordered?
○ Yes
○ No

13. Was a Medical Officer involved with the ordering of pathology?
○ Yes
○ No

14. For what differential diagnosis was the pathology ordered?

15. Did any paperwork need to be completed?
○ Worker’s Compensation
○ Other (please specify)

16. What was the ICD-9 coded diagnosis?

17. Describe the diagnosis.

18. Did the patient require a review by a Medical Officer?
○ Yes
○ No

19. Where was the patient referred on discharge?
○ Not Referred
○ LMO
○ Private Physio
○ Other (please specify)
○ Public Physio
○ Ortho RCC
○ # Clinic
○ Plastics RCC
○ Plastics Clinic
○ Sports Physician
**ADDITIONAL QUESTIONS FOR PATIENTS WHO HAVE BEEN PRESCRIBED MEDICATION:**

1. Did you take the tablets you were given? If not, why not?
2. Are you still taking the medication?
3. Have you had any side-effects? Such as nausea, vomiting, stomach cramps or heartburn?
4. Have your symptoms improved? If yes scale of 0-10 (see below). How much impact do you think the medication had on this?
5. Were you happy with the information you were provided about the medication?
6. Do have any other comments?

**Additional questions for patients who had an injection by a Physiotherapist:**

1. Did you have any side effects from the injection?
2. Did you follow the post-injection advice you were given, including rest?
3. Have your symptoms improved? If yes scale of 0-10 (see below).
4. If yes, how soon did you notice the improvement?
5. Were you happy with the information you were provided about the injection?
6. Do have any other comments in relation to the injection you were given?

**NB scale for improvement 0 is no improvement, 10 is symptoms have fully resolved.**

Questions 3 and 4 will not be asked if the patient has a ring block in the Emergency Department.
PATIENT SEMI-STRUCTURED INTERVIEWS: ORTHOPAEDICS

1. Were you happy with the care you received in the clinic?
2. Were you aware you were seeing a Physiotherapist instead of a Doctor?
3. Would you have preferred to see a Doctor?
4. What aspects of your care in the clinic did you particularly like?
5. Did the appointment meet your expectations?
6. Did the information you were given help you understand your problem?
7. Were you reassured about your problem?
8. How long did you have to wait for treatment in the clinic?
9. How does it compare to previous Canberra Hospital Outpatient appointments you have had?
10. How do you think your care could have been improved?
11. Would you recommend the service to others?
12. Is there anything you would like to add?
1. Were you happy with the care you received here today?
2. Were you aware you were seeing a Physiotherapist and not a Doctor?
3. Would you have preferred to see a Doctor?
4. What aspects of your care today did you particularly like?
5. Do you have any concerns regarding the treatment you received?
6. How does it compare to previous Canberra Hospital Emergency Department experiences you have had?
7. How do you think your care could have been improved?
8. How long did you have to wait for treatment today?
9. Would you recommend the service to others?
10. Is there anything you would like to add?
1. What do you like about the new physiotherapy extended role service?
2. Are there any aspects of the service that you would change?
3. Has the inclusion of the Physiotherapist
   a. freed your time up for other tasks?
   b. improved your satisfaction with service provision
   c. eased your workload?
4. Are you generally satisfied with the Physiotherapist’s assessment and treatment skills to undertake this new role?
5. Are there areas in which you feel that the Physiotherapist needs to improve?
6. Is communication from the Physiotherapist timely and appropriate?
7. Do you believe that the inclusion of the Physiotherapist has impacted on the quality of patient care, and can you provide examples if you believe that it has?

STAFF SEMI-STRUCTURED INTERVIEWS: ORTHOPAEDICS

STAFF SEMI-STRUCTURED INTERVIEWS: EMERGENCY DEPARTMENT

1. What do you like about the new physiotherapy extended role service?
2. Are there any aspects of the service that you would change?
3. Has the inclusion of the Physiotherapist
   a. freed your time up for other tasks?
   b. improved your satisfaction with service provision
   c. eased your workload?
4. Are you satisfied with the Physiotherapist’s assessment and treatment skills to undertake this new role?
5. Are there areas in which you feel that the Physiotherapist needs to improve?
6. Is the communication from the Physiotherapist timely and appropriate?
7. Do you feel that the Extended Scope Physiotherapist impacted on the patient’s journey through the department, and if so, how?
8. Do you believe that the inclusion of the Physiotherapist has impacted on the quality of patient care, and can you provide examples if you believe that it has?
EMERGENCY DEPARTMENT PATIENT INFORMATION SHEET – INTERVIEWS ABOUT EXTENDED SCOPE PHYSIOTHERAPY ROLES

When you came to the Emergency Department today, you were looked after by a physiotherapist. We are trialing a new service, in order to reduce waiting times and allow patients better access to services here at the hospital.

The new service is called an Extended Scope Physiotherapy role. It is supported by ACT Health. A specially trained physiotherapist works alongside the doctors and nurses, in an extended scope role.

We would like to assess the impact that the pilot extended scope physiotherapy roles have on patient care and service delivery, including patient satisfaction with the service, time waiting to be seen, whether appropriate care was received and to offer the opportunity for you to provide suggestions to improve the service.

We would like you to participate in an interview about the care you received in the Emergency Department. The interview takes 5-10 Minutes. You can bring a friend or family member with you.

The notes on the interview and the result of the whole evaluation will be kept in secure storage in The Office of the Allied Health Adviser, on a password-protected area of the ACT Health server, and papers in locked storage. It will be held for a period of three years, as determined by the ACT Health Human Research Ethics Committee.

In the event that you have any concerns or issues about this project, for example the way in which this study has been carried out, and you do not feel comfortable communicating with the staff conducting this survey; you can contact any of the following:

The Principal Researcher: Karen Murphy
The Office of the Allied Health Adviser
Level 3, 11 Moore Street, Canberra City ACT 2601
GPO Box 825 Canberra ACT 2601
Phone: 13 22 81 or +61 13 22 81 from overseas
Website: www.health.act.gov.au

Health Services Commissioner at the Human Rights Commission (for complaints regarding the health service provided):
Level 4, 12 Moore Street, Canberra, ACT 2601
Tel: (02) 6205 2222
human.rights@act.gov.au

ACT Health Human Research Ethics Committee
Building 10, Level 6, Canberra Hospital
Telephone (02) 6205 0846.
ACT Health is trialing a new service which aims to reduce waiting times and help patients access the most appropriate services for their specific needs.

The new service is called an Extended Scope Physiotherapy role and involves a specially trained physiotherapist working alongside the doctors and nurses, in an extended scope role.

We are seeking your help to assess the impact that the pilot Extended Scope Physiotherapy roles have on patient care and service delivery including: on how satisfied people are with the new service; any change to waiting times and whether appropriate care has been provided. We are also seeking your comments and suggestions on possible improvements to the service.

To provide this input, we invite you to participate in a 5-10 minute interview about the new Extended Scope Physiotherapy service in the Orthopaedic Outpatient Department. Please feel free to bring a colleague with you.

Please note that all notes taken during interviews are de-identified and pooled for the evaluation. The information collected will also be stored securely in accordance with the ACT Health Human Research Ethics Committee standards—electronic information will be in a password-protected area of the ACT Health server, while paper documentation will be locked in the Allied Health Advisors office for a period of three years.

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Building 10, Level 6, Canberra Hospital
Telephone (02) 6205 0846.
ORTHOPAEDIC OUTPATIENT PATIENT INFORMATION SHEET – INTERVIEWS ABOUT EXTENDED SCOPE PHYSIOTHERAPY ROLES

When you came to the Orthopaedic Outpatient department today, you were looked after by a physiotherapist. We are trialing a new service, in order to reduce waiting times and allow patients better access to services here at the hospital.

The new service is called an Extended Scope Physiotherapy role. It is supported by ACT Health. A specially trained physiotherapist works alongside the doctors and nurses, in an extended scope role.

We would like to assess the impact that the pilot extended scope physiotherapy roles have on patient care and service delivery, including patient satisfaction with the service, time waiting to be seen, whether appropriate care was received and to offer the opportunity for you to provide suggestions to improve the service.

We would like you to participate in an interview about the care you received in Orthopaedic Outpatients. The interview takes 5-10 Minutes. You can bring a friend or family member with you.

