Referral for Imaging: Autonomy and Accountability

- James Elliott, PT, PhD, FAPTA, University of Sydney
- Aaron Keil, PT, DPT, OCS
- Connie Kittleson, PT, DPT
- Amma Maurer, MD
- Scott Rezac, PT, DPT
- Daniel Watson, PT, DPT

How did we get here?

Imaging in Physical Therapy...From Classroom to Clinical Practice

James Elliott, PT, PhD, Northwestern University
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Referral for Imaging in Physical Therapist Practice: A Pragmatic Vision

Bill Boissonnault, Scott Rezac, Kip Schick/Connie Kittleson, Angela Shuman, Aaron Keil

SESSION OBJECTIVES:

1. Appreciate the results of nearly two years of documented clinical cases where a licensed physical therapist, acting in accordance with their state practice act, referred for their patient for appropriate, guideline-supported, imaging tests.
2. Communicate with radiologists and other providers in referring for imaging and following-up as indicated from the radiology report.
3. Provide a vision for enhanced physical therapy delivery by understanding the integration of imaging into practice.
4. Cite appropriate research that supports granting physical therapists privileges to order imaging studies directly.
5. Describe the impact diagnostic imaging can have on clinical decision making when ordered appropriately.
6. Develop a plan to secure administrative and/or PT Board support for granting physical therapists privileges to order imaging.
7. Prepare effectively to answer common questions and concerns over granting therapists diagnostic imaging privileges.

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Solicitation of questions from participants will begin upon their entry and will continue through sessions. This may be done simply with notecards and/or web-based tools.

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<th>Time (mins)</th>
<th>Explanation</th>
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<td>Introduction</td>
<td>Jim Elliott</td>
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<td>An overview of the sessions.</td>
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<td>Multi-States</td>
<td>Scott Rezac, Aaron Keil, Connie Kittleson</td>
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<td>Diagnostic examples of clinical referral for imaging in civilian practice across different states.</td>
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<td>Radiology</td>
<td>Amma Maurer</td>
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<td>What do Radiologists think about all of this? What kind of communication do they prefer before, during, and after the consultation, especially if the referral is non-credible.</td>
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What Does This Mean?

- "With Great Power Comes Great Responsibility"
  - Stan "The Man" Lee
  - 1922-2018

What Does This Mean?

- Increase in Autonomous Practice
  - Decreased wait times for needed imaging for the patient to rule out deleterious pathology
  - Pathology specific imaging, not regionally based

What Does This Mean?

- Increase in Autonomous Practice
- Increase in Liability
  - Radiation exposure
  - ED vs free standing center depending on pathology suspected
  - Overutilization concerns
What Does This Mean?
• Increase in Autonomous Practice
• Increase in Liability
• Increase in Responsibility
  • Need to increase our knowledge base
  • Need to increase interdisciplinary communication

What Does This Mean?
• Increase in Autonomous Practice
• Increase in Liability
• Increase in Responsibility
  • Need to increase our knowledge base
  • Need to increase interdisciplinary communication
  • Responsibility for adverse findings and appropriate management of the same

Know Your Scope!
• Title: Scope of Physical Therapy Practice Date Issued: March 21, 2014
  Purpose: Clarifying scope of practice for physical therapists authorized by statute. A licensed physical therapist may order or perform, with clinical justification, any diagnostic imaging which is within the recognized standards of the practice of physical therapy, including magnetic resonance imaging (MRI).
  • Most states have a “duty to refer” clause.
Scenario #1

• 16 year old male athlete with primary complaint of focal left hip pain noted during track and field running with audible pop and fall on week ago
• Partially resolved over several days and referred to Physical Therapy for sport specific rehab
• Suspected avulsion fracture with tuning fork and conduction testing questionable
• Referred for x-rays which were negative

Scenario #1

• 16 year old male athlete with primary complaint of focal left hip pain noted during track and field running with audible pop and fall
• Partially resolved over several days and referred to Physical Therapy for sport specific rehab
• Suspected avulsion fracture with tuning fork and conduction testing questionable
• Referred for x-rays which were negative
• Clinical suspicion remained extremely high, so what to do?

