PT & MD
Interdisciplinary Team
Care to Reduce Health Care Costs with Cooperative Strategies

William O Roberts MD, MS, FACSM
Professor - Department of Family Medicine & Community Health
University of Minnesota
&
Kelly Roberts Lane DPT
Fix It Physical Therapy
Mahtomedi, MN

Objectives
• Describe interdisciplinary care
• Examine the scope of cooperative strategies for
  –Improved patient outcomes
  –Decreased cost
• Discuss strategies in developing trusting interdisciplinary team relationships

Interdisciplinary Health Care
• What is it?
  –Practitioners from different professions share
    • Common patient population
    • Common patient care goals
    • Responsibility for complementary tasks
Interdisciplinary Health Care

• Team is actively interdependent
  – Established means of ongoing communication
    • Among team members
    • With patients & families

• Goal
  – Ensure patients’ health care needs are integrated & addressed

Interdisciplinary Health Care

• Hospital setting
  – More advanced than Community Clinics
• Can this be accomplished in our current settings?
• How can PTs & MDs work together?
  – Primary care
  – Orthopedic surgery
Health Care Team

• Transition
  – Fee for service & volume reimbursement
  – Outcomes based reimbursement
• When paid based on outcomes
  – Playing field will level out
  – Turf battles will decrease

Pipe Dream Training Clinic

• Interdisciplinary clinic under one roof
  – Family Medicine Residents
  – Psychology / MFT Residents
  – Master Social Work students
  – Pharm D residents
  – Senior DPT students
  – PA students
  – Nutrition students
  – Clinical exercise physiology students
  – Dental students

Scope of MSK Injury

• 10,000 visits / day in US (Fleming 2002)
  – 50-80% lower extremity
• High total cost
• Fertile ground for
  – Evaluation & treatment
  – Return to function
  – Injury prevention
How did we get here?

• Open access legislation
  – Direct access to PT care for 90 days
  – Opposed by health care providers you work with for optimal outcomes
    • MDs
    • Chiropractors
    • ATCs

Direct Access Based on Data

• Con arguments
  – *Anecdotes* of perceived potential problems
  – Anecdotes of adverse outcomes
    • Numerator medicine
  – Anecdotes ≠ data
• Pro arguments
  – Data based
  – No problems with patient safety
  – Cost effective care
  – Improved outcomes
Policy & Legislation

• Often driven by emotion
• Frequently not driven by data
  – Research critical
  – Must continue to collect & use data
• DPT-PhD; DPT-MPH; DPT-MCR
  – Will be essential

Publications Supporting Direct Access

• Moore et al. “Risk determination for patients with direct access….” J Ortho Sports Phys Therapy 2005
  – 40 month data collection
  – No reported adverse events resulting from the PT’s diagnoses or management
  – Regardless of how patients accessed PT services

Publications Supporting Direct Access (cont)

• Overman et al. Physical Therapy, 1988 titled “Physical therapy care for low back pain: Monitored program of first-contact non-physician care”
  – No adverse outcomes that could be attributed to physical therapist first-contact care
Federation of State Boards of Physical Therapy
January 27, 2006

• “The Federation has found no increase in number or severity of either malpractice or disciplinary cases in jurisdictions that have direct access to physical therapy when compared with those jurisdictions that do not have any form of direct access.”

Unsupervised Practice

• Physical therapy as a profession
  – Determined optimal educational program & clinical training based on their needs as practitioners
  – Intention that therapists will be able to practice independently upon:
    • Graduation
    &
    • Passage of national licensure examination

Accreditation Standards for PT Programs

• Require instruction for independent decision making
• Federation of State Licensing Boards
  – Develops & administers national exams
  – Test PT students on ability & knowledge to practice independently at graduation
Studies - PT Graduates

- Demonstrated in studies
  - Higher level of knowledge in managing MSK conditions than
    - Medical students
    - Physician residents
    - Many practicing MDs
      - Other than seasoned orthopedists & primary care sports MDs

PT Training

- Competent to develop a plan of care for patients
- Competent in differential diagnosis

PT Standard of Practice

- Requires PT evaluation
  - On every patient
  - Determine best treatment based on
    - Evaluation
    - Knowledge of treatment evidence
- Refer patient to MD
  - Findings out of scope of practice
PT Professional Responsibility

• To provide the most beneficial & efficacious treatment based on their independent evaluation
• PTs are experts in physical therapy & MSK conditions

PTs
Part of Health Care Team

• Promote health
• Look after patient well being
• Trained to treat MSK conditions
• Refer patients back to their physicians
  – Do not respond to therapy
  – Do not fit usual PT patterns of care
  – Fall outside PT scope of practice

APTA News

• October issue of Military Medicine
  – PTs as PCP for members of military with MSK complaints
Effectiveness of PTs Serving as Primary Care MSK Providers….

