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The Lost Art

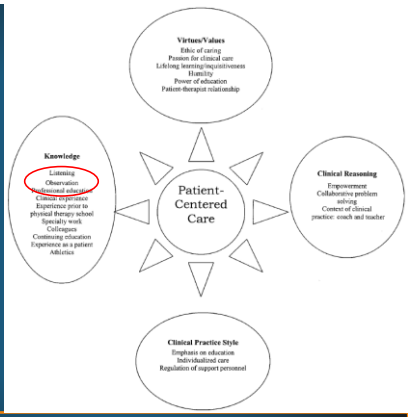
SUBJECTIVE EXAMINATION/CLINICAL REASONING

Orthopaedic Manual Physical Therapy Series
Charlottesville 2017-2018

Eric Magrum DPT OCS FAAOMPT

Interrogate with Empathy

Patient's Experience of symptoms and impact on life



Patient-Therapist Interaction Influences in Musculoskeletal Physical Therapy

- Positive PT/Patient interactions linked with:
  - Reduced Pain
  - Reduced Disability
  - High treatment satisfaction
- 3 Components:
  - PT/Patient agreement on Goals
  - PT/Patient agreement on Interventions
  - PT/Patient affective bond

Phys Ther. 2016

Patient-Therapist Interaction Influences in Musculoskeletal Physical Therapy

What Influences Patient-Therapist Interaction?	
Physical therapist interpersonal and communication skills	1. Listening 2. Empathy 3. Friendliness 4. Encouragement 5. Confidence 6. Nonverbal communication
Physical therapist practical skills	1. Patient education 2. Physical therapist expertise and training
Individualized, patient-centered care	1. Individualized care 2. Taking patient opinion and preference into consideration
Organizational and environmental factors	1. Time 2. Flexibility with patient appointments and care

Phys Ther. 2016

Goals of the Subjective Exam

1. Gather Information
2. Develop Therapeutic Relationship
3. Communicate Information

Lipkin M 1995

Successful Consultation

1. Patients perception of being taken seriously
2. Given an understandable explanation of the pain
3. Applying Patient-Centered Care
4. Reassurance
5. Being told what can be done

Laerum E J Rehab Med 2006

Most important Communication skills

- Ability to allow the patient to speak without interruption
- Ability truly hear what the patient is trying to say

Jackson C 2006

Measuring Verbal Communication in Initial Physical Therapy Encounters

- Providers (49.5%) spoke more than patients (33.1%)
- Little time discussion emotions
- More experienced clinicians spent more time :
  - "History/background probes"
  - Advice/suggestions
  - Talking concurrently
  - Interrupting patients

Volume 93 Number 4 Physical Therapy

Subjective Evaluation

- Establish rapport
- Build confidence in PT as facilitator of care
- Systematic
- Gain information about functional status and limitations
- Guide Objective/Physical Exam

Develop working hypothesis about cause(s) of problem

Subjective Evaluation

- **Sequential, systematic and repeatable** to identify essential elements for further examination
- Framework for efficiency, comprehensiveness, consistency

Subjective Examination

Age:_____ Gender:_____ Occupation:_____

Onset:_____
(Traumatic/Non-Traumatic, Sudden/Gradual, Known/Insidious)

Mechanism of Injury:_____

Direction of Impact:_____

Onset of Symptoms (Immediate/Gradual):_____
(Dizziness, Vision Changes/Deficits, Hearing Changes/Deficits)

Pain, Parasthesia, Stiffness, Weakness, Loss of Motion, Loss of Function

Nature:_____

Location:_____
(Local/Diffuse, Intermittent/Constant, Radiating, Radicular)

Progression:_____
(Worsening/Improving/No Change, AM vs PM)

Aggravating Factors:_____

Relieving Factors:_____

Severity:_____
(Limit/Prevent Normal Activity, Sleep Disturbance)

Irritability:_____

Amount of Activity:_____

Fast/Slow Reduction of Symptoms:_____

Rest (Length of time required):_____

Activity Level (Pre/Post Injury):_____

Previous Treatment:_____
(Improvement/No Improvement following treatment)

Special Tests (MRI, X-rays, Scans, etc):_____

Reliability of the ECHOWS Tool for Assessment of Patient Interviewing Skills

Volume 96 Number 4 Physical Therapy

E: Establish Rapport
1. Introduction/greeting
2. Orients patient to the flow of the visit
Number of *Observed* items for E__/2

