Imaging in Physical Therapy… From Classroom to Clinical Practice

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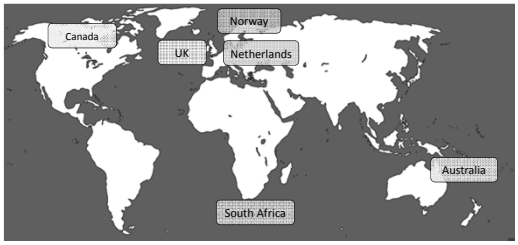
Imaging in PT Practice: Established Model Internationally



Model Used Domestically in Limited Jurisdictions

Over 4 decades in US military

Other institutions: Public Health Service
Indian Health Service
Other civil service sectors

Civilian Settings: Georgetown University Hospital
Kaiser-Permanente
University of Wisconsin Hospital & Clinics
Selectively used by practitioners in Colorado

In PT Practice for the Future

Logical extension of 1st contact clinician

Consistent with clinical doctorate status

Management decisions / referral

What is being taught in the US?

Survey of accredited programs:

75% of curricula (155) responded

98% included imaging

Remarkable inconsistency in instructional content

Range: 2 - 75 hours

Mean: 24.4 hours

MSK emphasis at 76% of total

Boissonnault et al, 2014

"Imaging Education Manual for Doctor of Physical Therapy Professional Degree Programs"

Written by Imaging SIG

Published by Orthopaedic Section, April 2015

Contributions from educators, clinicians, researchers across US

"How to" guide for DPT curricula

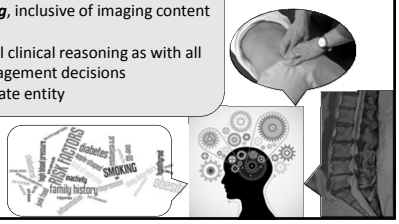
Includes suggested methods & exam questions

available at www.orthopt.org

Conceptual Framework of Imaging Instruction

Not teaching "imaging"
Teaching ***clinical reasoning***, inclusive of imaging content

Integration into our typical clinical reasoning as with all other patient data & management decisions perspective----not a separate entity



Bases for Imaging Decision Making in ACR Appropriateness Criteria

- Age
- Trauma presence/absence
- Mechanism of injury
- Prior surgery
- Risk factors
- Appearance
- Pain provocation / physical function tests
- Other imaging results
- Weight-bearing ability
- Tenderness to palpation

Well established in PT educational curricula & clinical practice

Other Existing Standards & Practices

Normative Model of Physical Therapist Professional Education
- No specific content on depth or breadth
- Numerous statements mentioning imaging specifically & other diagnostics

Clinical Performance Instrument
- At least 9 performance criteria allude to imaging

CAPTE

Evaluative Criteria
PT Programs

August 2014

"Two separate studies of DPT programs, as well as data collected in the Biennial Accreditation Report, indicate that, in the main, programs converting to offering the DPT are making important, substantial changes. Among them are:

Increased content in areas such as diagnostics, imaging ……"

CAPTE:
PT Standards & Required Elements

Effective January 1, 2016

Standard 7
The curriculum includes content, learning experiences, and student testing and evaluation processes designed to prepare students to achieve educational outcomes required for initial practice in physical therapy and for lifelong learning necessary for functioning within an ever-changing health care environment.

REQUIRED ELEMENTS:

7A The physical therapist professional curriculum includes content and learning experiences in the biological, physical, behavioral and movement sciences necessary for entry level practice. Topics covered include anatomy, physiology, genetics, exercise science, biomechanics, kinesiology, neuroscience, pathology, pharmacology, diagnostic imaging, histology, nutrition, and psychosocial aspects of health and disability.