- McGill, Troy
- Military Medicine 2013; 178(10) 1115-20

Objectives

- Compare efficiency & effectiveness of a PT functioning as a MSK PCP compared to FP physicians
- Hypothesis:
  - (1) Use of medication/imaging studies will be significantly less with a PT as PCP,….
  - (2) Return-to-duty (RTD) rate will show significant increases when patients… seen by PT,….

Methods

- 1 PT vs 2 physicians
- Patients with MSK conditions
  - June 2009 to January 2010
- Patients randomly selected
  - 54 PT group
  - 95 FP group
- Age, sex, medication, imaging use, & RTD rate collected
Results

- Study population
  - 126 (84%) males
  - 23 (16%) females
  - age range: 19-54, mean 29
- RTD rate was 50% greater for PT.
- Rate of medication & imaging use
  - PT was 24% & 11%
  - FP was 90% & 82% (p < 0.01).

Conclusion

- Using PT as MSK PCP shown to be effective & efficient practice model to assess & treat patients with MSK complaints

Promoting Integrated Care

- Utilize direct access
- Educational changes
How to Utilize Direct Access

• PT owned physical therapy clinics
• Accept self pay from clients
• To be a front line care provider
  – PTs must be confident in skills
• PTs must perfect their craft
  – Effective
  – Efficient

Educational Changes

• Old Schooling
  – Hierarchal approach
    MD
    PT

• New Schooling
  – Team approach
    MD
    PT

• Future?
  MD
  PT
  ATC
  Cert Pers Trainer

Educational Changes

• PTs must be taught
  – Skills are unique
  – Important for healthcare team
• PTs must be confident
  – With skill level
  – With independent practice status
• MDs must be schooled
  – What PTs do
  – How to work effectively with PTs
Confident – Efficient - Effective PTs

• Correct all associated functional deficits
• PT office visits
  – 1x/week to 1x/month
• Goal - teach patients when they need PT
• An individual should have a primary PT & MD
  – PT should focus on a life long goals of health & activity
  – Future?
    • No discharge for outpatient PT

Confident – Efficient - Effective PTs

• Emphasize manual therapy & exercise
  – Take initiative to make rehab effective & efficient
  – High expectations for patient outcomes
• Patients have a choice
  – They pick most effective, efficient, lowest cost route
  – We need to be really good at what we do

Teach the Team Approach

• Accomplishing the same end result
  – Better outcomes
  – Less cost
  – Happy, healthy, active people
Teaching FM Residents

• Overview of office rehab & PT utilization
  – Should be in medical school curriculum
• Future PT teaching this part of residency

General Rehab Guidelines
Adapted from Kibler MSSE 1998

• Make a complete & accurate diagnosis
• Early pain reduction
• Early achievement 50+% ROM
• Consider manual therapy for joint motion
• Core & key element strength stabilization
• Integrate kinetic chain into rehabilitation
• Injured part exercises

General Rehab Principles
Adapted from Kibler MSSE 1998

• Emphasize entire rehab sequence
• Correct all associated functional deficits
• Most PT can be done at home
  – Once exercises appropriately taught
• PT office visits
  – Assess goal achievement
  – Instruct exercises for next phase
  – Manual therapy
Manual Therapy Works

• Manual Therapy
  – “Highly effective in neck pain & back pain”
  – Systematic review of manual therapy
    • NNT = 5 (IFOMT)
  – Manual therapy for neck or back pain
    • 100 x’s > osteoporosis drugs for hip fracture prevention

Karim Khan. BJSM 2008; 42: 627

Allow Time for Healing

PT can monitor change over time

• Acute
  – Avoid additional stress & strain
• Maintenance
  – Activation within safe range
  – Closed kinetic chain activities
  – Functionally specific activities
    • Return progressions
    – Kinesthetic activities
  • “Let it be”

What can an MD contribute to MSKI care?