ECHOWS

A Physical Therapy Patient Interview Assessment Tool

Name/Number:_____
Date: __/__/____

C: Chief Complaint
1. Reason for visit: (chief complaint, including location of symptoms)
2. Functional status in various roles and realms (eg, home, work, school, social)
3. Patient's goals and expectations for treatment and prevention
4. History of chief complaint
5. Location/behavior of symptoms: aggravation, alleviation, nature (includes intermittent or constant, description, how long symptoms last, quantification of symptoms, 24-h presentation)
6. Previous examination/tests/interventions for chief complaint

H: Health History
1. Review of constitutional symptoms (fatigue, weakness, sweats, night pain, weight loss, confusion)
2. Review of body systems
3. Surgeries (including type and date)
4. Allergies (including latex and to drugs)
5. Other illnesses/health conditions
6. Medication: prescription and OTC/herbals
7. Health habits: substance use (caffeine, tobacco, alcohol) and exercise
8. Abuse history (family violence, sexual, physical, and/or emotional abuse)
9. Pertinent family medical history
Number of *Observed* items for H__/9
O: Obtain Psychosocial Perspective
1. Patient perception of chief complaint
2. Family, social, and personal circumstances
3. Environmental barriers/accommodations

W: Wrap-up
1. Asks patient about additional questions/concerns
2. Transition into physical exam (gives clear information about next steps of the process)

S: Summary of Performance
1. Attends to patient comfort and privacy
2. Logical sequencing/follows an organized format
3. Time management/keeps the interview on task
4. Questioning strategies (eg, avoids leading questions, avoids duplication, explains rationale for questions, all questions are relevant)
5. Verbal communication strategies (avoid jargon and repetitive verbal habits ["umm"], checks for patient understanding, rephrases/summarizes, uses transition statements)
6. Documents without interfering with the flow of the interview/not distracting
7. Attentive listening (interrupts the patient only when redirecting is needed)
8. Respect and interest toward patient; makes a personal connection
9. Nonverbal behavior (eg, distance and eye contact are comfortable for patient; responds to nonverbal patient cues)
10. Social skills (eg, empathy, poise, handles embarrassing/sensitive topics, accepts and legitimizes patient's feelings and beliefs)

Patient Intake Forms

Opening clinical encounters in an adult musculoskeletal setting

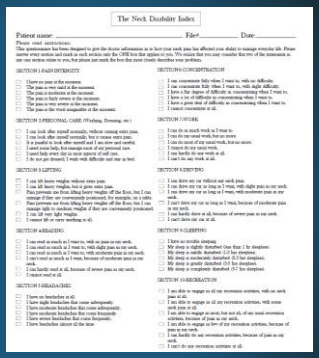
Open Focused Question

- "Do you want to just tell me a little bit about (your 'problem presentation') first of all?"

Manual Therapy 19 (2014) 306–310

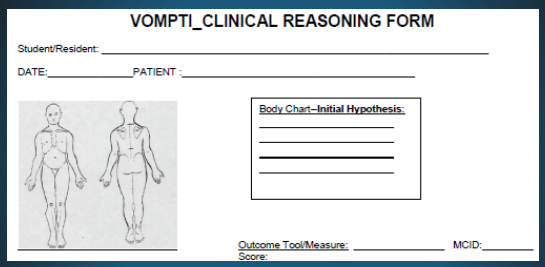
Outcome Measures

NDI
Oswestry
FABQ
Quick DASH
LEFS
FAAM


The Neck Disability Index

Distribution of Symptoms

- Use of Body Chart - review with pt
- Precise recording
- Verbal and Non-verbal responses
- Recognize patterns
- Intermittent vs constant nature