The notes on the interview and the result of the whole evaluation will be kept in secure storage in The Office of the Allied Health Adviser, on a password-protected area of the ACT Health server, and papers in locked storage. It will be held for a period of three years, as determined by the ACT Health Human Research Ethics Committee.

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INTERVIEWS ABOUT EXTENDED SCOPE PHYSIOTHERAPY ROLES

ACT Health is trialing a new service which aims to reduce waiting times and help patients access the most appropriate services for their specific needs.

The new service is called an Extended Scope Physiotherapy role and involves a specially trained physiotherapist working alongside the doctors and nurses, in an extended scope role.

We are seeking your help to assess the impact that the pilot Extended Scope Physiotherapy roles have on patient care and service delivery including: on how satisfied people are with the new service: any change to waiting times and whether appropriate care has been provided. We are also seeking your comments and suggestions on possible improvements to the service.

To provide this input, we invite you to participate in a 5-10 minute interview about the new Extended Scope Physiotherapy service in the Orthopaedic Outpatient Department. Please feel free to bring a colleague with you.

Please note that all notes taken during interviews are de-identified and pooled for the evaluation. The information collected will also be stored securely in accordance with the ACT Health Human Research Ethics Committee standards—electronic information will be in a password-protected area of the ACT Health server, while paper documentation will be locked in the Allied Health Advisors office for a period of three years.

In the event that you have any concerns or issues about this project, for example the way in which this study has been carried out, and you do not feel comfortable communicating with the staff conducting this survey; you can contact any of the following:

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MDT GENERIC CLINIC OUTCOME FORM FOR DOCTORS

Primary Outcome
☐ (1) Return appointment MDT clinic - Timeframe
☐ (2) Consultant OP WL – (a) Urgent ☐ (b) Semi-Urgent ☐ (c) Routine ☐
☐ (3) Trial of conservative Rx
☐ (6) Care complete, discharge from clinic and close referral
Did the patient need to be on the Outpatient Orthopaedic wait-list? YES / NO

Secondary Outcomes

Treatment/Investigation
(1) CT ☐ (2) Ultrasound ☐
(3) MRI ☐ (4) Pathology ☐
(5) X-Ray ☐ (6) Bone Scan ☐
(7) Prescription ☐ (8) Injection/Aspiration ☐

Referred for conservative management
(1) Public Physio ☐ (2) Private Physio ☐ (3) Aquatic PT ☐
(4) Public O.T. ☐ (5) Private O.T. ☐
(6) Public Dietitian ☐ (7) Private Dietician ☐
(8) Public Podiatry ☐ (9) Private Podiatry ☐ (10) Orthotics ☐
(11) Comms ex program ☐ (12) Med review via GP ☐

Referred to other Medical Unit
(1) Rheumatology ☐ (2) Pain Clinic (via GP) ☐ (3) Vascular ☐
(4) Neurosurgery ☐ (5) Lymphoedema ☐ (6) Neurology ☐

Conclusion
☐ (1) OA ☐ (2) RA
☐ (3) Fracture ☐ (4) Acute Internal Derangement
☐ (5) Ligamentous ☐ (6) Chronic Internal Derangement
☐ (7) Tendinopathy ☐ (8) Bursitis ☐
☐ (9) Impingement ☐ (10) PFJ
☐ (11) Other (specify)

MAPT: ____________________
MDT OUTCOME FORM FOR PHYSIOTHERAPISTS

Primary Outcome

- Reinstated on Consultant OP WL - Urgent [ ] Semi-Urgent [ ] Routine [ ]
- Trial of conservative Rx, anticipate cancelling OP appointment [ ]
- CLD - re-booked [ ] to be re-booked [ ] to be D/C'd and close referral [ ]
- DNA - to be re-booked [ ] to be D/C'd and close referral [ ]
- Care complete, discharge from clinic and close referral [ ]
- Did the patient need to be on the Outpatient Orthopaedic wait list? [ ] YES [ ] NO

Secondary Outcome

Further Investigation

- CT [ ] MRI [ ] Ultrasound [ ] Pathology [ ] X-Ray [ ] Bone Scan [ ]

Referred for conservative management

Public Physio [ ] Private Physio [ ] Aquatic [ ]
Public O.T. [ ] Private O.T. [ ]
Public Dietitian [ ] Private Dietitian [ ]
Public Podiatry [ ] Private Podiatry [ ] Orthotics [ ]
Common ex program [ ] Med review via GP [ ] Prescription [ ]

Referred to other Medical Unit

Rheumatology [ ] Pain Clinic (via GP) [ ] Vascular [ ]
Oncology [ ] Neurology [ ]

Clinic Data

PSFS: [ ] Allocated number: [ ] MAPT: [ ]
Other: [ ]

Patient required ESP identified tasks:

Injection/aspiration [ ] Outside scope imaging [ ]
Prescription [ ] Panadol [ ] Ibuprofen [ ] Naproxyn [ ]

Where patient referred for ESP task:

MDT clinic [ ] Ortho [ ] Rheumatology [ ] GP [ ] U/S [ ]

Conclusion

- OA [ ] Fracture [ ] RA [ ] Acute Internal Derangement [ ]
- Ligamentous [ ] Chronic Internal Derangement [ ]
- Tendinopathy [ ] Bursitis [ ] Impingement [ ] P/FJ [ ]
- Other (specify) [ ]

KEY FOR MDT OUTCOME FORM FOR PHYSIOTHERAPISTS

MDT – CLINIC OUTCOME FORM FOR PHYSIOs

Primary Outcome

☐ (1) Return Appointment to MDT clinic - Timeframe
☐ (2) Remain on Consultant OP WL – (a) Urgent (b) Semi-Urgent (c) Routine
☐ (3) Trial of conservative Rx, anticipate cancelling OP appointment
☐ (4) CLD – (a) re-booked (b) to be re-booked (c) to be D/C’d and close referral
☐ (5) DNA – (a) to be re-booked (b) to be D/C’d and close referral
☐ (6) Care complete, Discharge from clinic and close referral

Did the patient need to be on the Outpatient Orthopaedic wait-list? YES / NO

Secondary Outcome

Further Investigation

☐ (1) CT
☐ (3) MRI
☐ (5) X-Ray

☐ (2) Ultrasound
☐ (4) Pathology
☐ (6) Bone Scan

Referred for conservative management

☐ (1) Public Physio
☐ (4) Public O.T.
☐ (6) Public Dietician
☐ (8) Public Podiatry
☐ (11) Comm ex program

☐ (2) Private Physio
☐ (5) Private O.T.
☐ (7) Private Dietician
☐ (9) Private Podiatry
☐ (12) Med review via GP

☐ (3) Aquatic PT
☐ (10) Orthotics

Referred to other Medical Unit

☐ (1) Rheumatology
☐ (2) Pain Clinic (via GP)
☐ (3) Vascular

☐ (4) Neurosurgery
☐ (5) Lymphoedema
☐ (6) Neurology

Clinic Data

PSFS _____ MAPT _____ Other ________

Patient required ESP identified tasks:

☐ Injection/aspiration
☐ Outside scope imaging
☐ Prescription (a) Panadol (b) Ibuprofen (c) Naproxyn

Where patient referred to for ESP task:

☐ (1) MDT clinic
☐ (2) Ortho
☐ (3) Rheumatology
☐ (4) GP

Conclusion

☐ (1) OA
☐ (3) Fracture
☐ (5) Ligamentous
☐ (7) Tendinopathy
☐ (9) Impingement
☐ (11) Other (specify)

☐ (2) RA
☐ (4) Acute Internal Derangement
☐ (6) Chronic Internal Derangement
☐ (8) Bursitis
☐ (10) PF-J
# Physiotherapy Led Outcome Form

## Primary Outcome
- [ ] Return Appointment Physiotherapy clinic - Timeframe
- [ ] Reinstatement on Consultant OPWL - Urgent [ ] Semi-Urgent [ ] Routine [ ]
- [ ] Trial of conservative Rx, anticipate cancelling OP appointment [ ]
- [ ] Referred to MDT Clinic [ ]
- [ ] CLD - re-booked [ ] to be re-booked [ ] to be D/C’d and close referral [ ]
- [ ] DNA - to be re-booked [ ] to be D/C’d and close referral [ ]
- [ ] Care complete, discharge from clinic and close referral [ ]