Evolving Legislative Authority

Wisconsin Act 375:

Physical therapists granted privileges for ordering radiography

Signed into law April 2016

Other States:
- Colorado
- Maryland

Legislation considered in other states

"Diagnostic & Procedural Imaging in Physical Therapist Practice"

"*White Paper*"
Published May 2016 by the Orthopaedic Section, APTA

Comprehensive perspective
History, present & future
Evidence in support of expanded privileges
Addresses required legal, institutional & payer changes

available at www.orthopt.org

House of Delegates RC 12-16

Prior to NEXT, June 2016

Charged APTA to pursue **practice authority** for imaging in PT practice

Passed with **93% favorable vote**

To address processes & barriers

APTA soon to analyze all state practice acts & monitoring in State Affairs

Parallels to Thrust Manipulation Education

- 2002 • 44% of curricula included Boissonnault et al. 2004
- 2004 • Manipulation Education Manual APTA, 2004
- 2006 • CAPTE Std 7D27 "…thrust & non-thrust…" CAPTE, 2006
- 2012 • 99% of curricula included thrust Noteboom et al. 2015

Imaging Resources

Becky Rodda, PT, DPT, OCS
Clinical Professor
Physical Therapy Department
School of Health Professions and Studies
University of Michigan - Flint

What content do I need to teach?

Imaging Education manual for Doctor of Physical Therapy Professional Degree Programs by APTA Orthopedic Section, Imaging SIG

- https://www.orthopt.org/uploads/content_files/ISIG/IMAGING_EDUCATION_MANUAL_FINAL_4.15.15..pdf

APTA Resources

- Guide to Physical Therapist Practice (Guide 3.0)
- A Normative Model of Physical Therapist Professional Education: Version 2004
- Minimum Required Skills of Physical Therapist graduates at Entry-level

What Textbook would you use for students?

McKinnis, L Fundamentals of Musculoskeletal Imaging, 4th ed. FA Davis, ISBN: 978-0-8036-3821-1 2014

- Basic introductory book. Has chapters on the different patterns such as neuro, cardiopulmonary as well as musculoskeletal etc. This is used in several courses as a reference for medical imaging.

Malone T, Hazle C, Grey M. Imaging in Rehabilitation. McGraw Hill, ISBN: 978-0-07-144778-2 2008

- Introductory book on all imaging modalities including ultrasound, MRI etc.

Reference Textbooks

McKinnis, L Musculoskeletal Imaging Handbook: A Guide for Primary practitioners. FA Davis ISBN 978-0-8036-3917-1

- New handbook, does not have the depth of the Fundamentals book but it is a great resource for practicing physical therapists. Includes the ACR guidelines for each area of the body. Has information on various imaging studies as well.

Greenspan A. Orthopedic Imaging, A Practical Approach, 6th ed. Lippincot Williams and Wilkins. ISBN: 13: 978-1451191301 2014

- A primary reference book for medical schools, practicing radiologists and orthopedic physicians.

Where Can I Get Imaging Studies to use in lectures?

http://radiologyreviewarticles.com/msk/musculoskeletal-imaging-websites/

- has a list of different web sites you can review, some have pathology, some have actual cases

http://www.acr.org/

- Main web site

http://www.acr.org/Quality-Safety/Appropriateness-Criteria

- go to basic access or advanced search

http://xrayhead.com/

- Stanford MSK MRI Atlas, has specific cases that can be used

https://medpix.nlm.nih.gov/

- Over 53,000 cases, medical imaging data base, has a case of the week

http://learningradiology.com

- Online teaching, lectures

http://www.imagingpathways.health.wa.gov.au

- Imaging pathways or flow sheets for decision making on which type of study to order

https://www.mypacs.net/mpv4/hss/casemanager
- This free website has over 30,000 cases that use imaging

http://www.uth.tmc.edu/radiology/presentations/index.html
- Diagnostic imaging presentations

http://uwmsk.org/
- University of Washington, Department of Radiology
- Interactive anatomy Modules and Radiographic information
- Radiographic anatomy of the Skeleton

www.auntminnie.com
- Great resource for all things Radiology and (Case of the Day)

http://www.jospt.com
- Monthly MSK imaging case

Other Sources for Imaging?

Ask family, friends

or whom ever may be able to lend you images

- Get a signed release so no HIPAA violations occur

I don't know enough to teach this information. Where do I go to get more education?