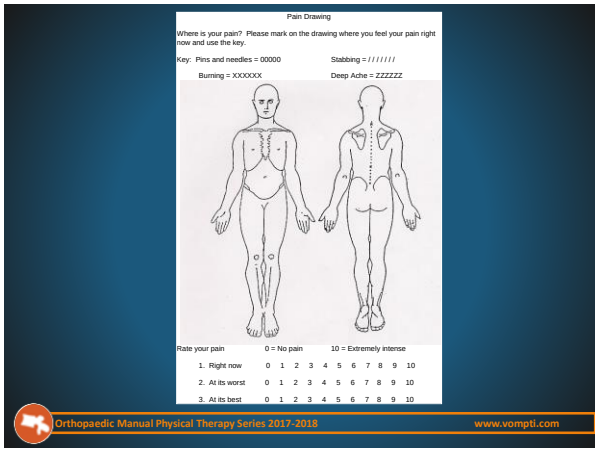

VOMPTI_CLINICAL REASONING FORM

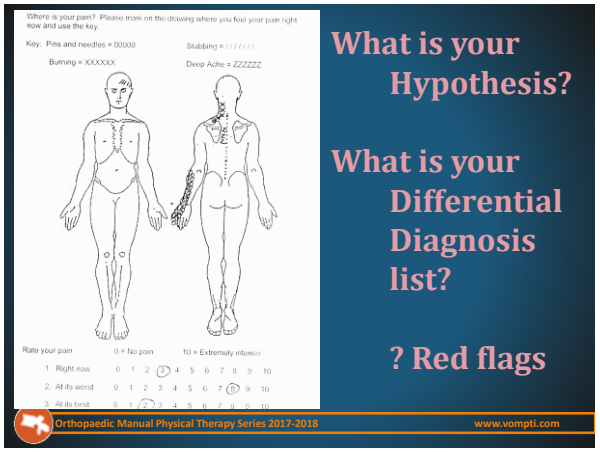
Student/Resident: _____

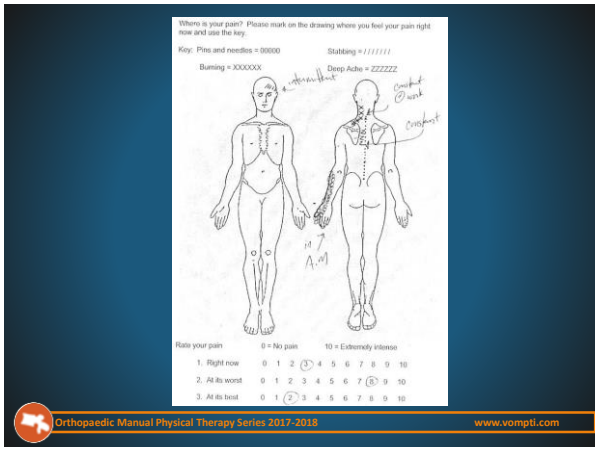
DATE:_____PATIENT :_____

Body Chart–Initial Hypothesis:

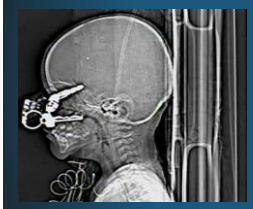
Outcome Tool/Measure: _____ MCID:_____
Score:







Pain Characteristics



- Specific, sharp, immediate reproduction
  - Joint
- Deep, dull, aching
  - Disc, bone, muscle
- Sharp shooting, lancinating, painful paresthesia, non specific
  - Neural tissue

Behavior of Symptoms

- ** Aggravating Factors **
- Easing Factors
- Behavior over 24 hrs
- Progression of Sxs

Aggravating Factors

- What specific postures/activities reproduce which specific complaints?
- What is the temporal component to specific complaints?
- What specific activities/postures worsen complaints?

Easing Factors

- What specifically does the patient do to relieve sxs?
- How long does it take to reduce those sxs?

History

- Of the present episode
- Of previous episodes
- Of related medical history

Subjective Evaluation

- Date of injury
  - Recent; first time; recurring injury?
  - If recurring, is it similar to previous injuries

Mechanism of Injury

- Traumatic
  - Specific Mechanics
    - (MVC) Direction of impact
    - On Field mechanics
    - How soon for onset of specific sxs
    - Noise, swelling, bleeding
- Insidious
  - Change in activity level/job
  - Repetitive stress
  - DJD
  - Postural dysfunction

Treatment

Individual Expectation: An Overlooked, but Pertinent, Factor in the Treatment of Individuals Experiencing Musculoskeletal Pain

Joel E. Bialosky, Mark D. Bishop, Joshua A. Cleland

Physical Therapy, Volume 90, Issue 9, 1 September 2010, Pages 1345–1355,

Patient Expectations/Placebo

- Expectation may serve as a significant prognostic indicator for individuals with musculoskeletal pain conditions
- The literature suggests practitioners may take steps to maximize the benefit of expectation in their daily practice.