**Did the patient need to be on the Outpatient Orthopaedic wait-list?**

**YES / NO**

## Secondary Outcome

### Further Investigation
- [ ] CT
- [ ] MRI
- [ ] Ultrasound
- [ ] Pathology
- [ ] X-Ray
- [ ] Bone Scan

### Referred for Conservative Management
- [ ] Public Physio
- [ ] Private Physio
- [ ] Aquatic Physio
- [ ] Public O.T.
- [ ] Private O.T.
- [ ] Public Dietician
- [ ] Private Dietician
- [ ] Public Podiatry
- [ ] Private Podiatry
- [ ] Orthotics
- [ ] Comm ex program
- [ ] Med review via GP
- [ ] Prescription

### Referred to Other Medical Unit
- [ ] Rheumatology
- [ ] Pain Clinic (via GP)
- [ ] Vascular
- [ ] Neurosurgery
- [ ] Lymphedema
- [ ] Neurology

### Clinic Data
- PSFS: [ ] Allocated Number: ( )
- MAPT: [ ] Allocated Number: ( )

### Patient Required ESP
- [ ] Identified tasks:
  - Injection/aspiration
  - Outside scope imaging
  - Prescription
  - Paracetamol
  - Ibuprofen
  - Naproxyn

### Where patient referred to for ESP task:
- [ ] MDT clinic
- [ ] Ortho
- [ ] Rheumatology
- [ ] CP
- [ ] US

### Conclusion
- [ ] OA
- [ ] RA
- [ ] Fracture
- [ ] Acute Internal Dorangement
- [ ] Ligamentous
- [ ] Chronic Internal Dorangement
- [ ] Tendinitis
- [ ] Bursitis
- [ ] Impingement
- [ ] Other (specify)
# Key for Physiotherapy LED Outcome Form

## Primary Outcome
- [ ] 1. Return Appointment to Physio-led clinic - Timeframe
- [ ] 2. Remain on Consultant OP WL - (a) Urgent (b) Semi-Urgent (c) Routine
- [ ] 3. Trial of conservative Rx
- [ ] 4. Referral to MDT Clinic
- [ ] 5. CLD - (a) re-booked (b) to be re-booked (c) to be D/C’d and close referral
- [ ] 6. DNA - (a) to be re-booked (b) to be D/C’d and close referral
- [ ] 7. Care complete, Discharge from clinic and close referral
- [ ] Did the patient need to be on the Outpatient Orthopaedic wait-list? YES / NO

## Secondary Outcome
### Further Investigation
- [ ] CT
- [ ] MRI
- [ ] Ultrasound
- [ ] Pathology
- [ ] X-Ray
- [ ] Bone Scan
- [ ] Y/N under each Heading and Y/N is ESP role applicable

### Referred for conservative management
- [ ] (1) Public Physio
- [ ] (2) Private Physio
- [ ] (3) Aquatic PT
- [ ] (4) Public O.T.
- [ ] (5) Private O.T.
- [ ] (6) Public Dietician
- [ ] (7) Private Dietician
- [ ] (8) Public Podiatry
- [ ] (9) Private Podiatry
- [ ] (10) Orthotics
- [ ] (11) Comm ex program
- [ ] (12) Med review via GP
- [ ] (11) Prescription

### Referred to other Medical Unit
- [ ] (1) Rheumatology
- [ ] (2) Pain Clinic (via GP)
- [ ] (3) Vascular
- [ ] (4) Neurosurgery
- [ ] (5) Lymphoedema
- [ ] (6) Neurology

### Clinic Data
- [ ] PSFS
- [ ] MAPT
- [ ] Other

### Patient required ESP Identified tasks:
- [ ] Injection/aspiration
- [ ] Outside scope imaging
- [ ] Prescription - (a) Panadol (b) Ibuprofen (c) Naproxyn

### Where patient referred to for ESP task:
- [ ] (1) MDT clinic
- [ ] (2) Ortho
- [ ] (3) Rheumatology
- [ ] (4) GP

### Conclusion
- [ ] (1) OA
- [ ] (2) RA
- [ ] (3) Fracture
- [ ] (4) Acute Internal Derangement
- [ ] (3) Ligamentous
- [ ] (4) Chronic Internal Derangement
- [ ] (5) Tendinopathy
- [ ] (6) Bursitis
- [ ] (7) Impingement
- [ ] (8) PFJ
- [ ] (9) Other (specify)
### Key to ESP Physiotherapy Emergency Department Outcome Form

<table>
<thead>
<tr>
<th>PHYSIO:</th>
</tr>
</thead>
</table>

**STATS:**
- Triage Time: 
- Time Seen: 
- Discharge Time: 
- Triage Category: 
- Direct/Indirect: 

**Seen in?**
- Fast Track ① Acute ②

**Imaging?**
- None ① XR ② CT ③ MRI ④ US

**Medical review of imaging required?** Yes □ No □

**Medication?**
- None ① Ibuprofen ② Naproxyn ③ Panadol ④ Endone ⑤ Lignocaine

**Medical review of medication required?**

**Paperwork?**
- None ① Worker’s Comp ② Other ____________

**Diagnosis:** ____________ (obtained from EDs diagnosis)

**Was the patient reviewed by a medical officer?** Yes □ No □

**Referral?**
- None ① LMO ② Private Physio ③ Public Physio ④ Ortho RRC ⑤ # Clinic ⑥ Plastics RRC ⑦ Plastics Clinic ⑧ Sports Physician ⑨ Other: ____________
# SHOULDER SELF-ASSESSMENT OF FUNCTION FORM

Complete details or affix label

- URN: 
- Surname: 
- Given name: 
- DOB: 
- Gender: 

ACT Health

**Shoulder Self Assessment of Function**

**Physiotherapy**

Please rate your ability to do the following tasks with your injured / operated shoulder by placing a ✓ in the box.

**Date of Assessment:** ___/___/___

<table>
<thead>
<tr>
<th>Task</th>
<th>0 Normal</th>
<th>1 Mild Compromise</th>
<th>2 Difficult</th>
<th>3 Very Difficult</th>
<th>4 Cannot do at all</th>
<th>Cannot say</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use back pocket</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wipe after bowel movement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash opposite underarm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat with a fork or spoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comb hair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use hand at shoulder level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carry 5 – 6 kg by side</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep on affected side</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use arm over head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throwing</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lifting</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do usual work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do usual sport</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### THE PATIENT SPECIFIC FUNCTION SCALE FORM

**ACT Health**

**The Patient-Specific Function Scale**

**Physiotherapy**

**CLINICIAN TO READ AND FILL IN:** Complete at the end of history and prior to physical. Complete at the end of history and prior to physical.

**Date:** __________ / __________ / __________

**Read at Baseline Assessment**

I’m going to ask you to identify **up to 3 important activities** that you are unable to do or have difficulty with as a result of your __________ problem.

Today, are there any activities that you are unable to do or have difficulty with because of your __________ Problem (show scale).

**Read at follow-up visits**

When I assessed you on **(state previous assessment date)**, you told me that you had difficulty with **(read 1, 2, 3 from list)**.

Today, do you still have difficulty with 1 (have patient score each activity); 2 (have patient score each activity); 3 (have patient score each activity);

**Scoring scheme:** (show patient scale):

<table>
<thead>
<tr>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
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<tr>
<td>5</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
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<tr>
<td>9</td>
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<tr>
<td>10</td>
</tr>
</tbody>
</table>

**Unable to perform activity**

**Able to perform activity at pre-injury level**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date / Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
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<tr>
<td>4</td>
<td></td>
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<tr>
<td>5</td>
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**Signature:** ___________________________  **Print Name:** ___________________________

**Designation:** ___________________________  **Date:** __________ / __________ / __________

THE ROLAND – MORRIS DISABILITY QUESTIONNAIRE

ACT Health

The Roland – Morris Disability Questionnaire
Continuing Care - Physiotherapy

When your back hurts, you may find it difficult to do some of the things you normally do. This list contains some sentences that people have used to describe themselves when they have low back pain. As you read the list, think of yourself today. When you read a sentence that describes you today, put a tick next to it. If the sentence does not describe you, then leave the space blank and go on to the next one.

