HA Convention 2012
Corporate Scholarship Program Sharing Sessions
Musculoskeletal Service: Spectrum of Care

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8 May 2012
Overseas Corporate Scholarship Program

Objectives

• Build up New Capabilities & Competencies
• Develop enhanced roles of Physiotherapists in meeting Service Needs
• Supports development of Career Progression Model in Allied Health: Physiotherapist in Musculoskeletal Specialty
Physiotherapist Musculoskeletal Services

1. Extended Scope of Practice (ESP) in UK:
   • Spinal Triage Clinic
   • Shoulder/Elbow/ Hip/Knee Triage & ESP Clinic
   • Rheumatology ESP Clinic
   • Hand ESP Clinic
   • Pediatrics ESP Clinic
   • Pain Rehab Clinic

2. Advanced Practice Physiotherapist (APP) in Canada:
   • Hip/knee Arthritis & Joint Replacement clinic
   • Shoulder assessment clinic
   • Spine Clinic, Fracture Clinic

3. Musculoskeletal Work Rehabilitation Service in Canada
Development of ESP in UK

- Started in 1980s
- Cope with the vast caseload
- Decrease the waiting time for orthopedic outpatient appointment.
- Act as a gatekeeper for orthopedic patients not obviously require surgical intervention
- Saving orthopedic surgeons’ time for the patients really need surgical intervention

Princess Elizabeth Orthopedic Centre, Exeter
Nuffield Orthopedic Centre, Oxford
Spine Triage Clinic: PT Role

1. Screen Red flags
2. Clinical Assessment
3. Psychosocial Screening
4. Screen for surgical indication

Explain Rx Options in details
1. Self management
2. Physiotherapy in community
3. Structured Rehabilitation program in hospital
4. Pain control (pain rehab – anesthetist, radiologist)
5. Surgery (<5% would required Surgery)
# Pain Rehab: Triage for structured program

<table>
<thead>
<tr>
<th></th>
<th>Back Fitness Class</th>
<th>Shorter Self Mx</th>
<th>Functional Restoration</th>
<th>Active Rehab</th>
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<tbody>
<tr>
<td><strong>Duration</strong></td>
<td>1 hour/wk for 6 weeks (6 hour)</td>
<td>2 hour/wk for 6 weeks (12 hour)</td>
<td>3 days for 3 weeks (70 hour)</td>
<td>35 hour</td>
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<td><strong>Disability Level (ODI)</strong></td>
<td>&lt;30%</td>
<td>30-40% some Fear Avoidance</td>
<td>40-60% Fear Avoidant</td>
<td>&gt;50-75% Fear Avoidant</td>
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<tr>
<td><strong>Work/home</strong></td>
<td>Near full</td>
<td>Coping with some fx difficulty</td>
<td>Periods off work</td>
<td>Off work, low productivity at home</td>
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Functional Restoration Programme

• 3 days/3 weeks
• Exercises circuits/hydrotherapy circuits/education sessions/stretches and relaxation
• Education topics covered:
  – Understanding pain cycle & healing
  – Over activity & under activity
  – Goal setting
  – Pacing and activity diaries
  – Relaxation
  – Helpful thinking
  – Problem solving
  – Relatives and friends
  – Sleep & tiredness
  – Ergonomics

Spinal Stabilization Trial (cost utility analysis)
Shoulder/Elbow/Hip/Knee Triage & Post-Operation Clinic

**Triage Clinic**
- Differential diagnosis (X-ray, US, +/- MRI)
- Management: Refer PT/ injection
- Education / Explain Rx options / Exercises

**Post Operation Shoulder/ Knee Clinic**
- SAD (minimal invasive), arthroscopy, rotator cuff repair, total joint replacement
- Education: advice on work (post-op) and ADL, post-op exercises
- Review X-R

- Clinics were run parallel with orthopedics surgeons
- Simple cases were seen by PT, while complicated/revision cases were seen by orthopedics surgeons.
Rheumatology ESP clinic

- 1 ESP PT & 3 ESP nurse

Diseases with protocol based management
- RA, AS, Psoriatic arthritis
- Drug prescriptions
- Order blood test if necessary
- FU rheumatologist for complicated cases
Paediatrics  DDH Screening Clinic

• Run by 1 ESP PT, 1 sonographer & 1 nurse
• ~20 babies/morning session
• ESP PT review ultrasound, clinical examination (symmetry/ plagiocephaly/ torticollis/ spine)
• Hip examination/Knee/Feet
• Education, Management (eg double nappy, stretching, prone lying, preference side…)
• Plan: D/C and letter to GP, Observation & review with US (<16 week), XR (>16 week), review in orthopedic clinic (Splint)
Advanced Practice Physiotherapy (APP) Development in Canada

◆ The Ministry of Health and Long-Term Care announced Ontario’s Wait Time Strategy in Nov 2004, Hip & Knee replacement surgery was one of the five priority services.