Previous Conditions

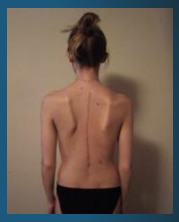
- Similar problem in the past
- How was it treated?
- Prior condition resolved?
- Progression of previous episodes

Systems Review

- Medical screen questionnaire to guide
- HTN, Diabetes, history of CA, cardiovascular status
- Conditions present which would predispose to musculoskeletal injury
- Conditions present which would influence treatment

Past Medical History

- Surgical history
- Medical conditions
- Orthopedic injuries
- Fractures
- History of major trauma



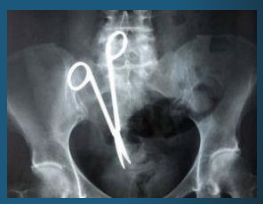
Medications

- Predispose musculoskeletal dysfunction
- Correlate with Medical History
- ??? Contraindicate treatment
  - Corticosteroids- chronic inhaler use
  - Anticoagulants
  - Narcotics

Diagnostic Evaluation

- MD referral - general practitioner or specialist
- Blood work/labs
- Radiology
- EMG/NCV

? Results



Special Questions

- Bilateral symptoms - esp. LQ with cervical pain (Central cord compression)
- Unexplained weight loss (CA)
- Severe night pain (CA)
- Dizziness, blurred vision, tinnitus, nausea/vomiting, Severe HA (CAD)
- Saddle numbness, bowel/bladder changes (Cauda equina syndrome)

Occupation

- Work duties
- Prolonged positions
- Repetitive tasks
- Is patient on light duty/work restrictions?
- General sense of job satisfaction

Activity Level

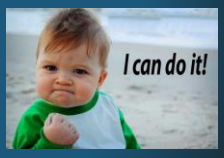
- Recreation level
- Daily Exercise
- Limitations secondary to sxs

Develop Patient Centered

Functional goals

- Facilitate Rapport
- Functional Goal setting
- Predictive of favorable outcome
- Improve compliance
- Self-efficacy
  - Extent or strength of one's belief in one's own ability to complete tasks and reach goals

"What are your goals from seeing me?"



Shared decision-making in back pain consultations: an illusion or reality? Eur Spine J (2014) 23

Table 1 The core components of shared decision-making [4]

Identifying and clarifying the issue
Identifying potential solutions
Discussing options and uncertainties
Providing information about the potential benefits, harms and uncertainties of each option
Checking that patients and professionals have a joint understanding
Gaining feedback and reactions
Agreeing a course of action
Implementing the chosen treatment
Arranging follow-up
Evaluating outcomes and assessing the next steps

Subjective *Asterisks* Signs/Symptoms: (Aggravating/Easing factors, Description/location of symptoms, Behavior, Mechanism of injury):

* Identifies points to be used in re-assessment of patient progress

* Teaching process to mark informative and significant words

* Throughout exam as part of hypothesis generation

Probable Structures

- Joints in the painful region
- Joints which refer pain to the painful region
- Muscles in the painful region
- Muscles which refer pain to the painful region
- Nerves in the painful region
- Nerves which refer pain to the painful region

Possible Structures

- Other contributing factors
- Secondary Causes

- "Cause of the Cause"
  - Posture
  - Muscle imbalance
  - Obesity
  - Hyper mobility/instability
  - Dysfunction proximal/distal

STRUCTURE at Fault:

Joints in/refer to the painful region	**Myofascial tissue** in/refer to the painful region	**Non Contractile tissue** in/refer to the painful region	**Neural tissue** in/refer to the painful region	Other structures that must be examined – **non MSK**

Primary HYPOTHESIS after Subjective Examination: _____

Differential List: (List in ranking order to screen/clear - Rule out)

_____

_____

_____

_____

Sensitivity – SNNout : (-) Rule OUT

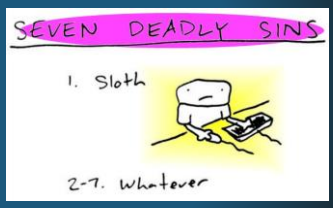
(-) Likelihood ratio

Specificity – SPPin : (+) Rule IN

(+) Likelihood ratio

Evaluating Subjective Information:

- Severity
- Irritability
- Nature
- Stage



Does the examination need to be modified?