Scenario #1

• Called the radiologist who did the read over of the original image
• During discussion he concurred and recommended advanced imaging
Scenario #1

• Called the radiologist who did the read over of the original image
• During discussion he concurred and recommended advanced imaging
• MRI indicated two avulsion fractures of the ASIS and AIIS, non displaced

Scenario #2

• 31 year old female s/p MVC, rear impact and launched into second vehicle. Midline pain, headaches, dizziness with No ED visit. Sent to pain management for injections. Once cervical spine pain was well controlled she was referred to physical therapy.
• During subjective portion of evaluation she reported dizziness with shaving her left armpit.
• Stat CT of the CS ordered per Canadian CS rules, was negative per report
Scenario #2

- Partial cervical rib and unclosed lateral foramen noted upon closer evaluation, suspicion of subclavian steal that was clinically correlated
- Improving clinically and declines neurovascular consult or potential surgical intervention (remember the pillars).
- Following improvement to shoulder girdle and chest wall mechanics and upper quarter stability training, VBI negative and upper extremity vascular supply equal to uninvolved side.

Aaron Keil PT, DPT, OCS
Clinical Associate Professor
University of Illinois at Chicago
Achieving Direct Access and Imaging Privileges:

Pursuit and Implementation of Hospital Based Outpatient Direct Access to Physical Therapy Services: An Administrative Case Report

Phys Ther. 2010;90(1):100-109
The Decision to link DA with Imaging

PT Board Opinion
The Decision to link DA with Imaging
Local leader support

Clinical Competencies:

Medical Screening: 16 hrs.
- Review articles
- Clinical vignettes

Diagnostic Imaging: 16 hrs.
- Review articles
- Shadow Radiology

Initial Practice:
First 10 DA cases reviewed
Advanced imaging reviewed

Ordering of Diagnostic Imaging by Physical Therapists: A 5-Year Retrospective Practice Analysis

PTJ
(A Kell, B Baranyi, S Mehta, A Maurer)
Overutilization?

Appropriateness?

Clinical impact?

**Utilization of Diagnostic Imaging**
(Per new DA patient evaluation)

<table>
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<tr>
<td>Radiographs</td>
<td>69</td>
</tr>
<tr>
<td>Advanced Imaging</td>
<td>39</td>
</tr>
<tr>
<td>Total Imaging Utilization</td>
<td>94</td>
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**Imaging Details:**
(108 tests ordered)

69 Radiographs

39 Advanced Images
Appropriateness?

Who decides appropriateness?

- Retrospective review of all 108 orders by a board-certified radiologist
- 91% were considered appropriate (98/108)
  - According to the American College of Radiology Appropriateness Criteria

Clinical impact?
TREAT
AND REFER
TREAT
HOLD PT:
- Distal femur fracture
- Talus fracture
- Deltoid ligament rupture
- Osteochondroma
- Hemangioma

Begin PT and refer:
- SLAP tear
- Stress fractures

Condition effectively ruled out
No referral needed

Reimbursement for imaging ordered by PT = ___%

Take home message:
- Linking DA and Imaging just makes sense
- Achieving imaging privileges can be done
- PTs have shown judicious use
- Insurance will pay

It’s best for the patient
Wisconsin Imaging Update

Connie Kittleson, PT, DPT
President
Wisconsin Physical Therapy Association

Wisconsin Update

• From 2005-2009 PTs in Wisconsin ordered x-rays.
• In 2009, legislation passed that did not allow radiological technologists to accept a referral from a PT.
• In 2016, new legislation passed securing in statute both the ability for some PTs to order x-rays and the ability for those referrals to be accepted.
• In August 2017, rules passed clarifying which PTs in Wisconsin are allowed to order x-rays.

Wisconsin Update

• In Fall of 2018, we surveyed the membership of the Wisconsin chapter (1721 PTs) regarding their practice related to ordering x-rays.
  • We encouraged all members to respond even if they did not order x-rays.
  • 484 physical therapists responded (28%)
Level of Degree of Respondents

Practice Setting of Respondents

PTs ordering Xrays

2.89% signed an xray order between 2005 and 2009
4.34% signed an xray order after August 2017
Are You Allowed to Order?

