Fall 2013



Clinical Newsletter

Keeping up with the "Digital Natives": Using Technology in the Clinical Environment

If you were raised during a time when telephones were "dialed", and research was done using World Book encyclopedias, then you should consider yourself

a "Digital Immigrant" (a term coined by Marc Prensky about 10 years ago). Today's students, on the other hand, are "Digital Natives", having grown up with cell phones, Google searching and YouTube.

While college didactic (classroom) curricu-

lum is evolving to bridge this gap with the use of online courses, podcasts, blogs/social media, etc, the applications for use of technology in clinical education has been less explored. Consider working with your students to try some of these new resources in the clinical environment:

<u>Apps</u> for iphone/ipad and android devices are now available for just about every conceivable PT content area. Many of these are free or very inexpensive. Those of particular interest include:

- Apps for anatomy/pathophysiology and reference including: "Pocket Body", "Spine (or Knee, Shoulder, etc..) Decide", "Muscle Trigger Points", "Nervous System", "CORE: Clinical Ortho Exam", "iOrtho", "Pocket Lab Values", "Medscape"
- Apps for clinical communication, assessment and documentation including: "Physical Therapy Spanish", "Goniometer", "Home Program Rx", "PT Timer", "Instant Heart Rate", "Get my ROM", Dartfish" (which allows sport-specific

biomechanical analysis), and "Posture Screen"

Another resource to consider are **Pod-**

casts. Recorded lectures and debates from specific PT communities are available for free download including topics from APTA, specific sections of APTA (pediatric, neurology, orthopedic, etc.), PT Talker, and various journals including PT Journal, Journal of Bone and Joint Surgery, Journal of Neurologic Physical Therapy,

etc.

<u>YouTube videos</u> on physical therapy topics, techniques and exercises are out there by the thousands. Some are certainly better (and worse) than others, but a few channels to explore include Physical Therapy Channel, Christopher Johnson PT, Tim Richardson PT, Mike Reinold PT.

Websites, Blogs, and RSS Feeds

are excellent resources. In addition to the APTA (and section-specific) websites, others worth checking out include: MyPhysicalTherapySpace.com, Therapydia.com, PT Think Tank, Real PT Blog, PT Talk: Blogs, and Brigham & Women's Hospital.

On the *BPCC Allied Health Clinical Instructor's Facebook Page* I've started a thread on use of apps and technology in the clinic. Please share information or links to the technologies and resources you've found to be useful in the clinic and for clinical instruction!

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"Tell me about this patient"... A template for Case Study Analysis

Asking your PTA student to review/analyze a patient's initial PT evaluation is an excellent activity for facilitating critical thinking and identifying areas of weakness. Consider prompting the student through either verbal quizzing *or a "homework assignment"* to respond to some of the questions in this template. You might also consider thinking/talking out loud about these questions as you discuss a new patient with the student to role-model putting all of the pieces together.

Patient's Diagnosis/Pathology

- What are the expected *signs & symptoms* of this diagnosis?
- What's the typical mechanism of injury?
- What medical *diagnostic tests* would be used to identify this condition?
- What physical therapy evaluative tests would be used to diagnose the condition?
- What might the *medical (surgical, pharma-cological) management* of the condition include?
- Is this diagnosis an *indication, contraindication, or precaution* for any particular interventions?



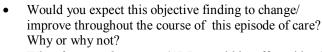
- Are any of the conditions in the patient's past medical history or current medical tests/measures (lab values, imaging, etc..) a consideration in terms of selecting interventions?
- How might the patient's past medical history or current medical tests/measures affect his prognosis or progression toward goals?
- What are the *normal/expected values* (as compared to the patient's) for this particular medical test?

Subjective

- Are any of the patient's subjective statements particularly consistent with (or inconsistent with) his/her diagnosis? With objective findings? With the established goals? With items in the Plan of care?
- What's the implication for this particular subjective statement? How would/should you interpret the comment?
- Are there any *discharge planning* considerations prompted by the patient's subjective statements?