Date: ___/___/___ Score _____/50

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I stay at home most of the time because of my back.</td>
</tr>
<tr>
<td>2.</td>
<td>I change position frequently to try and get my back comfortable.</td>
</tr>
<tr>
<td>3.</td>
<td>I walk more slowly than usual because of my back.</td>
</tr>
<tr>
<td>4.</td>
<td>Because of my back I am not doing any of the jobs that I usually do around the house</td>
</tr>
<tr>
<td>5.</td>
<td>Because of my back, I use a handrail to go up stairs.</td>
</tr>
<tr>
<td>6.</td>
<td>Because of my back, I lie to rest more often</td>
</tr>
<tr>
<td>7.</td>
<td>Because of my back, I have to hold onto something to get out of an easy chair.</td>
</tr>
<tr>
<td>8.</td>
<td>Because of my back, I try to get other people to do things for me.</td>
</tr>
<tr>
<td>9.</td>
<td>I get dressed more slowly because of my back</td>
</tr>
<tr>
<td>10.</td>
<td>I only stand up for short periods of time because of my back.</td>
</tr>
<tr>
<td>11.</td>
<td>Because of my back, I try not to bend or kneel.</td>
</tr>
<tr>
<td>12.</td>
<td>I find it difficult to get out of chair because of my back.</td>
</tr>
<tr>
<td>13.</td>
<td>My back is painful almost all the time.</td>
</tr>
<tr>
<td>14.</td>
<td>I find it difficult to turn over in bed because of my back.</td>
</tr>
<tr>
<td>15.</td>
<td>My appetite is not very good because of my back.</td>
</tr>
<tr>
<td>16.</td>
<td>I have trouble putting on my socks (or stocking) because of the pain in my back.</td>
</tr>
<tr>
<td>17.</td>
<td>I only walk short distances because of my back pain.</td>
</tr>
<tr>
<td>18.</td>
<td>I sleep less well because of my back.</td>
</tr>
<tr>
<td>20.</td>
<td>I sit down most of the day because of my back.</td>
</tr>
<tr>
<td>21.</td>
<td>I avoid heavy jobs around the house because of my back.</td>
</tr>
<tr>
<td>22.</td>
<td>Because of my back pain, I am more irritable and bad tempered with people than usual.</td>
</tr>
<tr>
<td>23.</td>
<td>Because of my back, I go upstairs more slowly than usual.</td>
</tr>
<tr>
<td>24.</td>
<td>I stay in bed most of the time because of my back.</td>
</tr>
</tbody>
</table>
The role of extended scope physiotherapists in managing patients with inflammatory arthropathies: a systematic review

Objectives: To review the literature to identify whether, and how, physiotherapists working in extended scope of practice (ESP) engage with patients with inflammatory arthropathies. Measures of effectiveness of ESP were particularly sought.

Methods: A comprehensive library database search was conducted to identify English language studies published in full text in peer-reviewed journals during the years 2002–2012. Studies were allocated into the National Health and Medical Research Council hierarchy of evidence, but were not critically appraised. Data was extracted on conditions treated, ESP roles and responsibilities, and effectiveness. Data was analyzed and reported descriptively.

Results: We identified 123 studies, and included four. All were low hierarchy (highest being one level III_2 study). Commonly reported conditions were rheumatoid arthritis and ankylosing spondylitis. Information was provided on activities of role extension, such as triaging patients, monitoring and recommending changes to medications, referring to other health and medical professionals, and ordering and interpreting imaging. There was blurring between ESP and non-ESP roles. No study reported measures of effectiveness.

Conclusion: There are descriptors of ESP physiotherapy activities, but no evidence of effectiveness of ESP physiotherapy in managing patients with inflammatory arthropathies.

Keywords: ESP, extended scope, rheumatoid arthritis, ankylosing spondylitis, inflammatory arthropathy, physiotherapy

Background
We conducted a review of the literature to establish whether and how physiotherapists working in extended scope of practice (ESP) roles manage patients with inflammatory arthropathies. Working in ESP involves performing tasks outside the usual scope of physiotherapy practice, including injecting, requesting and interpreting imaging and other investigations, prescribing, referring patients to medical providers, and listing patients for surgery.1,2

A review of the roles undertaken by physiotherapists working in ESP in any field was conducted by Lowe and Prior in 2008.3 At this time, only limited data were reported regarding the role of ESP physiotherapists in rheumatology.

Recently, we published a systematic review4 of literature describing the roles and effectiveness of ESP physiotherapists managing orthopedic outpatients. This review built upon the orthopedic component of the Lowe and Prior review, identifying six additional studies. The new studies were of a lower level of evidence, but suggested that the role of ESP physiotherapists in managing orthopedic outpatients may lead to improved efficiency, in terms of patient management pathways. Our review also
suggested that ESP physiotherapists may achieve outcomes equivalent to medical practitioners, in terms of diagnosing orthopedic conditions.

Inflammatory arthropathies refer to the presence of true inflammation in the joint tissues, particularly the synovium. This should not be confused with osteoarthritis which is a degenerative condition of the joints. The term inflammatory arthropathies includes septic arthritis, gout, rheumatoid arthritis, ankylosing spondylitis, reactive arthritis, and psoriatic arthritis. The primary features of these conditions are dysfunction, joint pain, and joint destruction. Management aims of these conditions focus on symptom relief, managing the autoimmune or inflammatory processes underlying the conditions, or surgery to correct deformities or to repair joints.

This review explores whether there is new literature regarding the roles of ESP physiotherapists in managing patients with inflammatory arthropathies, the conditions they treat, the environments in which they work and with whom they work, and what outcomes are achieved from working in these roles.

Methods
Research questions
The review research questions were:
1. What peer-reviewed literature has been published in the last 10 years describing the roles of ESP physiotherapists in managing patients with inflammatory arthropathies?
2. Where do these ESP physiotherapists work, how do they work, and with whom do they work?
3. What benefits are there for patients with inflammatory arthropathies in being managed by an ESP physiotherapist?
4. Are there benefits for the health system, or other health providers, of having physiotherapists working in ESP roles for patients with inflammatory arthropathies?

Search criteria
An electronic database search was conducted in January 2012 to identify studies published in English in full text peer-reviewed journals in the past 10 years (2002–2012), regarding ESP physiotherapists management of patients with inflammatory arthropathies. This was conducted by one author with independent advice provided by a second author. Studies which investigated the management of arthritis, without stating whether this was of an inflammatory nature, were excluded. Lowe and Prior found in 2008 that ESP in any area of physiotherapy practice was a relatively new phenomenon, and that the bulk of the literature had been reported since 2000, with no peer-reviewed studies published at this time. Our review built on this finding, by limiting the search timeframe to 10 years.

The interventions administered by the ESP physiotherapist had to be specifically defined as ESP roles, or interventions relevant to Australian conditions. ESP in Australia is conceptualized as part of a skills escalator program, which describes a continuum of activities undertaken by allied health assistants, in-scope, advanced and then extended scope allied health practitioners. Thus the definition provided by the Australian Physiotherapy Association was used, for extension of scope of practice:

A role that is outside the currently recognised scope of practice and requires legislative change. Extended scope of practice requires some method of credentialing following additional training, competency development and significant clinical experience. Examples include prescribing, injecting and surgery. This role describes the breadth of practice.

However, we were cognizant of the difficulties that we may encounter in this review, in terms of capturing activities that were truly an extension of physiotherapy scope of practice in Australia. Difficulties included the way physiotherapy practices operated in the countries in which the included research had been conducted. McPherson et al7 and Sibbald et al8 highlighted the importance of understanding country-specific activities when considering role extension, for instance impact of historical practice, legislative constraints, local interprofessional relationships, environmental constraints, and training. Thus in this review, we were interested in any activity which was described in the included paper as outside scope of practice in that country.

Studies of any hierarchy, reporting any information on ESP management of patients with inflammatory arthropathies were eligible for inclusion.

Search terms
The search terms reported in Table 1 were searched in all text/fields in each database, with results limited to those published 2002–2012.

Databases searched
Cochrane Library; EBSCOhost (Academic Search Premier, AgeLine, CINAHL, E-Journals, Health Business Elite, Health Source: Consumer Edition, Health Source: Nursing/Academic
**Table 1** Search terms

<table>
<thead>
<tr>
<th>Physiotherapy terms</th>
<th>ESP terms</th>
<th>Inflammatory arthropathy terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>physiotherapist</td>
<td>“extended scope”</td>
<td>rheumatoid arthritis OR rheumatoid arthralgia</td>
</tr>
<tr>
<td>AND</td>
<td>OR “extended practice”</td>
<td>OR “ankylosing spondylitis” OR “reactive arthritis” OR Reiter’s arthritis</td>
</tr>
<tr>
<td>OR “physical ther”</td>
<td>OR ESP</td>
<td>“psoriatic arthritis” OR “arthritis psoriatica” OR “arthropathic psoriasis” OR “juvenile idiopathic arthritis” OR “juvenile chronic arthritis” OR gout OR podagra OR “septic arthritis” OR “infectious arthritis” OR “suppurative arthritis” OR “pyogenic arthritis”</td>
</tr>
</tbody>
</table>

Edition, SPORTDiscus; Ovid (AMED, Embase, Medline, Nursing Database); Scopus; and PubMed were searched.