- 31.2% - currently allowed to order x-rays in clinical practice
- 52.07% - not allowed
- 16.74% - unsure

- 58.68% - clinical doctorate in physical therapy
- 31.82% - specialty certification
- 10.33% - national residency or fellowship
- 10.95% - formal x-ray ordering training program

Does Employer Allow You to Sign Orders for X-rays?

- 22.93% allowed by employer to sign orders for x-ray imaging
- 75.62% not allowed

Who is Ordering?

- Gender (Aug 2017–Present)
Who is Ordering?
HIGHEST LEVEL OF EDUCATION (2005-2009)

Baccalaureate: 20%
Master's: 23%
PhD: 2%
DPT: 45%
tDPT: 10%

Who is Ordering?
HIGHEST LEVEL OF EDUCATION (AUG 2017-PRESENT)

Baccalaureate: 19%
Master's: 10%
PhD: 5%
DPT: 52%
tDPT: 14%

Who is Ordering?
BOARD CERTIFIED SPECIALISTS

Board Certified Specialists: 21%
Non-Board Certified Specialists: 79%

Who is Ordering?
BOARD CERTIFIED SPECIALISTS
Who is Ordering?

PRACTICE SETTING (2005-2009)

Hospital Based OP Facility 43%
Private OP Facility 28%
Acute Care + IP Rehab 8%
Skilled Nursing 5%
Academic 5%
Home Health 4%
School Based 2%
Other 5%

Who is Ordering?

PRACTICE SETTING (AUG 2017 – PRESENT)

Hospital Based OP Facility 43%
Private OP Facility 30%
Acute Care 10%
Home Health 10%
Skilled Nursing 14%
Other 14%

Who is Ordering?

PRACTICE SETTING (AUG 2017-PRESENT)

Hospital based OP Facility 43%
Private OP Facility 9%
Acute Care 10%
Home Health 10%
Skilled Nursing 14%
Other 14%

Who is Ordering?

PRACTICE SETTING (AUG 2017–PRESENT)

Hospital Based OP Facility 43%
Private OP Facility 28%
Acute Care + IP Rehab 8%
Skilled Nursing 5%
Academic 5%
Home Health 4%
School Based 2%
Other 5%
Where are xrays being taken?

- Most respondents indicated that once referred for xray, most patients had their images taken in the hospital radiology department within their healthcare organization.
- The next most commonly cited location was a diagnostic imaging center not owned or operated by a hospital organization or a standalone diagnostic imaging center.
- The least cited locations were a hospital radiology department separate from their healthcare organization and a privately owned physician clinic.

Percentage of patients still needing xray?

When asked “What percentage of your patients presented in your clinic needing an xray, but have not already had one taken?”, the answers were as follows:

- 81-100% (4.17%)
- 61-80% (0%)
- 41-60% (12.50%)
- 21-40% (4.17%)
- 1-20% (79.17%)
- 0% (0%)

Who orders when there is still a need?

When asked “When you determine that a patient needs an xray, but has not already had one, how often are you the provider who signs the imaging order”:

- Only 13.04% indicated “Never”
- 30.43% indicated “Most of the Time”
When asked to indicate how often respondents ordered images for various body regions, no clear predominance was seen except for that a significant # indicated that they never order images of the head.

C-spine, T-spine, L-spine, Pelvis/Sacrum, Upper Extremity, and Lower Extremity were all approximately equally represented in responses.

According to Wisconsin State Statutes, a PT must communicate with the patient’s primary care physician or an appropriate health care practitioner unless all of the following apply:

1. The radiologist has not identified a significant finding.
2. The patient does not have a primary care physician.
3. The patient was not referred to the PT by another health care provider.