• Medications
  – Transdermal nitro - tendinopathy
• Injections
• Diagnostic imaging
  – Radiograph
  – CT
  – MRI
  – Ultrasound visualization
Pain Control

• Pain medication
  – Comfort
  – Relieve spasm
  – Allow rehab to progress
  – Not for return to play
• Medication types
  – Narcotic
  – Non narcotic (NSAIDs)
• Lidocaine Patch
  – Cut to fit area

Protective Equipment

MD or PT role

• Protect injury, allow function
• Meet rule requirements
  – Bracing
  – Padding

Maintain Athletic Fitness

PT can progress over time

• Alternate activities
  – Cardiovascular fitness
  – Sports specific
    • Anaerobic pathways
    • Aerobic systems
• Strength training
  – Away from injury site
  – Functional strength
  – Agonists & antagonists
• Sports specific
MD Rehab Plan Summary

- Make the diagnosis
- Control unwanted inflammatory processes
- Control pain
- Allow time to heal
- Use Physical Therapy
  - Restore joint ROM & soft tissue extensibility
  - Improve muscle strength & endurance
  - Retrain biomechanical skill patterns
- Maintain CV endurance
- Safely integrate into activity

What do I (an MD) want from a PT?

- PT evaluation & treatment plan
- Evidence based treatments
- Manual therapy for joint motion
- Core & key element strength stabilization
- Injured part exercises
- Watch for complications of MSKI

Complications of Soft Tissue Injury

- Myositis Ossificans Traumatica
- Compartment syndromes
- Regional Pain Syndromes
- Refer back to MD if change not appropriate over time
What do I (an MD) want from a PT?

- PT office visits
  - Manual therapy
  - Assess goal achievement
  - Instruct exercises for next phase
- Return to activity recommendation

Return to Competition
Rehabilitation Protocol

- Pain free with range of motion
- Full range of motion
- Strength (strength, power, & endurance) = uninjured counter-part
  - Isokinetic strength testing
  - Field testing
- Full functional capacity
  - General body strength conditioning
  - Cardiovascular fitness
  - No joint instability

Box Test – Lower Ext Control

- “Pause for the cause” – ACL injury reduction
Critical PT Role
Return to Activity Supervision

- Neurophysiologic learning process
  - Re-learn neuromuscular patterns
    - Engrams (in brain sub-cortex)
- Normal strength
  - Avoid substitution patterns
    - Substitution patterns = abnormal engrams
- Return progressions
  - Start with basic skill activities
  - Progress to higher skill activities
    - Function & ability restored

"Practice makes perfect"

"Practice makes permanent"
Reducing Costs in Medicine

- Choosing Wisely Campaign
  - Imaging tests for lower-back pain
    - When you need them & when you don't

- Respecting the role of Hx & PE
- Avoiding unnecessary imaging & treatments
- Instituting treatments that work
- Outcomes measures

MRI is the Devil's Tool

- OA
  - All of us have some
  - MRI shows more than you want to know
  - Can lead down wrong path
- PT is key
  - Strength program
  - Relieves pain
  - Improves function
  - Cost less

Low Back Pain

- 2009 statistics
- Major economic impact in USA
- Estimated total costs > $100 billion/yr
Low Back Pain

- OMT study
- Acute LBP <6 months’ duration
- OMT + standard care vs standard care
- OMT group costs lower
  - 38% more office visits
  - 18.5% fewer prescriptions (P<.001).
  - 74.2% fewer radiographs (P<.0001).
  - 76.9% fewer referrals
  - 90% fewer MRIs

Surgery

- “There is nothing a little surgery can’t make worse”
- Surgery to Avoid #5: Lower-Back Surgery
  - HEALTH Magazine
- Suggested alternate – rehab & exercise

LBP Surgery


- For non-radiculur back pain with common degenerative changes, fusion is no more effective than intensive rehabilitation
- For radiculopathy with herniated lumbar disc & symptomatic spinal stenosis is associated with short-term benefits compared to nonsurgical therapy
  - Though benefits diminish with long-term follow-up in some trials
LBP Surgery

- Operative and Nonoperative Treatment Approaches for Lumbar Degenerative Disc Disease Have Similar Long-Term Clinical Outcomes Among Patients with Positive Discography.
  - Smith et al. World Neurosurg. 2013 Sep 15.
- To compare outcomes in lumbar degenerative disc disease electing for fusion vs nonoperative treatment
- No significant difference in outcome measures

LBP EBM Reviews

- …no clinically relevant difference between SMT & other interventions for reducing pain & improving function in chronic low-back pain
- …SMT for chronic low back pain has a small, short-term greater effect on pain & functional status compared with other interventions.