◆ In May 2006, the Ministry also launched the Health Human Resources Strategy to establish new and expanded roles to meet the needs.

→ offsetting the shortage of Surgeons by maximizing the use of alternate care providers in new team-based models of care
The annual number of procedures is growing:

From 1994 to 2004

- Up 50% for THA
- Up 100% for TKA

In 2001-2004, only 50% of patients received their scheduled surgery within 6 months.

Shortage of orthopedic surgeons in Ontario

Workload of surgeon: two-third of time for consultation only one-third of time for operation

FRAMEWORK FOR ROLE DEVELOPMENT

1. Determine need for new model of care
   - High Demand
   - System Burden

2. Define patient population and current model
   - Hip and Knee Replacement
   - Traditional surgeon roles

3. Identify stakeholders and recruit team
   - Administration, surgeons, physiotherapists, patients

4. ID priority problems and goals to improve model of care
   - Problems: system bottlenecks, surgeon burden
   - Goals: maximize human resources, improve efficiency

5. Define new model of care; obtain stakeholder consensus
   - Developed APP roles in:
     1. Post-operative follow up
     2. Referral Management

6. Plan implementation strategies
   - Identified facilitators and barriers:
     - stakeholder awareness, existing models, APP education and competency testing,
     - administrative support and resources, medical directives, supporting care pathways and procedures.

7. Initiate APP role implementation plan
   - Provide education, resources and support.
   - Establish APP roles, policies and protocols.
   - Begin role development and implementation.
   - PLAN-DO-STUDY-ACT

8. Evaluate APP role and new model of care.
   - Outcome Measures: Patient satisfaction, health care provider satisfaction, no. of patients seen by APP, changes in patient flow, patient health and patient safety indicators

9. Long term monitoring
   - Evolve and expand APP roles to match needs

Advanced Practice Physiotherapist (APP)
Long-term integration within the physiotherapy profession and overall healthcare system

Adapted from Bryant-Lukosius and Dicenso (2004).
# Advanced Practice Physiotherapist (APP) in Hip & Knee Arthroplasty

## Referral to Holland Centre
- **Activities**
  - **APP Paper Triage**
    - Central intake and referral tracking
    - Clerical: criteria-based intake screen
    - APP: criteria-based triage for urgency
  - **APP / RN Assessment**
    - APP: History, Physical and Functional Ax.
    - Nurse: Health Ax.
    - Criteria-based Triage Clerical follow up
    - Patient choice or next available surgeon
    - Independent clinic: 10 patients per clinic
  - **Optimization**
    - Resources and referrals for pts on surgical and non-surgical paths
    - Community Partnerships with Arthritis Society, WCH, YMCA
    - Options for self re-entry for patients not ready to consider surgery
    - Criteria-based early consults: Medicine, Anesthesia
  - **Surgical Consult and Surgery**
    - Focused consult
    - Confirm assessment findings
    - Criteria-based prioritization
    - Booking flexibility for same-day Assessment Clinic and Surgical Consult
  - **APP Post Operative Follow up**
    - Standardized patient review with diagnostic tests
    - Independent clinic: 10 patients per clinic (21 patients per day)
    - Concurrent surgeon clinic
    - Telephone Support Line

## Target Timeframes
- **2 business days**
  - Triage criteria
  - Std. Referral Form
  - Std. form declining referral or requesting additional information
  - Clerical appt. booking script
- **3 weeks from referral**
  - Triage criteria
  - Letter of introduction for patients
  - Std. documentation pkg and outcome measurement
  - Medical Directives
  - Std. letter to referral source/Family Physician with management plan
  - Std. Patient Education pkg
- **Prior to surgical consult**
  - Criteria for Arthritis Programs
- **90 days from referral to consult**
  - Std. Surgical Requirements Form
  - Std. Preadmission package

## Supporting Documentation
- **APP conducts all reviews for primary THR/TKR**
  - Appt booking flowchart
  - Appt Card with selection for APP or Surgeon
  - Letter of introduction for patients
  - Std. assessment form and diagnostic tests
  - Decision algorithms
  - Pt education resources
  - Medical Directives

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SR - 2005, R20090427
Sunnybrook’s Holland Orthopaedic and Arthritic Centre
Assessment Centre
Assessment Centre

- Physical Examination - APP and PT Assistant

Triage

- To referred Surgeon or next available

- To Conservative Management

- Health assessment - Specialist Nurse
  - POP (patient orientation program)
Standardized documentation and educational materials
Day admission ward and rooms for Anesthesia Procedures