When asked “When you have been the provider how signed an imaging order, how often have you been required to communicate the findings with the physician or an appropriate health care provider?”, responses were as follows:

- Always (18.18%)
- Most of the time (22.73%)
- About half of the time (9.09%)
- Sometimes (27.27%)
- Never (22.73%)
Feedback from Patients

Three main categories of feedback:

- Positive (16)
- Patients Unaware (8)
- Barriers (5)

Feedback from Patients

Positive Comments (16)
Examples:
- They love it.
- All positive.
- Appreciative of the efficiency.
- They appreciated not having to pay for a physician appointment just to have an x-ray ordered.
- They feel confident in our judgment.
- Generally positive and grateful that they don’t have to go see another provider before getting a radiograph.
Feedback from Patients

Patients Unaware Comments (8)
Examples:
• Patients overall are not aware that we are able to do this.
• It is not something on their radar.

Feedback from Patients

Barriers Comments (5)
Examples:
• They don’t want to get trapped for paying for something that won’t be covered if ordered by a PT.
• This has not been initiated at the healthcare system where I work.
• I do not feel comfortable in ordering x-rays and find it easy to request a physician’s orders if I think it would be helpful to my treatment.
• I have a good working relationship with MDs. If I feel an xray is needed I tell them and why. They almost always order the xray the same day.

Feedback from Physicians and other HCPs

Four main categories of feedback:
• Positive (12)
• Negative (22)
• Unaware (9)
• Unable/Not Applicable (7)
Feedback from Physicians and other HCPs

Positive Comments (12)
Examples:
• Actually usually expected we will order necessary imaging.
• No negative feedback yet personally. They just want communication with them.
• Strong support.
• Want collaboration.
• Most think it’s a great idea.
• Little feedback, mildly supportive.

Feedback from Physicians and other HCPs

Negative Comments (22)
Examples:
• Physicians are reluctant and are concerned PTs will screw up things.
• Resistance. My impression is that they feel it will take away from their referrals.
• Minor levels of concern about care fragmentation and errors in ordering.
• Overall culture of physicians should be the only ones allowed.
• Some are concerned about ability to manage findings and communicate with patients.
• It is outside of our scope of practice.
• I was told “It is not your role.”

Feedback from Physicians and other HCPs

Unaware Comments (9)
Examples:
• My patient was a healthcare provider herself, and was surprised and impressed that we were able to order radiographs on the spot to rule out a fracture and continue with PT treatment.
• They are unsure of our knowledge base on ordering x-rays.
• They are not even aware it is legal and within the PT scope.
Feedback from Physicians and other HCPs

Unable/Not Applicable Comments (7)
Examples:
• Hospital will not take an order from us.
• No one is sure if it will be “covered” with PT as the referring provider.
• In our organization, we have initiatives to decrease the ordering of imaging by all providers, and giving PTs ability to order x-rays would be center to that initiative. It is a battle I intend to pursue, but there will be pushback for that reason.

Feedback from Physicians and other HCPs

Difficulties Related to Insurance Reimbursement?

Three main categories of feedback:
• No issues (5)
• No coverage (20)
• Unaware/Unknown (10)

No issues comments (5)
Examples:
• Haven’t had any and when we were going through training it didn’t appear to be a concern as long as the insurance allowed direct access.
• Have not had any issues to my knowledge.
No coverage comments (20)
Examples:
• Patient says not covered.
• Employer doesn’t like it because they say its not covered. Don’t really give us a
  chance to try it though.
• I am not always sure whether it will be covered and in many cases am hesitant to
  incur a bill for the patient for a test that would be covered if ordered by a
different provider.
• Our facility just assumes it will not be covered and has PTs request the order
  from the PCP or referring provider.
• I see primarily patient with state insurances who won’t reimburse ANYTHING
  without prior authorizations and physician referrals.

Unaware/Unknown comments (10)
Examples:
• Because we refer out to a vertically integrated system, we are unaware of the
  payment issues that may arise from our order.
• Do not know. We are independent private practice. There are no imaging centers
  near us.
• It has not yet been implemented in our clinic therefore no insurance issues have
  been encountered.