PT vs ….

- Surgery
- Medication
  - USA 8.6% world population
  - 80% prescription narcotic consumption
- Rest
  - Worst treatment ever
PT & OA

- Effectiveness of Manual Physical Therapy & Exercise in Osteoarthritis of the Knee

- A combination of manual physical therapy & supervised exercise yields functional benefits for patients with osteoarthritis of the knee & may delay or prevent the need for surgical intervention.

Personal Experiences with PT/MD Team Care

- Cost savings
- Better outcomes
- Refer back for concerns

PT Equipment
PT Equipment that Counts

• Head
• Hands

Clinical Example - John

• 20-something uninsured snowboarder
• “Hucked” a cliff expecting to land in powder
• Hit hard pack – snow had slid
• Injured knee
• Came to see me several months later
• Wanted MRI

Clinical Example 1 - John

• Exam showed tender joint line & restricted motion
• Options
  – MRI vs PT with manual skills
  – High cost vs low cost
• Picked PT & “stuck” meniscus mobilized
• Left PT without pain
  – 1 treatment & $75 dollars later
Clinical Example 2 - Jill

- Radicular back pain
  - 27 yo woman stepped in pothole (unexpected)
  - 3 weeks ago
  - Pain in L low back
  - Radiates down leg to ankle, skips knee
  - Radiates to groin
  - No red flags
- Wants MRI
  - Friend had disc surgery

Clinical Example 2 - Jill

- SMR, SLR exam negative
- PSIS high on right
- Leg lengths unequal & shift sit to lie

- What to do?

Clinical Example 3 - Jasper

- Concussion with headache x 2 days
  - 17 yo hockey player
  - Checked hard into boards – head hit glass
  - Did not see check coming
- Persistent symptoms – headache predominant
Clinical Example 3 - Jasper

- What to do?
- When to return?
- Who can clear to play?

Clinical Example 4 - Julia

- Foot pain with “Ankle Sprain”
  - 29 yo lawyer
  - Persists at 3 weeks
  - No swelling
  - ATF & CF non tender
  - Tender over cuboid
- Wants MRI
  - Friend had “fracture & surgery”

Clinical Example 4 - Julia

- What to do?
Clinical Example 4 - Jack

- 62 yo direct access patient
- Pain in hips with decreased & painful ROM
- Thinking OA hips
- May need bilateral THA
- What to do?

Where PTs can be PCP?

- Using Military Model – MSKI
  - Evaluation
  - Treatment
  - Return to activity
  - Prevention

Collaboration in an Ideal World

- Trust other providers skill sets
- Work at top of license
- Start small & build
  - Ankle sprain
  - Back pain
  - Concussion care
- Talk up team
  - Reinforcing patient plan
  - Exercise will decrease pain & increase function
Creating Relationships

• Not all PTs or MDs are equal
• Know your MDs & what they do
• Know your PTs & what they do
• Talk to each other for better rapport & results
• Ask the patient what the PT or MD does

Creating Relationships

• Call or email MD directly when you have a medical question
  – Happy to answer it
• Faxes sometimes get to MDs – usually late
• Calls to the clinic sometimes get through
• Always use “physicians/providers” option when calling a clinic
• Sending a written note with the patient for MD works great

Creating Relationships

• You know you have a solid relationship with an MD or PT when:
  – Cell number is programmed into your cell phone
  – You have their direct email address
Vision for Interdisciplinary Clinics

• If people have no experience or no vision change won’t happen
• Change will be forced by transition from production reimbursement model to outcomes reimbursement model
• People vote with their feet

Summary

• Independent practice
  – Worked hard to get it
  – Use it
• Part of the health care team
• You can
  – Reduce costs
  – Improve outcomes
• Use it or lose it

Thank You!