**Level of evidence**
The study design was determined, and the study assigned a hierarchy of evidence according to the National Health and Medical Research Council (NHMRC) Level of Evidence.9

**Critical appraisal**
Only studies classified as Levels I, II or III.1 were intended for critical appraisal, as the inherent methodological bias in studies of lower hierarchy designs was likely to attenuate the believability of findings. The relevant Critical Appraisal Skills Program tool10 would be applied if critical appraisal was indicated.

**Data extraction**
The following data were manually extracted into a purpose-built Excel spreadsheet (Microsoft, Redmond, WA), with the following headings: the year of publication, country, type of research, the definition reported for ESP physiotherapists, the clinical environment, other staff they work with, ESP tasks, specific conditions managed, and/or any potential benefits of implementing an ESP physiotherapy role in terms of health, process and/or cost measures. Data were extracted by one author with independent advice from a second author regarding the type of data extracted.

**Results**
We identified 123 potentially relevant studies. Ten were duplicates (subsequently removed), whilst a further 102 studies were removed after screening the title and abstract. Of the eleven remaining studies, six were excluded as inflammatory arthropathies were not managed, and one was excluded as it did not report on ESP physiotherapists. Four studies were therefore included in this review. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram13 is reported in Figure 1.

**Year, country, research type, and NHMRC level of evidence**
The included papers had been published in two countries (Canada and The Netherlands) (see Table 2). All included studies were published from 2008 onwards. A variety of study designs were represented, although they were generally of low hierarchy as reported in Table 2.

**Critical appraisal**
None of the studies met the inclusion criteria necessary for critical appraisal.

**Data extraction**
**Definitions for ESP physiotherapy**
MacKay et al15 noted the variation of terms used to describe extended practice roles, and consequently referred to these as expanded roles of practice (expanded role providers), defined as “those requiring advanced clinical skills and knowledge, which often include performing additional acts such as ordering diagnostic tests or prescribing medications”.

Conversely Li et al12 applied the Chartered Society of Physiotherapy (UK)2 definition of ESP physiotherapists, physiotherapists “who are working beyond the recognized scope of practice of the profession of interest in innovative or non-traditional roles”.

**Clinical environment in which they worked**
According to MacKay et al the clinical environments in which ESP physiotherapists (or expanded role providers) work included outpatient hospital settings, triaging roles, and as part of clinical assessment and treatment services (CATS).15

**Multidisciplinary approach**
MacKay et al also noted that ESP physiotherapists were described as working with occupational therapists, podiatrists, other physiotherapists (including ESP and consultant physiotherapists), primary physicians or general practitioners with

special interests in rheumatology, and medical specialists such as orthopedic surgeons and rheumatologists.  

Types of inflammatory arthropathies managed 
ESP physiotherapists have been reported to manage patients with rheumatoid arthritis,12,14,15 ankylosing spondylitis,16 and psoriatic arthritis.17 Some patients may also be undiagnosed when they commence management with the ESP physiotherapist.12,14 Lineker et al13 compared the diagnoses of the patients who consulted ESP physiotherapists with those from experienced physiotherapists, as reported in Table 3.

Table 2 Year, country, research type, and NHMRC level of evidence

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Country</th>
<th>Study design</th>
<th>Level of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li et al12</td>
<td>2010</td>
<td>Canada and Netherlands</td>
<td>Cross-sectional</td>
<td>III_2</td>
</tr>
<tr>
<td>Lineker et al13</td>
<td>2011</td>
<td>Canada</td>
<td>Retrospective</td>
<td>III_2</td>
</tr>
<tr>
<td>Lundon et al14</td>
<td>2011</td>
<td>Canada</td>
<td>Pre-post</td>
<td>IV</td>
</tr>
<tr>
<td>Mackay et al15</td>
<td>2008</td>
<td>Canada</td>
<td>Qualitative</td>
<td>NA</td>
</tr>
</tbody>
</table>

Abbreviation: NHMRC, National Health and Medical Research Council.

ESP physiotherapy tasks
Lundon et al14 presented a training program for ESP physiotherapists and occupational therapists that was specifically aimed at the management of patients with rheumatoid arthritis and osteoarthritis. The ESP tasks developed in this course included ordering and interpreting investigations (diagnostic imaging and laboratory tests), triaging patients, monitoring medications, and managing patients with selected forms
of arthritis independent of medical practitioners. It was not clear from this paper which of these tasks related to the management of rheumatoid arthritis, compared with osteoarthritis.

According to MacKay et al,13 patients were referred to ESP physiotherapists by primary care physicians, and ESP physiotherapists referred patients to other health and medical professionals, and made recommendations regarding medications (or changes to current medications).

ESG tasks being performed by non-ESP physiotherapists

The lack of a clear definition regarding the roles and responsibilities of ESP physiotherapists in managing inflammatory arthropathies means that there are variations in the descriptions of what constitutes an extended scope task.

Li et al surveyed Dutch and Canadian physiotherapists who had consulted with a patient with rheumatoid arthritis within the last month. The Canadian therapists were working in orthopedics, whilst the Dutch physical therapists formed two groups; those who were members of a regional arthritis network, and those working in any area of physical therapy. These therapists did not necessarily class themselves as ESP therapists. For the purpose of this review, we extracted data only on those physiotherapists who had consulted a patient with rheumatoid arthritis within the last month. Only 5.9% of the physiotherapists from Canada, and 1% and 0% of the physical therapists from the respective Netherlands groups, stated that they worked outside the usual scope of physiotherapy practice. However, screening patients for physicians and referring patients to other health professionals are generally considered ESP roles, yet a greater percentage of respondents reported carrying out these tasks, as reported in Table 4.

A similar situation was reported by Lineker et al where both experienced and ESP physiotherapists reported making the following referrals: internal referrals for physiotherapy, occupational therapy, social work, home care or community care access center, rheumatology, x-rays, and laboratory work. The only referral made by ESP physiotherapists which was not made by experienced physiotherapists was to general practitioners, although this is likely to be due to the patient notes examined rather than it not being an ESP task. Both experienced physiotherapists and ESP physiotherapists provided education about medications to their patients, however, it was not reported what this entailed and cannot therefore be assumed that this inferred any ESP role. The referral tasks conducted by experienced physiotherapists appeared to be within-scope and therefore should be interpreted with caution, as this may be organization- or country-specific.

Benefits of ESP physiotherapists

There was no information about the benefits of ESP physiotherapists managing patients with inflammatory arthropathies in terms of health, cost and/or process measures. Therefore this review found no evidence, at this point in time, of the effectiveness of the role of extended scope physiotherapists for patients with inflammatory arthropathies.

Discussion

This review presents the first known synthesis of peer-reviewed literature on the roles and responsibilities of physiotherapists working in extension of scope, in the management of patients with inflammatory arthropathies. All included studies were published since 2008, indicating the increased research interest in this area.

The available research literature base is scant, and of low hierarchy evidence, with the highest hierarchy study design level III.2. The most common conditions ESP physiotherapists were reported to be treating were rheumatoid arthritis and ankylosing spondylitis. No study reported on the benefits of implementing ESP physiotherapy roles for...
patients with inflammatory arthropathies, hence there is no
evidence regarding the value of implementing such roles.

There remains no consensus regarding the definitions
of ESP in this area, and there are discrepancies regarding
the terminology. For instance, MacKay et al\textsuperscript{15} stated that
in Canada, ESP roles are termed advanced practice, yet
in Australia these roles are considered to be within-scope
(although there was no supporting reference for this
statement). MacKay et al\textsuperscript{15} added another term, that of
"extended role practitioners". It is, therefore, not surprising
that there are no clear tasks for ESP physiotherapists, or that
physiotherapists who are not considered to be working in an
ESP role may also be performing ESP tasks such as referring,
and requesting investigations.\textsuperscript{13,15} This may relate to training,
and registration and legislative differences between countries
regarding tasks which are considered to be within the scope
of physiotherapy.