Evidence in Motion course: Radiology/Essentials of Musculoskeletal Imaging cost $650
- http://www.evidenceinmotion.com/educational-offerings/course/radiologyessentials-of-musculoskeletal-imaging/

Rehab Education cost $250
- http://www.rehabed.com/musculoskeletal-imaging-for-the-physical-and-occupational-therapist/

Med Bridge $100
- Basic Musculoskeletal Radiology and Imaging
- https://www.medbridgeeducation.com/courses/details/basic-musculoskeletal-radiology-and-imaging

Diagnostic Imaging Education:
Military Model

US Army-Baylor Doctoral Program in Physical Therapy

Producing Clinician Scientists and Leaders of Tomorrow!

U.S. ARMY MEDICAL DEPARTMENT AMEDD CENTER & SCHOOL

The views expressed in this presentation are those of the author(s) and do not reflect the official policy or position of the Department of the Army, Department of the Air Force, Department of the Defense, or the US Government.

Army-Baylor DPT Mission Statement

To produce active duty, commissioned physical therapists who are clinician scientists and leaders prepared for worldwide military health system practice

History

- > 4 decades of successful, safe and accurate integration of diagnostic imaging in the US Military (Greathouse, 1994)
- 90.9% agreement between clinic exam and MRI Dx for direct access PT (Moore 2005a)

TABLE 2. Percent agreement between clinical diagnosis (CD) and magnetic resonance imaging (MRI) by specialty.

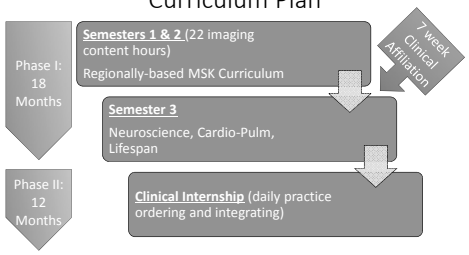
Providers	CD/MRI Agreement	Total MRI	Agreement
Physical therapists	108	145	74.5%
Orthopaedic surgeons	139	172	80.8%
Nonorthopaedic providers (all)	86	243	35.4%

- No adverse effects in 472K direct access PT visits, includes diagnostic imaging ordering and prescribing medications (Moore 2005b)

Military Scope of Practice

- Musculoskeletal Injuries are Common!
  - 18.6M active duty healthcare visits in 2015 (MSMR, 2016)
    - Average 14 visits per member
    - 45% increase since 2006
    - 30% of all visits MSK-related, and on the rise!
- Direct access / first contact
- Home station and deployed environments
- Diagnostic Imaging is a core standard clinical privilege across Army, Navy, Air Force and Coast Guard

Army-Baylor DPT Curriculum Plan



Imaging Content: Semesters 1 & 2

- 2-hour lecture: Introduction to Radiology
  - Principles of Imaging
  - Modality indications & contraindications
  - Safety
  - Introduces:
    - Clinical guidelines – Canadian C-spine, Ottawa Knee/Ankle; Low Back Pain
    - ACR Appropriateness Criteria
    - Principles of ordering diagnostic imaging
- 7 regional blocks
  - 2 hour plain films lecture:
    - Anatomy, pathology
    - Guidelines, ACR Appropriateness, clinical indicators

Imaging Content: Semesters 1 & 2

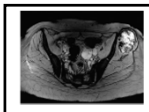
- Advanced Imaging
  - Three 2-hour blocks covering:
    - Anatomy and pathology
    - Guidelines, ACR Appropriateness, clinical indicators
    - Procedures for ordering MRI, CT, Bone Scan, Dx US
    - Integrating imaging results into exam/management
  - Coincides with regional MSK instruction
    - Lower extremity
    - Upper Extremity
    - Spine – includes exposure to US use for clinical biofeedback

Parallel Content: Semesters 1 & 2

- MSK Region: Examination & Management
- Primary Care
  - 1 hour medical screening per region
  - Signs/symptoms, systems review and medical comorbidities
- Clinical Affiliation: initial exposure to integrating imaging into practice
- Competence Assessment
  - Written Exams: identify anatomy, pathology and principles of management/integration
  - Imaging decision-making integrated into MSK region practical and written exams, and primary care exams
  - Oral comprehensives prior to beginning Clinical Internship