Objective Assessments/Examination Findings:

- Connect the dots.... Which objective tests/measures support (are consistent with) the patient's diagnosis/pathology? Which support the presence of the established goals? Which correlate with particular items in the POC?
- Are there objective findings that are particular indications (or contraindications) for any interventions?
- Why did the PT select this/these particular tests and measures? What in the history or subjective report led the PT to choose that assessment? What is the test/measure designed to identify?
- What is the "normal" value for that test/measure as compared to the patient's?
- What particular *anatomic structure* (muscle, ligament, capsule, peripheral nerve, etc..) is/would affect that test or measure?
- Is this a test/measure that a PTA would typically continue to *reassess on a regular basis*? Why or why not?



- What functional activities/ADLs would be affected by the impairment identified by this test/measure? Would modifying the environment or technique for performing the ADL allow the task to occur more easily?
 - Based upon the history, subjective reports, and objective findings, do you think this patient's injury/healing is in the *acute*, *subacute*, *or chronic stage?*

PT Evaluation/Assessment

- What particular findings in the examination and tests/measures do you think the PT referenced when developing their "PT diagnosis"/Assessment?
- What factors influenced the PT's evaluation of the patient's rehab potential/prognosis? Are there resources available for addressing/improving any of those factors?
- In comparing 2 patients in the caseload with similar medical diagnoses, why does this patient have a better/worse rehab potential/anticipated outcome?

Goals

- Connect the dots... what findings in the initial examination support the presence of each goal? What items in the plan of care are intended to specifically address each goal?
- Brainstorm a variety of interventions (aside from just those specifically listed in the POC) that might be used to address Goal #_____. Why would those interventions be appropriate?
- Identify some interventions that would be *inappropriate* for addressing Goal #_____. Why would those interventions be inappropriate?
- What interim tests/measures could be taken to track patient progress toward Goal #_____?

Plan of Care

- Give a *rationale* for each item listed in the POC.
- Identify any precautions or contraindications for items listed in the POC.
- *Prioritize* items in the POC in order of importance for this treatment session.
- Discuss the appropriate sequencing of items in the POC for this treatment session.
- Will communication with other members of the healthcare team be necessary/important in the implementation of this POC?
- Are there modifications to the POC that you anticipate the PT will need to make as this patient progresses?

Discussing (and asking your student to discuss) some of these questions as you review the PT evaluation will help them see and appreciate the process of critical thinking in the clinical environment. It might also help you (as the clinician) recall the rationale for decisions you make on a daily basis that have become almost second-nature and automatic.



Fall Crossword Puzzle



Hey Clinical Instructors!! Try this crossword just for fun but also to get an idea of what didactic content BPCC PTA students are covering during the <u>fall semester</u> of the PTA Program. Challenge your PT & PTA co-workers to brush the brain cobwebs off of some of this information to help you finish the puzzle! Then feel free to quiz

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Across

- 2. abbreviation for the most commonly sprained ligament in the body
- 4. when utilizing the _____ scale (also referred to as the Rate of Perceived Exertion), a patient is typically instructed to work at a level 12-14
- 5. muscle that acts as a hip external rotator when the hip is flexed less than 90 degrees, but an internal rotator when the hip is flexed more than 90 degrees
- 10. term for the device used to collect waste from a surgically produced opening in the ab-
- 11. parameter that should be adjusted when changing from thermal to non-thermal ultrasound
- 12. peripheral nerve that innervates the hip adductor group
- 14. completing full range of shoulder abduction in sitting against no added resistance is equivalent to this MMT grade
- 21. largest bursa in the body; may become inflamed with overuse of the hip flexors
- 23. movement most limited in the capsular pattern for the hip
- 24. a knee flexion ROM measurement in this position may be limited/affected by passive insufficiency of the rectus femoris
- 25. according to Wolfe's law, removing stress (WB or muscle contraction) from bone results in increased activity in these cells
- 26. of conduction, convection, or conversion, the type of heat transfer occurring during the use of fluidotherapy
- 27. testing the C8 dermatome would involve assessing sensation on the _____ side of the hand/forearm