Rate your assessment of Severity & Irritability
Justify your assessment with examples from the Subjective Exam &/or Objective Exam

	Non	Min	Mod	Severe
Severity				
Irritability				

- Do symptoms prevent ADLs
- Sleep disturbed
- Central or radicular complaints
- Sensation or Motor deficits

Rate your assessment of Severity & Irritability
Justify your assessment with examples from the Subjective Exam &/or Objective Exam

	Non	Min	Mod	Severe
Severity				
Irritability				

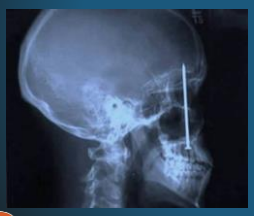
- Disproportionate to activity level ?
  - How much activity to provoke- vigor
- Slow to reduce following exacerbation
  - What/How long to reduce
- Peripheralization of sxs with active mvt
  - Severity of sxs – degree and quality

Respect Irritability

Stage and Stability

Stage & Stability?

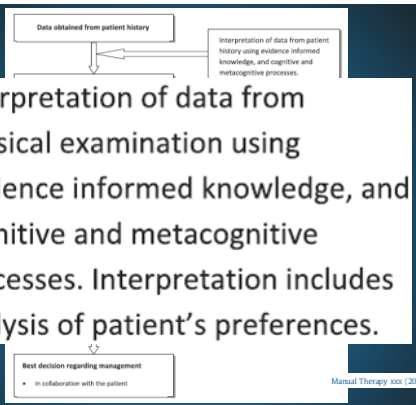
- Acute Subacute Chronic Acute on chronic
- Stable Improving Worsening Fluctuating Red Flags



Planning the Objective Exam

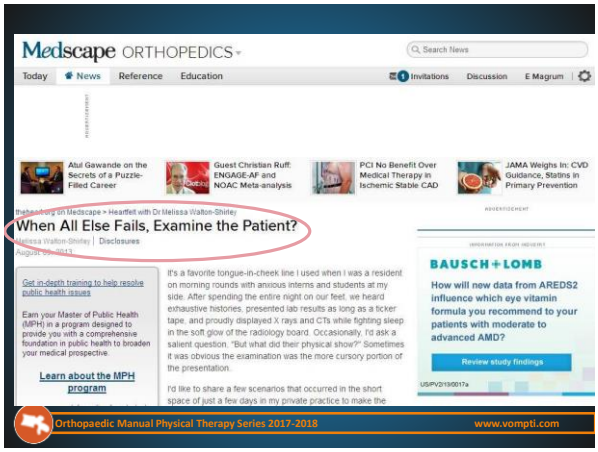
Develop a working Hypothesis

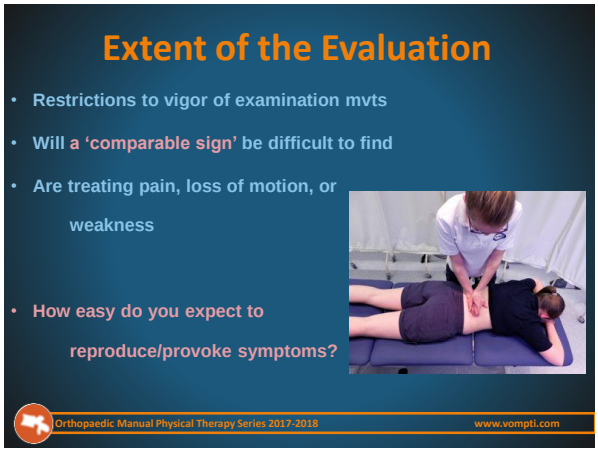
- Use of SINS as framework
- Determine examination extent and vigor
- Structures to be examined
- Neurological Exam
  - segmental/peripheral/central

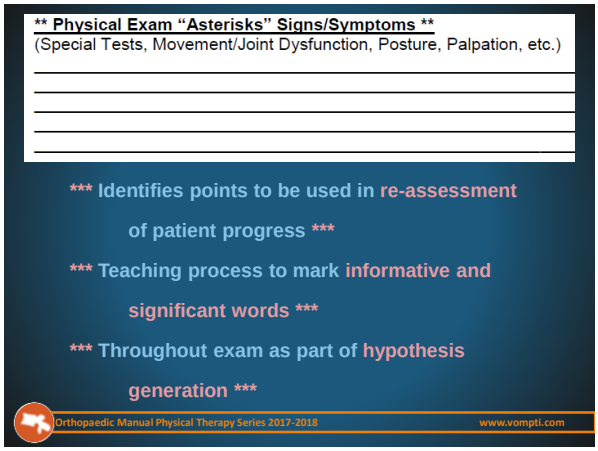


Interpretation of data from physical examination using evidence informed knowledge, and cognitive and metacognitive processes. Interpretation includes analysis of patient's preferences.