Seven main categories of feedback:
• Supportive (2)
• Do not support (5)
• Utilize other workflow/no need for ordering (19)
• Has not been implemented yet (14)
• Want more Information (9)
• Miscellaneous (4)
• Appreciative (4)
Supportive (2)
Examples:
• This has helped with direct access patients whom I think need to have the x-ray so they get care they need. In most cases the injury was misdiagnosed by a high school trainer or at the UC.
• Important for PTs to be able to order as we increasingly become more of the entry point for patients to health care.

Do Not Support (5)
Examples:
• Prefer to emphasize clinical exam to guide assessment and treatment.
• I don’t believe PTs are trained to properly read xrays. I don’t feel a clinician should order a test they cannot interpret.
• Too expensive for us for the information they would actually provide.

Utilize other workflow/no need for ordering (19)
Examples:
• I have been recommending patients get imaging at the local walk in clinic as it would be covered by their insurance (primarily medicare)
• My husband is a chiropractor and we work together. We have xray in our office and work collaboratively.
• Multiple comments about lack of need for xray in current practice setting (vestibular, pediatrics, school based, neuro)
Has not been implemented yet comments (14)
Examples:
• Although our clinic is not opposed to ordering xrays, we haven’t really set up the pathways for ease of implementation including the appropriate PT training to do so.
• I am in private practice and we haven’t yet been able to set up appropriate channels through our local hospital to allow them to allow us to order imaging.
• At my organization, since not every PT in the healthcare system meets the requirements for ordering xrays, we are unable to implement a process for “some” clinicians to have these privileges while others do not.

Want more information comments (9)
Examples:
• Do I need a script pad?
• I don’t know what views to order.
• Would this be paid for?
• Who would interpret the xray?
• PTs have a general lack of knowledge of scope that our practice act allows…with ordering xrays as well as direct access.
• Educational materials for how facilities can alter policies to allow PTs to order xrays would be beneficial (similar to hose provided for direct access efforts).

Miscellaneous comments (4)
Examples:
• As usual, PTs are regarded as staff rather than providers. It is unfortunate that the cost of PT education is pathetically disproportionate to level of autonomy and salary.
Appreciative comments (4)
Examples:

• Thank you for surveying our membership. It is important to remove barriers for our professions. APTA and WPTA should be leading this change.

• Thank you for the work you are doing and for educating us on what we can do and how.

Imaging Autonomy and Accountability: A Perspective from the US Military

Daniel J. Watson, Lt Col, USAF, BSC

Disclosures

• The views expressed are those of the author and do not reflect the official policy or position of the United States Air Force, Department of Defense or the United States Government

• I do not have any financial disclosures.
PTs in the US Military: A 30 Second History

- First PT deployed to an active combat zone
  - MAJ Barbara Gray, 1966 in Vietnam
- Have been deployed to active combat zones since
- 1970s: gained the ability to order diagnostic imaging studies
- Currently: US Military PTs are deployed across the globe

- Primary goal: Rehabilitation of service members who are capable of returning to duty

Direct Access: Link to Diagnostic Imaging

- Retrospective analysis: 25 Military Health Care Locations
  - 40 month time period: 50,799 new direct access evaluations with 95 PTs
- No reported adverse events, credentialing/license modifications or litigation cases

Diagnostic Accuracy: Advanced Imaging

- Retrospective analysis: 560 MRIs obtained at West Point
- Agreement between clinical diagnosis and MRI findings
  - PTs: 74.5% (108/145)
  - Orthopaedic Surgeons: 80.8% (139/172)
  - Non-orthopaedic providers: 35.4% (86/243)
- No difference between PT and Ortho
  - (p > 0.05)
PTs: Diagnostic Imaging in the US Military

• Have the ability to obtain diagnostic imaging privileges
  • Radiographs
  • CT
  • MRI/MRI-A
  • DEXA

• Training requirements
  • Upon entry: usually have the ability to order with supervision by a senior PT
  • Post-training course (~16 hours) and period of supervision: eligible to obtain full privileges