- 4 operation theatres
- 4 - 5 cases /day per theatre
- Perform 3 - 4 operations simultaneously
Ward Setting

Average LOS for THA / TKA:
4-6 days in 2010
Postoperative APP Review Clinic

- Parallel clinic
- Nearly 2000 patients per year
- Physical examination
- Diagnostic tests
- Education
- Telephone support
- Fast access to surgeons when needed

Dr. Hugh U Cameron MB, ChB, FRCSC
Musculoskeletal Work Rehab Service in Canada

Three Streams of Service:
1. Return to Work Assessment
2. Return to Work training
3. Vocational Training
PROFESSIONAL TEAM

- Physical therapist
- Occupational therapist
- Exercise therapist
- Psychologist
- Medical Practitioner
- Vocational specialist
- Rehab Coordinator
- Case Manager

RTW Team
Return to Work (RTW) Assessment

Medical Assessment
Timely access to medical and diagnostic service to minimize disability duration and maximize outcome

Functional Assessment
Customized functional capacity evaluations to identify individual’s current physical and functional status

Work Site Visit
Work site visits to identify the modified work opportunities

Return to Work Skill Profile
Identification of the transferrable skill, working experience and return to work barrier for exploration of employment opportunities
Return to Work Training

Duration of Program: 4 - 6 weeks
Frequency: max. 5 days a week
Duration of each session: 4 hours
Training Program

Lifting Training

Push and Pull Training
Training Program

Muscle Strengthening

Hydrotherapy

Stretching and Mat Exercise

Cardio-training
Work Tasks Training
Educational Workshops

- Back Education
- Pain Management
- Hurt vs. Harm
- Sleep
- Discussion of Advanced Relaxation Techniques (DART)
- Communication Skill
- Lifestyle Counseling
Based on the information of RTW Skill Profile, assist worker to identify 3 suitable job goals and outline a RTW plan.

Assist the worker to produce professional resume.

Provide workers job searching and interviewing skill.

Support the worker with job search:
- Access to the job bank of current employment
- Debrief the workers on interviewing skill.
Learning Points: Development in Meeting Service Needs

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<td>Inadequate referral information from family physicians</td>
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<td>Lack of standardized communication with referring physicians</td>
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<td>High percentage of inappropriately referred patients at point of consultation with surgeon (30–40%)</td>
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<tr>
<td>Unacceptable wait times for surgical consultation</td>
<td></td>
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<tr>
<td>Individual surgeon practices with high variation in wait times</td>
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<tr>
<td>Unacceptable wait times for surgery from consultation</td>
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<tr>
<td>Unacceptable percentage (10%) of delays or cancellations of patients at the pre-admission clinic just prior to surgery due to medical issues</td>
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<td>Insufficient capacity for post-operative patient follow-up by orthopedic surgeons</td>
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System problems identified in 2005 (Ontario, Canada)
Role Delineation & Structured pathway of care

Low Back Pain Pathway, Oxfordshire NHS Back Pain collaborative
Training Development

1. Mentorship (80s-90s in UK)
2. Residency (Canada since 2005)
   3-month full time APP practice program in meeting competency in total joint arthroplasty
3. Structured modules at University Masters Level in ESP (UK)
APP TRAINING: 3-MONTH PRACTICE DEVELOPMENT PROGRAM

- Based on Orthopaedic Surgery Residency Program, University of Toronto In-Training Evaluation
- Daily shadowing of surgeons in clinic and in the operating room
- Formal education sessions with radiologists, surgeons, pain service and other team members
- Scheduled observation and case reviews with surgeon assessors
- Extensive research-based learning resources
- Clearly defined competency criteria
- Radiology learning objectives (web-casting)
ESP Training at University Masters Modular Level in UK

http://www.esp-physio.co.uk
M level module
Extending the Scope of Practice in Upper Quadrant Musculoskeletal Disorders (Spinal and Shoulder)
30th November – 2nd December 09
Room 1004 – First floor
SERVICE DEVELOPMENT IN HONG KONG
Musculoskeletal Physiotherapy SAFE Programme
Screening, Assessment, Fast-track Education & Management Programme in Hospital Authority

Timely and appropriate level of care
Early Access to Physiotherapy assessment, empowerment & treatment

Enhance organizational triage
Safety and efficacy
Offloading O&T for complicated cases
Spectrum of Musculoskeletal Service

- AED in managing hospital admission
- Triage
- Early Intervention & Patient empowerment
- Pre-op / Post-op Mx
- Primary Care
- Chronic illness with confounding musculoskeletal disorders
- Preventive care
Competency Enhancement:
Advanced Specialty Training by IAAHS
Mentorship & Collaboration
Workforce Development

Agreed Protocol & Pathways
Corporate Support
Collaboration with clinical partners
Volume and Demands
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