Manual Therapy xxx (2013) 1–7







'Making Sure the Features Fit'

- Do the features of the history fit with the current behavior of the symptoms?
- Does the behavior of the symptoms fit with a recognizable syndrome or pathology?
- ? Red/Yellow flags for Referral

Documentation of Red Flags by Physical Therapists for Patients with Low Back Pain

Pamela J. Leerar, PT, DHSc, OCS, COMPT
William Boissonnault, PT, DHSc, FAAOMPT
Elizabeth Domholdt, PT, EdD, FAPTA
Toni Roddey, PT, PhD, OCS, FAAOMPT

The Journal of Manual & Manipulative Therapy
Vol. 15 No. 1 (2007), 42–49

TABLE 1. Red flags item description and rationale

Red Flag Item	Description	Rationale
Trauma	History of minor or major trauma, motor vehicle accident, fall, strenuous lifting	Possible fracture, especially in an older or osteoporotic patient
Age	50 years or more	Increased risk of cancer, abdominal aortic aneurysm, fracture, infection
History of cancer	Past or present history of any type of cancer	History of cancer increases the risk of cancer-causing low back pain. Back pain may be caused by metastic tumors arising from the kidney, thyroid, prostate, breast, lung
Fever, chills, night sweats	Fever over 100 degrees Fahrenheit, a sensation of being cold, waking up sweating, temperature changes at night	Constitutional symptoms may increase the risk of infection or cancer
Weight loss	Unexplained weight loss of over 10 pounds in 3 months, not directly related to a change in activity or diet	May be indicative of infection or cancer
Recent infection	Recent bacterial infection such as a urinary tract infection	Increases the risk of infection

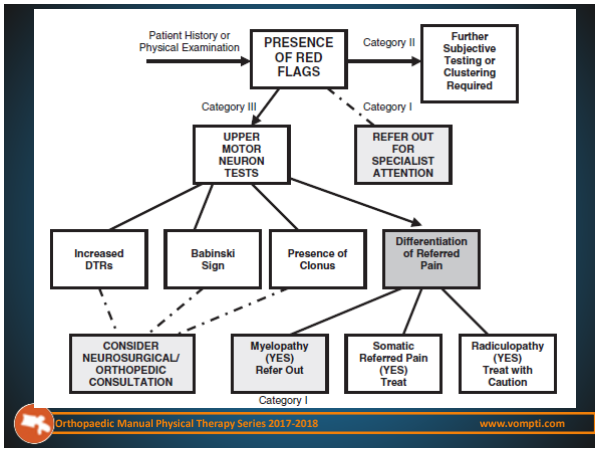
TABLE 1. Red flags item description and rationale

Red Flag Item	Description	Rationale
Immunosuppression	Immunosuppresssion resulting from a transplant, intravenous drug abuse, or prolonged steroid use	Increases the risk of infection
Rest/night pain	Pain that is not relieved with rest or awakens a patient at night, unrelated to movement or positioning	Increases the risk of cancer, infection, or an abdominal aortic aneurysm
Saddle anesthesia	Absence of sensation in the second-fifth sacral nerve roots, the perianal region	Cauda equina syndrome
Bladder dysfunction	Urinary retention, changes in frequency of urination, incontinence, dysuria, hematuria	May indicate cauda equina syndrome or infection
Lower extremity neurological deficit	Progressive or severe neurological deficit in the lower extremity	May indicate cauda equina syndrome

Medical Screening for Red Flags in the Diagnosis and Management of Musculoskeletal Spine Pain

Phillip S. Sizer Jr, PT, PhD, OCS, FAAOMPT*;
Jean-Michel Brismée, PT, ScD, OCS, FAAOMPT*;
Chad Cook, PT, PhD, MBA, OCS, COMT†

Pain Practice, Volume 7, Issue 1, 2007 53–71



Category I: Factors that require immediate medical attention

- Blood in sputum
- Loss of consciousness or altered mental status
- Neurological deficit not explained by monoradiculopathy
- Numbness or paresthesia in the perianal region
- Pathological changes in bowel and bladder
- Patterns of symptoms not compatible with mechanical pain (on physical examination)
- Progressive neurological deficit
- Pulsatile abdominal masses