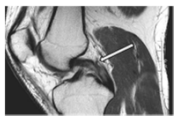
Imaging Content: Clinical Internship

- 1-year experience in military clinics/hospitals
- CIs are Fellowship Trained clinicians with full scope of clinical privileges to order diagnostic imaging
- Interns generally allowed to order imaging with-in 2 weeks of start date
  - Clinical discussion with faculty
  - Faculty approve all electronic orders/documentation
- Receive 16-30 hrs with MSK Radiologist

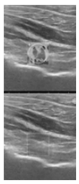


Capstone Project

- Case presentation demonstrating medical screening and diagnostic work-up
- 3 imaging cases published since 2014
  - Sperier et al, JOSPT, 2015
  - Dummar, et al, OPTP, 2015
  - Butler, et al, OPTP, 2015



Army-Baylor DPT Dx Imaging Research



- Faculty-led, student driven research program
- > 25% of DPT students involved in imaging research
  - DN in patients with LBP, neck pain
  - Shear Wave Elastography
  - Foot/ankle instability
- > $500K intramural research funding since 2013
- Equipment: 4 Sonosite Titan; 1 Supersonic Imagine Ultrasound Elastography machine
- 5 conference platforms/posters since 2014

Diagnostic Imaging Education: Small Private University

- Liberal Arts Education
- 2,600 Undergraduates
- 270 Graduate (DPT, OT, Med)
- No Medical School/ Medical Center Affiliation
- Located in Tacoma, WA

UNIVERSITY of PUGET SOUND

University of Puget Sound DPT Mission Statement

To prepare students at the clinical doctoral level for entry into the physical therapy profession. Our presence on a liberal arts campus underscores our belief that the development of clinician scholars is a natural extension of the values of critical analysis, sound judgment, active inquiry, community participation and apt expression. Through a careful blending of rigorous academic work and mentored clinical practice, our program seeks to prepare clinician scholars for informed, ethical, and efficacious professional practice.

UPS DPT Curriculum Plan

Year One (foundational year)

- Students concentrate on foundational courses, begin to plan research projects, and begin to study elements of clinical management. Anatomy, Neuroanatomy.

Year Two (clinical education year)

- Students' main focus is to learn all aspects of patient examination, assessment, and treatment design, progressively dealing with more complex situations through integrated experiences under close supervision in the on-site clinic.
- **Summer: 1st full time 12 weeks internship**

Year Three

- **Fall semester**: Capstone projects, take on greater responsibility in the on-site clinic, and study areas of special interest in advanced elective courses.
- **Spring semester**: two, 12 weeks off-campus internships.

MSK Imaging Within the Orthopaedic Content

- Fall semester, 2nd year:
  - Lumbopelvic spine, hip, knee, foot & ankle.
  - 2-hour lecture: Introduction to Radiology
    - Principles of Imaging
    - Modality indications & contraindications
    - Safety
    - Introduces:
      - Clinical guidelines – Canadian C-spine, Ottawa Knee/Ankle; Low Back Pain
      - ACR Appropriateness Criteria
      - Principles of ordering diagnostic imaging
  - 1 hour region specific blocks.
  - Integrate into lab/clinical scenario discussions.
- Spring semester, 2nd year.
  - Cervicothoracic spine, shoulder, elbow, wrist & hand.
  - 1 hour region specific blocks.
  - Integrate into lab/clinical scenario discussions.

Key Instructional Resources

- McKinnis textbook
- American College of Radiology Appropriateness Criteria
- Clinical Decision Rules / Guidelines
- J Orthop Sports Physical Therapy MSK Imaging feature articles
- https://medpix.nlm.nih.gov/
- http://learningradiology.com/
- http://www.imagingpathways.health.wa.gov.au/

Imaging Content: Clinical Internship

- Three 12 week full time internships in settings throughout the U.S.
  - Imaging experiences are varied.
- Two 8 week on-site clinical experiences.
  - No imaging privileges, have ability to review images and/or reports.

Published Cases

Other Options?

- What happens when,
  - Programs are too small to provide adequate imaging in the curriculum.
  - Not enough faculty to teach extra courses.
  - Faculty doesn't feel they have the expertise to teach the subject matter.
  - Curriculum already too full.
  - Not enough money/space to hire another faculty for imaging content.
  - Or……..