• Responsibilities

Case #1: Direct Access Cervical Pain

• 21 year old male cadet
• Multiple sets, high rep overhead shoulder presses
  • Denied trauma
  • Developed acute pain 36 hours later while sleeping
• Chief complaint: posterior neck pain
• Full but painful cervical active motion
• Normal neurological exam
• Ecchymosis observed, exquisitely tender to same
Case #2: Direct Access Lower Leg Pain

- 23 year old male
- Stepped off a curb running and felt acute “pop” in the left calf 2 hours prior
- Denied change in running distance
- Full but painful ankle and knee ROM
- Mildly antalgic gait
- Exquisitely tender at midshaft of left fibula > gastrocnemius muscle belly

Case #2: Direct Access Lower Leg Pain

- Coordination
- Radiology
- Orthopaedics
- Owning the patient

Case #3: Direct Access Trauma

- 29 yo male MRAP gunner
- IED blast with < 1 min LOC
  - Vehicle rollover
- Med Evac’ed to Forward Operating Base
  - Normal Head/ Neck CT
  - Normal neurocognitive exam
- Primary complaint of LBP
  - Returned to primary base
  - Instructions: see PT in 2 days
Case #3: Direct Access Trauma

• PT eval:
  • Main complaint of LBP

• Denied:
  • Lower extremity numbness/tingling
  • Changes in bowel/bladder
  • Previous history of low back pain

• Physical exam:
  • Very guarded ROM with increase in local sx in all directions
  • Palpable step deformity of the low lumbar spine

Case #3: Direct Access Trauma

• Primary Concern
  • Acute versus Chronic injury
  • Management
    • Acute: Immobilization and medical evacuation to US
    • Chronic: Trial of treatment
  • Consult: Neurosurgeon and Radiologist
Case #3: Direct Access Trauma

19 yo female cadet
Acute posterior upper thigh pain while running sprints
Diagnosed with a hamstring strain
Treated twice with dry needling, manual therapy, modalities
Visit 3 with separate PT
Mildly antalgic gait

Case #4: Acute hip and groin pain

19 yo female cadet
Acute posterior upper thigh pain while running sprints
Diagnosed with a hamstring strain
Treated twice with dry needling, manual therapy, modalities
Visit 3 with separate PT
Mildly antalgic gait
Case #4: Acute hip and groin pain

- 18 yofemale cadet
- Acute wrist pain in the snuffbox following burpees
- Full but painful wrist extension, snuffbox tenderness
- Beighton score: 8/8 (deferred right thumb)
- On differential list: scaphoid fracture

Case #5: Acute wrist pain

- 18 yo female cadet
- Acute wrist pain in the snuffbox following burpees
- Full but painful wrist extension, snuffbox tenderness
- Beighton score: 8/8 (deferred right thumb)
- On differential list: scaphoid fracture
Case #5: Acute wrist pain

Case #5: Acute wrist pain

Case #5: Acute wrist pain
PTs: Diagnostic Imaging in the US Military

- Keys to success:
  - Owning your patient
  - How do you handle results?
  - Power and responsibility
  - Asking for help
  - Spending time with radiologists
  - Investing in a fracture management course/book
  - Staying humble

Imaging Autonomy and Accountability: A Perspective from the US Military

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Referral for Imaging: Autonomy and Accountability

The radiologist’s perspective

Amma N. Maurer, MD
According to the American College of Radiology (ACR) Practice Parameter for Communication of Diagnostic Imaging Findings...


- ‘Effective communication is a critical component of diagnostic imaging’
- ‘There is a reciprocal duty of information exchange’

Outline

- What to order?
- How to order?
- Communication of results.
- Cases.
What to order?

- The ACR Appropriateness Criteria are evidence based for the determination of appropriate imaging


How to order?