**Strengths of this review**

This review used a robust systematic approach to find,
classify, and consider the evidence available for this area
of physiotherapy practice. Although the literature base is
currently scant, this paper sets the scene for what is presently
being undertaken around the world in terms of extension
of scope physiotherapy practice for inflammatory arthropathies.
Future reviews of the literature will be able to build on our
processes and findings. This review highlights that further
research is required to clarify the nature and outcome of
physiotherapy practice for these diagnoses. It also highlights
the importance of using standard definitions of role extension,
so that comparisons can be made between countries.

**Limitations of this review**

This review reported on only English language literature.
Literature which reported on general “arthritis” was not
included in this review because of our specific interest in
inflammatory joint conditions. Therefore, we may have
overlooked reports of extended physiotherapy roles for
inflammatory conditions which may have been included in
general “arthritis” research papers.

**Conclusion**

Whilst ESP physiotherapists are reported to be involved in
the management of patients with inflammatory arthropathies
(particularly rheumatoid arthritis) in two countries (Canada and
The Netherlands), there is no such evidence for other countries,
or of the benefits of such roles, in terms of cost, health, and
process outcomes. The benefits of ESP physiotherapists
working with orthopedic outpatients identified by Stanhope
et al\textsuperscript{9} including reduced patient waiting times and costs, could
viably be expected in the management by ESP physiothera-
pists of patients with inflammatory arthropathies. There is
an urgent need for higher hierarchy studies that specifically
investigate the benefits to the patient and the organization
and the profession of such roles. Moreover, more research
is required on training for ESP physiotherapists working
with patients with inflammatory arthropathies, including
the credentialing and guidance required in the workplace
by supervising medical professionals.

**Disclosure**

The authors report no conflicts of interest in this work.

**References**


Effectiveness of a physiotherapy-initiated telephone triage of orthopedic waitlist patients

**Background:** There is generally a lengthy wait on outpatient orthopedic waiting lists in Australian public hospitals to consult a specialist. Patients then wait again for surgery, if required. Patients with higher need are rarely prioritized, and there is the potential for increased morbidity for those who wait. There is generally no option of alternative care whilst waiting. This paper compares historical orthopedic outpatient clinic data with the outcomes of a physiotherapy-led initiative in one large Australian tertiary hospital.

**Methods:** Two physiotherapists working within scope conducted a telephone triage (October to December 2010) using a standard instrument for all new patients on the orthopedic waiting list. They were offered primary treatment options of retaining their appointment, being discharged, referral to a new model of assessment (multidisciplinary specialist clinic), or referral to physiotherapy. The outcomes were costs of the service, waiting time, and percentage of patients taking up management options. This was compared with a historical sample of new patients on the orthopedic waiting list (January to March 2009), whose treatment consumption was tracked longitudinally.

**Results:** The telephone triage resulted in 16.4% patients being discharged directly (compared with 0.1% comparison sample). For approximately AUS$17.00 per patient, the telephone triage process released 21 booked appointments on the outpatient clinic waiting list. Moreover, approximately 26% patients were referred directly to physiotherapy, which was not a primary management option in the comparison sample. The waiting time for an appointment, for those patients who remained on the waiting list, was significantly shorter for the telephone triage sample than the comparison sample. There were significantly higher rates of failure to attend appointments, and significantly lower rates of discharge, in the comparison sample, than the telephone triage sample.

**Conclusion:** A physiotherapist-led intervention offering alternative management options whilst patients wait for an orthopedic outpatient clinic consultation appears to be cost-effective, and patient-centered.

**Keywords:** extended scope practice, orthopedics, evaluation

The number of people on waiting lists for Australian public hospital orthopedic outpatient clinics, and the length of time they wait, has steadily increased over recent years. The increase relates to factors such as the size of public hospital budgets and their allocation to outpatient services compared with the number of public patients seeking attention, the increase in prevalence of joint disease such as osteoarthritis and rheumatoid arthritis, the affordability of private health insurance, and the availability of private specialist care. The increase also relates to imbalances between the available...
number of orthopedic and rheumatology specialists, the hours they are able to work in the public system, and the complexity of orthopedic problems affecting the generally aging population. Typically, patients are referred to public hospital orthopedic waiting lists by their general medical practitioners or from other outpatient clinics. The validity of the referral is rarely assessed, and once on the waiting list, patients’ needs are rarely reviewed, nor are they offered alternative treatment as an interim measure. Thus patients may wait for several years for an appointment which may in fact not be necessary, and then they wait again if surgery is scheduled. Moreover, without interim assessment and advice whilst waiting, their physical function and community independence is likely to deteriorate.

Extending the scope of physiotherapy practice has been proposed as one way to deal with long public hospital waiting lists in Australia. Extended scope orthopedic physiotherapy has been widely practiced in the UK for the past decade, and has been shown to be an effective substitute for public sector medical assessment and care, when medical services are unavailable or scant. Physiotherapists in orthopedic clinics who operate beyond conventional scope of practice have high level orthopedic clinical skills and additional specialist training in ordering and interpreting imaging, administering corticosteroid injections where clinically indicated, and prescribing. Thus they can offer patients alternative forms of management, which may attenuate morbidity associated with waiting, and reduce the waiting list to those patients who truly require an orthopedic appointment. Current research suggests that such interventions will potentially reduce the time that patients wait for an orthopedic appointment, and for subsequent surgery. In Australia, however, advanced/extended scope orthopedic physiotherapy services have been introduced in a piecemeal fashion over the last 10 years, and the effectiveness of these mostly pilot interventions has been variably evaluated and reported in grey literature (eg, Osborne and colleagues, Moore, and Victorian Government Department of Human Services).

This paper describes the outcomes of an Australian initiative in which physiotherapists working within-scope prospectively telephone-triaged patients on the public orthopedic waiting list at one large Australian tertiary hospital, and referred them into alternative management pathways whilst they waited. While the use of telephone triage to deal with staff shortages is not novel, and physiotherapists working within scope have been shown to effectively direct triage patients in an orthopedic clinic, there is little in the literature regarding the effectiveness of physiotherapists triaging orthopedic waiting list patients by telephone. Two alternative management pathways were offered in this project: physiotherapy and a fortnightly multidisciplinary team (MDT) clinic staffed by an extended scope physiotherapist (in training) working in conjunction with an orthopedic surgeon and a consultant rheumatologist.

The aim of this initiative was to increase patients’ access to care, and to improve the timeliness of care appropriate to their current need. This ensured that the patients remaining on the waiting list for surgery were likely to truly require it, and that they would not wait as long as they would under usual circumstances.

Method

Ethics approval

Ethics approval was provided by the ACT Health Human Research Ethics Committee (Protocol ERHLR.10.259, approved December 15, 2010).

Study design

The study was quasi-experimental, comparing outcomes from a physiotherapy-led telephone triage of new patients on the orthopedic outpatient waiting list with those of a similar historical control group.

Setting

The study was carried out at The Canberra Hospital (TCH), which is the regional trauma center for the Australian Capital Territory (ACT) and provides trauma services to New South Wales (NSW) residents in the greater southern region of NSW Health. It has a catchment population of 500,000 and offers the only public referral point for orthopedic outpatients in the region. All patients attending this service must have a referral from a medical practitioner (eg, general practitioner (GP), sports physician, and other medical/surgical specialist). As with many public elective services in the ACT, patients referred to TCH Orthopedic Outpatient Department experience lengthy waiting times for appointments and any subsequent surgery.

Terminology

Working within physiotherapy scope refers to working within registerable and recognized physiotherapy competencies (see Figure 1). Physiotherapists working beyond usual scope refers to clinicians working at a high level within scope (advanced scope), or applying extended scope training in imaging, prescribing, and application of evidence in clinical decision-making. Recognition of physiotherapists’
Advanced scope of practice
A role that is within currently recognised scope of practice for that profession, but that through custom and practice has been performed by other professions. The advanced role would require additional training, competency development as well as significant clinical experience and formal peer recognition. This role describes the depth of practice.

Extended scope of practice
A role that is outside the currently recognised scope of practice and requires legislative change. Extended scope of practice requires some method of credentialing following additional training, competency development and significant clinical experience. Examples include prescribing, injecting and surgery. This role describes the breadth of practice.