Down

- 1. A patient who is able to complete 75% of a task (with 25% assist) should be documented as requiring _____ assist for the activity.
- 2. when measuring trunk rotation using a goniometer, the moving arm should align with the:
- 3. one of the special tests used to identify a knee meniscus tear
- 6. brace commonly worn by a patient s/p clavicle fracture
- 7. ligament surrounding radial head that is involved with "nursemaid's elbow"
- 8. Adson's, Allen's and Roos tests are all used in the diagnosis of this condition
- 9. posterior glide mobilization of the talus or anterior glide mobilization of the distal tibia would be used to increase this motion
- 13. also known as platelets, this component of blood assists with clotting
- 15. MMT of hip extension in prone with the knee flexed assesses the strength of this muscle 16. "squinting patellae" would be
- an indication of this femoral alignment problem
- 17. during this phase of wound healing capillary buds and granulation tissue begin to fill the wound bed
- 18. type of TENS in which the pulse frequency is high, and the pulse duration is low/short
- 19. "disease" caused by repetitive traction on the tibial tuberosity (most often in young athletes)
- 20. a patient with a systolic BP 120-139 and a diastolic BP 80-89 would be classified as:
- 22. the most lateral layer of the erector spinae group



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PTA PROGRAM UPDATE-FALL 2013

Program Admissions: 2013-2014 Class Statistics

Number of Qualified Applicants: 96

Number Selected: 20

Application selection formula was based on:

50% - Academic Score

• Science prerequisites weighted more heavily than non-sciences

50% - Nonacademic Score

- Observation rating form scores (completed by PT/PTAs)
- Academic Instructor rating form scores
- Interview score (written and oral components)

Changes for 2014-2015 selection process:

- Addition of standardized test called the "Work-Keys" as another measure of critical thinking
- Requirement that students meet with advisor and complete portion of application packet prior to beginning observation hours

Way to Go!!

The BPCC PTA Program is <u>very fortunate</u> to have a large community of skilled and dedicated clinical instructors who not only model excellent technical skills but who also devote time to and energy to <u>teaching</u>. PTA students are asked to give feedback to the question "What did your CI do well to facilitate learning?" at the end of each rotation — See just <u>some</u> of the great things our CI's are out there doing!!

"At the beginning of the rotation she made Xerox copy of the Master List from my PTA MACS and highlighted the skills I should have the opportunity to work on during the rotation. She then made me responsible for looking for and asking for opportunities to practice those skills. It really helped keep me stay organized and on track."

Re: Latonya Brown, PT Overton Brooks VAMC

"My CI arranged for me to practice communication with other staff on a regular basis (reporting to PT for weekly face to face conference, checking with nursing and other disciplines, etc). I felt much more confident by the end of that rotation with my communication skills."

> Re: Amber Johnson, PTA Promise Rehabilitation Hospital

"Karl was so energetic and passionate about patient care and about teaching! His enthusiasm kept me motivated to learn and excited about becoming part of this profession!"

Re: Karl Kaufman, PT Glory Physical Therapy



"My CI allowed me to view patient goals and brainstorm ideas before the patient arrived. She was always willing to answer any questions I had and explained in detail. My CI made this a fun learning experience while also role modeling how to show professionalism."

Re: Tiffany Engle, PT Melanie Massey Physical Therapy

"She was really good at giving me regular constructive feedback in a non threatening way. She was honest in her feedback

but in a way that made me feel comfortable and not overly critiqued. She also quizzed me a lot on why I should/should not select certain pt interventions which helped me understand the rationale for those exercises much better."

Re: Leah Masog, PTA Guest Care Rehab

"He allowed me to implement the POC and problem solve on my own to adjust the exercises and patient education to fit each patient's needs."

Re: Adam Brewer, PT Brewer Physical Therapy

"After seeing a patient, my CI would ask how I would modify the patient's intervention during the following visit and/or if I thought there were any questions or recommendation that should be made to the PT."

RE: Cheryl Lewis, PTA Overton Brooks VAMC

"She was such a positive role model and strived to make sure I progressed to being able to implement the POC and handle a full case load as though I was a working PTA at their facility."

RE: Ashley Koch, PT Willis-Knighton Health System