On-line, distance learning options

- Programs have been created to cover MSK imaging content.
- Examples:
  - Medbridge, Seattle, WA, an online medical education program which already has basic imaging content, as well as imaging specific for those interested in OCS and SCS certifications. https://www.medbridgeeducation.com/
  - The University of the Incarnate Word, San Antonio, TX, has created and on-line distance education program in MSK imaging for their tDPT program.
  - Both programs provide testing after modules to evaluate learning.
  - Can these, or systems like these, be integrated into your DPT programs?

MEDBRIDGE

UNIVERSITY OF THE INCARNATE WORD

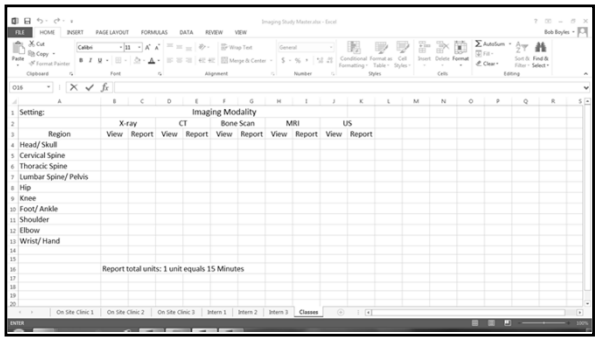
The Legislative Connection

- Experience from Washington State Physical Therapy Association (PTWA).
- 7 year legislative battle to remove the prohibition on spinal manipulation by Physical Therapists.
- Eventually successful in removing prohibition. However to gain state endorsement, PTs must demonstrate:
  - 100 hours of training in differential diagnosis.
  - 250 hours of didactic and practical training related to the delivery of spinal manipulative procedures.
  - 300 hours of supervised clinical experience in spinal manipulative procedures.
  - 150 hours of specific training in spinal diagnostic imaging.

Musculoskeletal Imaging Education in a Doctor of Physical Therapy Program

Boyles RE, Lancaster RL, Muraoka T, Sak-Ocbina WC

As direct access musculoskeletal experts, Physical Therapists (PTs) must have clinical decision making skills to direct care and decide appropriateness for imaging. Evidence shows that, with adequate imaging education, PTs decrease imaging and associated health care costs compared to other primary care providers. Additionally, PTs have been found to be comparable to orthopedic surgeons in their ability to decide appropriateness of imaging. The APTA's goal is to have enough imaging education in entry level programs so that PTs will have imaging privileges. Currently, there are no published studies reporting time spent with musculoskeletal imaging in entry level DPT education. The purpose of this study is to survey the type and amount of imaging education provided in one entry-level DPT program.



Setting:	Imaging Modality									
	X-ray		CT		Bone Scan		MRI		US	
Region	View	Report	View	Report	View	Report	View	Report	View	Report
Head/ Skull										
Cervical Spine										
Thoracic Spine										
Lumbar Spine/ Pelvis										
Hip										
Knee										
Foot/ Ankle										
Shoulder										
Elbow										
Wrist/ Hand										

Report total units: 1 unit equals 15 Minutes

More to come…….

References

- Greathouse DG, et al. The United States Army physical therapy experience: evaluation and treatment of patients with neuromusculoskeletal disorders. J Orthop Sports Phys Ther. 1994 May;19(5):261-6.
- Moore JH et al. Clinical diagnostic accuracy and magnetic resonance imaging of patients referred by physical therapists, orthopedic surgeons, and nonorthopedic providers. J Orthop Sports Phys Ther. 2005a Feb;35(2):67-71
- Moore JH et al. Risk determination for patients with direct access to physical therapy in military health care facilities. J Orthop Sports Phys Ther. 2005b Oct;35(10):674-8.
- Medical Monthly Surveillance Report, Apr 2016. www.afhsc.mil
- Sperier AD et al. Chondrosarcoma of the hip. J Orthop Sports Phys Ther. 2015 Oct;45(10):814.
- Butler AM et al. Diagnosis of a Posterior Cruciate Ligament Disruption after a Motorcycle Accident. Orthopedic Practice. 2015;27(2):130-131.
- Dummar M et al. Blue Cell Synovial Sarcoma in a Patient Presenting with Posterior Thigh Pain and Swelling. Orthopedic Practice. 2015;27(3):191-192.
- American College of Radiology Appropriateness Criteria http://www.acr.org/Quality-Safety/Appropriateness-Criteria