Extended scope training in Australia is currently on an institutional level and not underpinned by formal accredited training programs. Extended scope practice is also limited by legislation.

Triage intervention
A telephone triage tool (Appendix 1) was developed specifically for this project by a multidisciplinary subgroup of the larger project steering committee, and tested for face, content, and construct validity prior to use with the institution’s survey committee.

The telephone triage intervention was conducted in October–November 2010 for all consecutive new patients with an appointment for the orthopedic outpatient clinic (appointments scheduled from January 1 to April 30, 2011). These patients had been referred in general anticipation of nonurgent orthopedic opinion regarding surgical options for hip/knee joint replacement or for shoulder, elbow, wrist, ankle, and foot conditions.

Two HP3-level physiotherapists (working within-scope) delivered the tool over the telephone to new patients with a booked appointment on the orthopedic waiting list (described later). The physiotherapists had previously established their reliability of administration and interpretation of patient responses to the survey instrument. Their hourly cost (including 35% oncosts) approximated AUS$1.45 each, and each telephone interview took between 10 and 15 minutes. For cost calculations, the authors of this paper allowed 10 minutes per hour of “down time” where the physiotherapists called numbers for which there was no reply. Thus, in an average hour, four interviews could be conducted (approximate cost per interview AUS$12.86).

During the telephone triage, management options were offered, comprising (1) retaining the booked orthopedic clinic appointment, (2) cancelling the appointment if not required, (3) referral directly to conservative management (generally physiotherapy), or (4) referral directly to a new service. This was a fortnightly MDT clinic, which assessed patients with complex orthopedic conditions which could not be readily assessed by telephone alone.

The MDT clinic was conducted by an extended scope physiotherapist (in training) (hourly cost including oncosts AUS$58.03), an orthopedic surgeon, and a consultant rheumatologist (each with estimated hourly rates at the agreed TCH salaried specialist rate AUS$28.76). The physiotherapist had a relevant masters degree in musculoskeletal physiotherapy. The 3-hour clinic had the capacity to assess 18 patients (six each being assessed by the three health providers who then conferred at the end of the clinic). The MDT clinic had been initially conceived as a way of obtaining medical specialist validation of the activities of the extended scope physiotherapist (in training). The average cost of a patient consultation at the MDT (combined salaries of the three health professionals) was AUS$52.59.

*The steering committee comprised two orthopedic surgeons, a consultant rheumatologist, an epidemiologist, four physiotherapists, two policy-makers, and one consumer representative.
Historical baseline (comparison) data were provided by a retrospective audit, which extracted data from records of consecutive new orthopedic patients on the TCH orthopedic outpatient clinic waiting list between January 1 and March 31, 2009. Data were extracted in February 2011. Preliminary analysis of the volume of referrals onto the orthopedic waiting list indicated that there were no significant month-by-month variations in referrals at TCH, and thus 3 months’ historical data would provide appropriate information on “usual waiting list” outcomes.

**Patient samples**
All data were accessed from the ACT Patient Information System and the Clinical Records Information System⁶.

**Data management and analysis**
Considering the historical (comparison) audit data, all patients’ records were individually tracked for primary outcomes (the first management option and its date). Primary management options were to proceed to the surgical waiting list, be rebooked to a subsequent orthopedic outpatient clinic, be referred to physiotherapy, or be discharged.

The telephone triage intervention offered primary management options of (1) keeping the booked appointment, (2) cancelling the booked appointment because patients no longer required it, (3) attending conservative management (mostly physiotherapy or podiatry) whilst retaining the booked appointment as a backup plan, or (4) attending the MDT clinic whilst retaining the booked outpatient appointment as a backup.

For those patients who attended either the MDT clinic or physiotherapy as primary management options, the next (secondary) management option was also recorded, which could be: (1) discharge with cancellation of the booked appointment, (2) refer for further investigations before a management decision was made, (3) trial of conservative treatment with a view to cancelling the booked appointment, and (4) trial of conservative treatment with a view to retaining the booked appointment.

For both samples, the number of patients who failed to attend, or who cancelled, or who rescheduled appointments, were reported. Flowcharts of management options were developed for “usual practice” (baseline sample) and the physiotherapy-led telephone triage. These are described in Figures 2 and 3.

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Data analysis
The samples were described for gender and age, and if known, median waiting times for an orthopedic clinic appointment, and for surgery (25th–75th percentiles). Non-parametric tests were conducted of differences between samples in waiting times using Mann–Whitney U tests. The numbers (and percentages) of patients consuming different primary and secondary management options were reported and compared, using chi-square tests of proportions. Significance for all tests was set at P < 0.05. Costs and cost differences between the telephone triage initiative and the comparison sample were considered.

**Results**

**Comparison sample**
There were 142 new outpatient appointments booked during the period of the comparison audit (which reflected 34% of all patients on the orthopedic outpatient waiting list at that time). Tracking these, 30 patients did not attend their appointment (20 failed to attend without explanation, and 10 cancelled because they had surgery elsewhere). The remaining 112 patients comprised 50.7% males and 49.3% females, with an average age of 51.2 years (standard deviation 19.6) (no gender-age differences). A total of 92% were referred by GPs.

The conversion rate to surgery at the time of the audit (February 2011) was 20.4%, with a median time to receive surgery at TCH after the first orthopedic clinic appointment of 7.8 months (25th–75th percentiles 5.3–16.6 months). The median waiting time for patients to receive an orthopedic appointment was 25.1 months (25th–75th percentiles 24.3–31.3 months). This does not take into account (the unknown number of) patients who make subsequent decisions to receive surgery elsewhere, or who remove themselves from the waiting list. See Figure 2 for details on the management options and the patient numbers.

**Telephone triage**
All 120 new patients with a scheduled orthopedic outpatient clinic appointment between January and April 2011 were telephoned, and the triage tool was administered to 116. The remaining four patients could not be contacted despite three telephone calls at different times of the day. The contactable telephone triage sample reflected 32.6% of all patients on the waiting list at that time. There were similar gender proportions (49% males, 51% females), with a median age 65.1 years (25th–75th percentiles 51–74 years). There were no gender-age differences. The primary management
outcomes for this sample were described earlier (this being the decision made over the telephone, not at subsequent clinic appointments).

The median waiting time from entering the waitlist to being triaged was 6.6 months (25th–75th percentiles 5.8–7.5 months), and the median time between being triaged and booked for a surgical opinion was 3.5 months (25th–75th percentiles 2.7–4.3 months). See Figure 3 for details on the management options and patient numbers.

Comparison between samples

There was no significant difference between samples in gender or age. The telephone triage sample had a significantly shorter waiting time for an orthopedic clinic appointment than the control sample ($P < 0.05$). A comparison of the primary management outcomes of the samples is provided in Table 1.

The most obvious effect of the telephone triage was the high percentage of patients who were discharged without an immediate or ongoing need for further orthopedic outpatient appointments. This outcome was obtained at the initial telephone engagement ($N = 19$) and again following attendance at the MDT clinic ($N = 2$). The physiotherapy discharged patients are not considered in this analysis as it is not known how many consultations they had with the physiotherapist to arrive at the point of discharge. Using the costs of the physiotherapy-led telephone triage, the patients discharged over the telephone cost an estimated total of AUS$244. The patients discharged after one MDT consultation ($N = 2$) cost a total of AUS$105.18. The discharge decision was discussed with, and agreed by, patients. Thus, for a total cost of approximately AUS$350, a total of 21 booked appointments were released on the outpatient clinic waiting list due to this initiative (costing approximately AUS$17.00 per patient).

Had these patients proceeded to an outpatient clinic appointment with a specialist orthopedic surgeon or a consultant rheumatologist, the appointment would have cost a total of AUS$675.99 (based on an estimated 15 minutes per outpatient appointment). Thus, not only were 21 potential outpatient clinic appointments released for this sample of 116 patients (18%) (who under “usual practices” would have proceeded to a clinic appointment), but there were cost savings of approximately 48% in the discharge process.
There was also a significantly higher percentage of referrals to physiotherapy in the telephone triage sample (referred directly or via the MDT clinic), compared with the historical sample. The outcomes of these management options would need to be reviewed in a future audit to determine whether future surgical intervention was provided to these patients. Although the percentage of patients proceeding to surgery was similar in the two samples, the median waiting time for those patients who remained on the orthopedic outpatient waiting list was significantly shorter for the telephone triage sample than the baseline sample. There was a considerably higher rate of failure to attend appointments in the baseline sample than the telephone triage sample, which may have reflected patients who did not believe they needed the appointment, or who had gone elsewhere for treatment and failed to notify the hospital.