Category II: Factors that require subjective questioning and precautionary examination and treatment procedures

- Age > 50
- Clonus (could be related to past central nervous system disorder)
- Fever
- Elevated sedimentation rate
- Gait deficits
- History of a disorder with predilection for infection or hemorrhage
- History of a metabolic bone disorder
- History of cancer
- Impairment precipitated by recent trauma
- Long-term corticosteroid use
- Long-term worker's compensation
- Nonhealing sores or wounds
- Recent history of unexplained weight loss
- Writhing pain

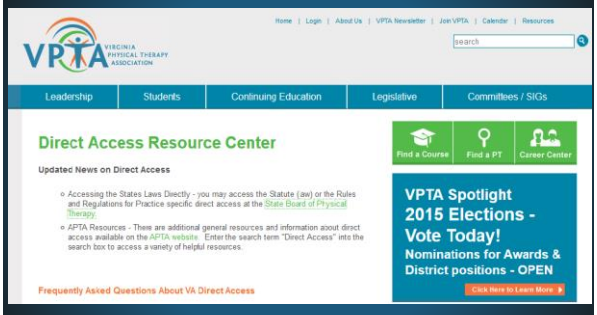
Category III: Factors that require further physical testing and differentiation analysis

- Abnormal reflexes
- Bilateral or unilateral radiculopathy or paresthesia
- Unexplained referred pain
- Unexplained significant upper or lower limb weakness

Direct Access Decision Making

- Treat
- Treat and Potentially Refer
- Refer out

http://www.vpta.org/secure/legislative/directaccess.cfm



Direct Access Compared With Referred Physical Therapy Episodes of Care: A Systematic Review

Heidi A. Ojha, Rachel S. Snyder, Todd E. Davenport

Data Synthesis. There is evidence across level 3 and 4 studies (grade B to C CEBM level of recommendation) that physical therapy by direct access compared with referred episodes of care is associated with improved patient outcomes and decreased costs.

Conclusions. Physical therapy by way of direct access may contain health care costs and promote high-quality health care. Third-party payers should consider paying for physical therapy by direct access to decrease health care costs and incentivize optimal patient outcomes.

PHYS THER. 2014; 94:14-30.

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

William G. Boissonnault, Mary Beth Badke, Jane Megan Powers

Physical Therapy

January 1 2010, Volume 90, Issue 1

Identify "gap" in knowledge.

	Patient or Problem	Intervention	Comparison Intervention	Outcomes
Tips for Building	Starting with your patient, ask "How would I describe a group of patients similar to mine?" Balance precision with brevity	Ask "Which main intervention am I considering?" Be specific	Ask "What is the main alternative to compare with the intervention?" Again, be specific	Ask "What can I hope to accomplish? Or What could this exposure effect?"
Example	In patients with lateral epicondylitis....	Would adding manipulation to modalities or injection alone....	When compared to modalities or injection alone	Reduce the number of visits to return to pain free function.
Your Patient				

Article Reviewed: _____

What did you learn from article to apply to clinical case?

Expert Practice in Physical Therapy

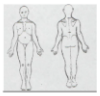
- 4 Dimensions:
  - Dynamic, multidimensional knowledge base that is patient-centered and evolves through therapist reflection
  - Clinical reasoning process that is embedded in a collaborative, problem-solving venture with the patient
  - Central focus on movement assessment linked to patient function
  - Consistent virtues seen in caring and commitment to patients.

Jensen GM PT 2000

VOMPTI_CLINICAL REASONING FORM

Student/Resident: _____

DATE: _____ PATIENT: _____



Body Chart--Initial Hypothesis:

Outcome Tool/Measure: _____ MCID: _____

Score: _____

SUBJECTIVE EXAM

** Subjective Asterisks Signs/Symptoms **

(Aggravating/Easing Factors, Description/Location of symptoms, Behavior, Mechanism of injury)

STRUCTURE at Fault:

Joints m/refer to the painful region	Myofascial tissue m/refer to the painful region	Non Contractile tissue m/refer to the painful region	Neural tissue m/refer to the painful region	Other structures that must be examined -- non MSK

Primary HYPOTHESIS after Subjective Examination: _____

Differential List: (List in ranking order to screen/clear - Rule out)