- A request for imaging should include relevant clinical information, a working diagnosis, and/or pertinent clinical signs and symptoms
- A specific question to be answered can be helpful
- Whenever possible, previous reports should be available for review and comparison

Communication of results

- Routinely occurs in the form of a finalized report (faxed or as part of the electronic medical record)
- This may be supplemented by a discussion (face-to-face or telephone), depending on the acuity of findings and also on the need for additional follow up
- Use of other methods of communication must involve a means of ensuring receipt


Communication of results

- ‘Effective communication is a critical component of diagnostic imaging’
- ‘There is a reciprocal duty of information exchange’


Physical therapy – Radiology communication at Medstar Georgetown University Hospital

- Direct conversation
- Monthly joint conference
- Physical therapy residents and students spend time in the radiology department

→ Facilitates mutual learning and improved patient care
Case #1

- 64 F with left shoulder pain and weakness after a fall. No fracture on images at an outside institution.
- Referred for PT
- PT concerned about marked weakness with minimal improvement → MR of the shoulder ordered by physical therapist to evaluate the rotator cuff

Case #1

- PT used results to send the patient to a shoulder orthopedic specialist.
- Pros and cons discussed with patient: subacromial injection with continued physical therapy, arthroscopic rotator cuff repair, reverse total shoulder arthroplasty.
- Patient opted for a subacromial injection which helped her maximize physical therapy. Expectations for improvement were also adjusted based on findings
Case #1 highlights

The ability to order the MRI:

• Helped address the physical therapists’ concerns for a significant rotator cuff tear
• Expedited patient care as the patient already had the MR performed prior to seeing the shoulder specialist
• Allowed the patient’s regimen and expectations of therapy to be appropriately adjusted

Case #2

• 16 M pitcher with posterior shoulder pain, referred for physical therapy after negative radiographs.
• PT concerned about pain intensity
• Discussed concern for possible posterior labral tear with radiologist
  ➔ MR arthrogram of the shoulder ordered

Axial T1 FS

Axial PD
Case #2 highlights

- Communication with radiology ensured that the appropriate study (MR arthrogram, rather than an MR) was ordered to answer the clinical question of labral tear
- Provision of appropriate history allowed the radiologist to scrutinize the area of concern (posterior shoulder) for subtle pathology

Case #3

- 30 F post arthroscopic excision of a large suprapatellar cyst
- Scheduled to begin PT 2.5 weeks later.
- However, presented to the ED at 5 days post op with knee pressure, swelling and limited range of motion.

Case #3

- Declined therapeutic arthrocentesis and discharged with pain management
- At outpatient followup 8 days post op, pt apprehensive about knee movement with knee stiffness.
- Taught home exercises as a bridge to PT which began as initially scheduled 2.5 weeks post op
Case #3

- Severe pain with attempts at knee flexion during physical therapy
- PT concerned about minimal improvement → Discussed with Orthopedist, with MRI suggested

Case #3

- Patient underwent manipulation under anesthesia
- Improved with subsequent physical therapy
Case #3 highlights

• PT understanding of patient symptoms and concomitant understanding of the utility of imaging facilitated appropriate patient care.

Case #4

• 51 M with severe COPD referred to physical therapy for low back pain
• Worsening symptoms
• PT thoroughly reviewed the patient’s history, which included ED visits over the prior 1½ mo for shortness of breath, chest pain, right upper quadrant abdominal pain and low back pain, and treatments for respiratory failure/COPD exacerbations

Case #4

• PT noted mild thoracic and lumbar compression fractures on a CTA chest report 1 ½ mo prior, with the lumbar compression fracture appearing similarly on abdominopelvic CT 1 mo prior
Case #4

- PT presented case at PT-Rad conference
- Discussed that, unlike MR, a determination of vertebral fracture acuity on CT imaging often cannot be made → patient sent to Orthopedics as there was clinical concern that the fractures might be contributing to the patient’s symptoms

Case #4

- Orthopedist ordered lumbar radiographs, revealing new lumbar compression fractures
Case #4

• Ultimately, patient treated with a lumbosacral corset and was started on bisphosphonate therapy as osteoporosis from steroid use was felt to be the etiology.

Case #4 highlights

• PT thoroughly reviewed the patient’s record, including the body and impression of radiology reports.
• Communication between PT and radiology facilitated a discussion about the patient’s imaging findings, symptoms, and best next step.
Conclusion

• Ordering of imaging by physical therapy can positively impact patient care
• Communication between physical therapy and radiology is critical for successful implementation