Considering the secondary outcomes of the telephone triage sample (outcomes of those patients who were referred to MDT or physiotherapy), of those patients who were referred to the MDT clinic (N = 48), 26 (54.2%) were advised to retain their appointment on the outpatient waiting list with a view to proceeding to surgery; seven were referred for further investigations and then to return to the MDT clinic for a final decision on management (14.6%), four were referred to physiotherapy with a view to cancelling their outpatient appointment (8.3%), two were discharged (4.2%), seven failed to attend the MDT.

<table>
<thead>
<tr>
<th>Primary outcome</th>
<th>Baseline audit N = 142</th>
<th>Telephone triage initiative N = 116</th>
</tr>
</thead>
<tbody>
<tr>
<td>No available information</td>
<td>7 (0.5%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Discharged</td>
<td>1 (0.1%)</td>
<td>19 (16.4%)</td>
</tr>
<tr>
<td>Received surgery at TCH</td>
<td>29 (20.4%)</td>
<td>Not an option</td>
</tr>
<tr>
<td>Scheduled for surgery at TCH</td>
<td>24 (16.9%)</td>
<td>Not an option</td>
</tr>
<tr>
<td>Retained booked OP appointment with a view to</td>
<td>51 (35.9%)</td>
<td>19 (16.4%)</td>
</tr>
<tr>
<td>proceeding to surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DNA</td>
<td>30 (21.1%)</td>
<td>Not an option</td>
</tr>
<tr>
<td>Referred to MDT</td>
<td>Not an option</td>
<td>48 (41.4%)</td>
</tr>
<tr>
<td>Referred to physiotherapy</td>
<td>Not a primary option</td>
<td>48 (41.4%)</td>
</tr>
<tr>
<td>(could occur as a secondary option, see Figure 1A)</td>
<td></td>
<td>30 (25.9%)</td>
</tr>
</tbody>
</table>

Abbreviations: OP, outpatient; MDT, multidisciplinary team; TCH, The Canberra Hospital.
appointment (14.6%), and 10 (20.8%) cancelled their appointment (and thus opted to remain on the outpatient appointment waiting list).

Of those patients who were directed during the telephone triage to physiotherapy (N = 30), seven (23.3%) were advised to remain on the waiting list on track for surgery (with or without physiotherapy), one was discharged (3.3%), six continued with physiotherapy treatment with a view to cancelling their booked outpatient clinic appointment (20.0%), and eight failed to attend (26.7%). The general waiting time for commencement of physiotherapy was 2–3 weeks after telephone triage. In every instance, a letter was sent to the referring doctor outlining the management plans, and recommending that the doctor monitor patient progress.

The secondary outcomes from the telephone triage are reported in column 1 in Table 2.

Thus, considering the combined primary and secondary outcomes of the contactable telephone triage sample, 52 patients (44.8%) were on a scheduled track for surgery by retaining their orthopaedic outpatient appointments, 32 (27.6%) were discharged (or likely to be discharged) as a result of the telephone triage directly, or after attendance at MDT or physiotherapy. There were 15 failures to attend either MDT or physiotherapy (19.2%). As DNA was not a primary management option for the telephone triage, this number is deflated by division by the total number in the telephone triage, when considering primary and secondary outcomes. The combined primary and secondary outcomes of the new initiative are reported in the second column of Table 2.

Considering both samples and the available primary and secondary outcome data, the main differences between the samples relating to the new initiative were:

- A nonsignificant increase in the number of people who might proceed to surgery (P > 0.05),
- A significant increase (P < 0.05) in the number of people who could be discharged (and not require an outpatient appointment at all). There were cost savings in achieving discharge before consulting a specialist at the orthopaedic outpatient clinic.
- A nonsignificant increase (P > 0.05) in the number of people who were referred to physiotherapy as a management option, and
- A significant decrease (P < 0.05) in the patients who did not attend their appointment.

The key outcomes for comparison between the samples are provided in Figure 4.

**Discussion**

Using samples that were comparable in terms of demographics and size, this study reports on a rare opportunity in Australia to consider changes which could be made to a lengthy orthopaedic outpatient waiting list by a physiotherapy-led telephone triage initiative. This process used a standard set of questions, and referred patients to alternative interim management options whilst they waited for an orthopaedic appointment. Thus, access to appropriate care and the timing of care were improved by one low-cost intervention. The authors’ findings mirrored those from other research.6–8,13

**Considering progression to surgery**

Compared with baseline data, the physiotherapy-led initiative appeared to validate the need for referral for surgery for at least 40% of patients on the waiting list. It also identified a significant number of patients who were unlikely to require surgery and could be discharged from the waiting list, thus releasing orthopaedic surgeons’ time and providing opportunities for patients who really did need surgery to be assessed sooner. This initiative also decreased the number of appointments which patients failed to attend, possibly because the contact with the hospital had reinforced their attendance, and/or their interest in retaining their appointment. This also suggested that budget forecasting for orthopaedic surgeons’ time to consult in TCH outpatient clinic, and to subsequently perform their surgery, was potentially inflated by approximately 40%.

It is not possible to compare the samples in terms of waiting times for surgery, because for the telephone triage sample, surgery was unlikely to have occurred at the time of data collation. Follow-up is required to determine whether all
patients who retained their booked outpatient appointment as a result of one of the management options from the telephone triage did in fact proceed to surgery, and to test whether those patients who cancelled their appointment proceeded to surgery at a later date.

**Considering the MDT clinic**

The MDT was initially conceived as a way of validating the skills of the extended scope physiotherapist in-training, by having their assessments and decisions overviewed by two medical specialists. It is possible that the extended-scope physiotherapist will act alone in the future by leading more clinics, and only consulting with the medical specialists on difficult/complex patients when a clear management pathway is not obvious. Based on the current rate of consulting six patients per 3-hour MDT clinic, this could decrease the costs per patient attending this clinic to AU$29 (based on the HP4-level physiotherapist wage including oncosts) (compared with the current per-patient cost of AU$52.59). Notwithstanding the potential for a cheaper service, the benefits of the MDT are the multidisciplinary opportunities, which have the potential to improve outcomes for patients with complex problems. This clinic has highlighted the benefits of multidisciplinary teamwork, and has not only provided patients with access to broad specialist decisions but has also provided a learning platform for all health professionals involved. The MDT clinic may well provide training opportunities in the future for other extended scope physiotherapists, and also for medical trainees (students, interns, and registrars), as it offers a rare opportunity to showcase how different professionals consider complex orthopedic cases. An MDT therefore may well become a primary management option for orthopedic outpatients in the future. The findings from this study are supported by a recent Canadian report, which suggests that innovative teams working together and separately are required to address the challenges of waiting lists and chronicity of conditions.17

**Considering referral to physiotherapy**

Physiotherapy was only historically available as a secondary management option (after an orthopedic clinic appointment). Not every patient received a physiotherapy referral, and nothing could be tracked about the appropriateness of the referral process. From the new initiative, physiotherapy was offered as a primary management option, with or without a view to proceeding to a surgical opinion. The perceived benefits of referral to physiotherapy could be inferred by the number of patients who were advised to trial a course of physiotherapy with a view to cancelling their booked outpatient clinic appointment (12.8%), either from the MDT clinic or the physiotherapy clinic. In the baseline sample, 22.5% patients were referred to physiotherapy as a secondary management option after having waited a long time for an outpatient appointment. One could question whether these patients in fact could have been directed to physiotherapy as primary management strategy, without waiting as long as they did, or even consuming an orthopedic outpatient
appointment which could have been used by someone in greater need. 87

Conclusion
Physiotherapists telephone-triaging patients with an orthopedic outpatient appointment can assist in the reorganization and prioritization of a lengthy orthopedic outpatient waiting list. This offers a low cost, high return option to an institution with concerns about managing its orthopedic waiting list. The high returns are in terms of cost savings (particularly orthopedic surgeons’ time being spent on patients who truly require a surgical opinion), and societal benefits such as improvements in patients’ access to timely and appropriate care, which will potentially decrease morbidity.

Disclosure
The authors report no conflicts of interest in this work.

References