Diagnostic Imaging Education: Large Private University

- Feinberg School of Medicine
- X,XXX Graduate/PostGrad (MD, DPT, PA, MPO)
- Medical School/ Medical Center Affiliation
- Located in Chicago, IL

Feinberg School of Medicine Mission Statement

Our mission is to impact the practice of medicine through discovery and education

NUPTHMS Mission Statement

- To educate doctors of physical therapy and movement scientists in an academic medical environment that integrates research, education, and clinical care.
- To promote optimal health outcomes for our patients and society through the advancement of rehabilitation science and practice.
- To be a diverse faculty and student body producing global leaders in the profession of physical therapy and the science of human movement.

NUPTHMS DPT Curriculum Plan

Year One (foundational year)

- Students concentrate on foundational courses - Anatomy, Kinesiology, Physiology, Psychosocial, Intro to Clinical Decision Making, Neuroscience, Exam and Evaluation, Synthesis
- **Spring Trimester: 1st full time clinical experience – 6 weeks**

Year Two (clinical management year)

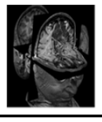
- Students' main focus is to learn all aspects of patient examination, assessment, and treatment design across the lifespan, progressively dealing with more complex multi-systems involvement. Synthesis
  - Imaging content throughout the entire thread
- **Spring Trimester: 2nd full time clinical experience – 6 weeks**

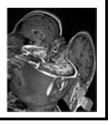
Year Three (clinical experiences)

- **Fall & Winter Trimesters**: 3rd and 4th clinical experiences - 13 weeks x 2
  - "Keeping an eye out on interesting patient cases where imaging featured and results influenced POC"

Imaging Throughout the Curriculum

- **Year One (foundational year)**
  - Anatomy, Kinesiology, Neuroscience, Exam and Evaluation, Synthesis
- **Year Two (clinical management year)**
  - Imaging throughout with support of faculty expertise, research methods, interdisciplinary support, ACR guidelines centered around case examples, complex cases, and synthesis projects
- **Year Three**
  - Clinical experiences





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- http://learningradiology.com/
- http://www.imagingpathways.health.wa.gov.au/
- www.auntminnie.com

Published Cases

Dr. Boyles - Other Options?

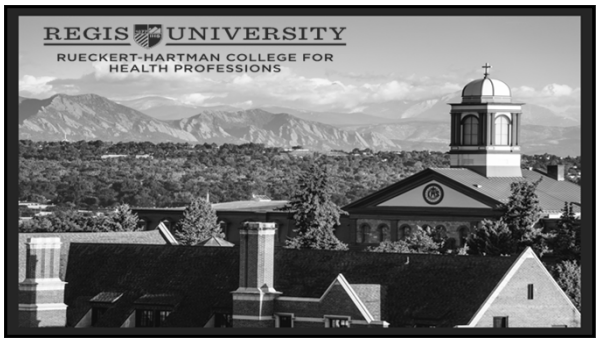
- What happens when,
  - Programs are too small to provide adequate imaging in the curriculum.
  - Not enough faculty to teach extra courses.
  - Faculty doesn't feel they have the expertise to teach the subject matter.
  - Curriculum already too full.
  - Not enough money/space to hire another faculty for imaging content.

Question – Does this provide foundation for 'post-doc', residency, fellowship, internship opportunities with key locations/people on a national *and international* scale?
Question – Online learning opportunities?
what to do with a Radiology report? How do you explain the findings with a patient and how do you use it in clinical decision making?

Imaging Education at a Small Private University

- Ira Gorman, PT, PhD, MSPH
- President, HPA The Catalyst, APTA
- Assistant Dean, Associate Professor
- School of Physical Therapy, Regis University

REGIS UNIVERSITY
RUECKERT-HARTMAN COLLEGE FOR HEALTH PROFESSIONS



Regis University is one of 28 Jesuit colleges and universities (eight have DPT education programs) nationwide.

Rueckert-Hartman College for Health Professions
- Loretto Heights School of Nursing
- **School of Physical Therapy- MS- 1996, DPT 2004**
- School of Pharmacy
- Division of Health Services Education
- Division of Counseling and Family Therapy

Doctor of Physical Therapy Program Mission Statement

The DPT Program is dedicated to providing value-centered education within the Jesuit Catholic tradition. The professional education is extensive in depth and breadth and promotes current best practice across settings. The program is designed to prepare graduates as leaders in the profession who bridge theory and practice in a dynamic health care environment. Special attention is placed on developing an appreciation of the uniqueness of the individual and recognition of how this uniqueness influences health and wellness of diverse populations. Emphasis is placed on developing advocates for the public welfare and common good by changing self-centeredness and other values that compromise a sense of community. Graduates are challenged to integrate Jesuit values with future personal and professional pursuits. Graduates practice autonomously, ethically, and legally as primary care providers. As professionals, graduates are decision-makers and critical thinkers who have a clear understanding of the value of lifelong learning and contributing to the body of knowledge of physical therapy.

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DPT Curriculum

- 1 credit Radiology Course added to DPT curriculum in 2002, Sem IV (Fall of year 2)
- 2 credit Diagnostic Imaging and Procedures- 2005
  - Added NCV/EMG content and lab
  - Added RUSI lab
  - Added Decision making lab
- Transition DPT- 2002-2014
- Fellowship in Manual Therapy- 2003
- RegisCares- onsite faculty practice- 2010

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DPT 712 Diagnostic Imaging and Procedures

- 2 Semester credits- Semester IV
- CREDITED CONTACT HOURS: Lecture:16 Lab: 6 Final Exam :2
- **APPLIED SCIENCE SET OBJECTIVES:**
- **COURSE DESCRIPTION:**
- Introduces the foundations and principles of diagnostic imaging and procedures used in clinical management to include radiograph imaging, CT, RUSI, MRI and electrophysiologic studies. Rationales and guidelines for examination selection are discussed. Performs nerve conduction and needle EMG studies. Examines basic interpretation of diagnostic imaging as well as interpretation of EMG and nerve conduction studies. Laboratory included.

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Course Content

- 8 lectures, 6 labs
- Intro to diagnostic imaging with focus on history, terminology, technology
- Plain Film radiographs- Fracture evaluation
- Plain Film radiographs- spine evaluation
- CT, arthrography, Bone scans, Pet Scans
- MRI
- RUSI
- EMG/NCV
- Clinical decision making, legal implications

- Set foundation for more detailed clinical application in future musculoskeletal and neurological management courses, as well as differential diagnosis course.
- Students will know about the technology, how to communicate and understand reports, how to use ACR and other clinical decision making rules.

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Course Resources

- Textbooks
  - McKinnis LN. (2014). *Fundamentals of Musculoskeletal Imaging*.(4th edition) Philadelphia, F.A. Davis.
  - Malone T, Hazle C, Grey M.(2008) *Imaging in Rehabilitation.* New York City, McGraw Hill.
  - Swain J, Bush K. (2009). *Diagnostic Imaging for Physical Therapists.* St. Louis, Saunders, Elsevier
  - Cornwall M, Nyre E, Harris, J. (2015). I*maging Handbook for Physical Therapists.* Philadelphia, Wolters Kluwer.
- *Articles*
- Electronic Resources

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Course Evaluative Activities

- Quizzes
- Finals Exam – electronic with images
- Article review
- JOSPT assignment- 3 image corner reviews
- Small groups with radiologic professional- MD, PA, NP, RT

REGIS UNIVERSITY
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Colorado Physical Therapy Practice Act

- **12-41-105. Limitations on authority.**
- (1) Nothing in this article authorizes a physical therapist to perform any of the following acts: (a) Practice of medicine, surgery, or any other form of healing except as authorized by the provisions of this article; or
- (b) Use of roentgen rays and radioactive materials for therapeutic purposes; the use of electricity for surgical purposes; or the diagnosis of disease.
- Precedent of rule by omission vs. commission
  - Direct access
  - Ordering or requesting imaging

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