

Clinical Reasoning Mentoring KEY

PT DIAGNOSIS - Use Guide/ICF/CPG language (not ICD-9 codes) to categorize the underlying problem. List the top 1 or 2 PT Dx and go 1 step beyond the categorization.

Example 1: Impaired motor strength & endurance limiting control of loaded and prolonged voluntary movements and postures.

Example 2: Impaired joint and associated myo-fascial mobility leading to obstruction of normal joint mechanics and progressive loss of joint integrity.

Example 3: Impaired movement coordination leading to excessive spinal movement and stability.

CHIEF COMPLAINT - Considering the patients values/priorities, what is their main symptom and/or loss of function. Example: "I can no longer participate in fitness activities, and pain with sitting is severe."

PIP – Patient Identified Problem. This is often centered around pain and/or function.

CC – Complications / Core Morbidities. Pre-existing medical condition or a medical condition that arises during plan of care that causes an increase in the utilization of rehab resources or that may prolong and/or complicate discharge.

MOI - Mechanism of Injury. The primary cause of injury. The MOI is critical for ruling in whether this is a mechanical (treat) or non-mechanical presentation (refer). This could be traumatic (macro/micro), a combination, insidious (no explanation), or s/p surgery.

NATURE - This is addressed the **primary** force that is leading to the tissue lesion. Often a combination of forces are involved so pick the primary force as well the tissue

Compression

Forces compressing (ex. impingement)

Tension

Forces separating (ex. ligament/muscle sprain/strain)

Shear

Combination of compression and shear (ex. glenohumeral instability)

Neuro (non MSK - musculoskeletal)

Some conditions such as MS, stroke, traumatic brain injury, spinal cord injury, phantom limb pain, and complex regional pain syndrome may all present with pain which fits best in this category

Cognitive

Mediated by psychosocial factors. Examples include: kinesiophobia, fear avoidance, or secondary gain issues (as seen with positive Waddell's signs).

PATHO-ANATOMIC HYPOTHESIS – What discrete anatomical structure is generating the primary complaint of pain? Some conditions have multiple pain generators so include the key ones for the condition you are treating. Of course this is not always possible to identify the tissue, it's a "hypothesis" for a reason. Examples: cervical radiculopathy of C6, sacroiliitis on the R, patellar tendonopathy, etc. This is NOT impairment based. What exact anatomical structure(s) are creating pain? This is NOT why the patient hurts, only WHAT hurts. Often, the physician will give you an accurate "Anatomic Diagnosis" if your lucky. Of course, the exact anatomical structure creating symptoms or causing disability is not always known. The options to choose from include "Contractive vs. Non-contractile" and "Intraarticular vs. extraarticular".

SEVERITY – Intensity of functional loss for the individual.

Functional forms are primarily used to will help determine the severity of the condition. Understanding the limitation of these scales must be considered as it is entirely subjective. It should also be kept in mind that tools such as the PSFS (Patient Specific Functional Scale) may have more validity for unique problems that a

ren't captured on standard outcomes tools or for those patients that are high functioning in their ADL's but may have a critical component of their life limited by their pain and/or dysfunction. For example the professional painter that has no other ADL limitations but can no longer generate an income secondary to the problem.

APTA anticipates using severity as a judge for reimbursement. Here is a table of APTA rough draft on determining severity. https://docs.google.com/document/d/1ouCWk6P1aJMkHd_FZ2UA3xfvPFk3Zk_c7EJI44ocgoE/edit?pli=1

IRRITABILITY - The ease of provoking and eliminating symptoms. The irritability guides your examination strategy and intervention strategy and tactics. The VAS (or audible pain scale of 0-10) is very helpful when determining the irritability although this does have limitations.

High (Red Light)

Very easy to exacerbate with poor tolerance for tissue loading. Mechanical examination can be confusing and misleading. The assimilation of painful special tests will continue to erode the reliability and validity of the biomechanical examination. This patient's optimal loading zone has narrowed substantially. Key movements, and relevant activities are limited significantly. Symptoms may come on immediately, or may be severe the next day. The symptoms generally have a lingering component secondary to the chemical involvement at the tissue level. This patient requires tactics that carefully control dosage, generally with education and off-loading principles being a cornerstone of early intervention. To increase the tissue tolerance and optimal loading zone, steroids, NSAIDs, and modalities may be indicated.

Moderate (Yellow Light)

This condition may be relatively easy to exacerbate with testing. The symptoms are also more easy to abate and have a clearer mechanical response with less lingering (chemically oriented) symptoms. This patient will respond much faster than the patient with high irritability to mechanical treatment directed at restoring normal mechanics. Therefore, the examination strategy can be more vigorous and the bio-mechanical examination will reveal more clear information. Often, this patient has a combined mechanical/chemical pain generator but is mechanical dominant and therefore appropriate mechanical protective strategies can effectively reduce symptoms. They may have a partial response to anti-inflammatories and inflammation based treatments, but this will typically not be the most effective intervention for this patient.

Low (Green Light)

This patient is difficult to provoke, and when symptoms are provoked can be resolved easily, indicating limited chemically mediated symptoms. The examination strategy should be aggressive to clear associated structures, and the dosage should be working towards increasing tissue capacity and widening the optimal loading zone.

PHASE OF TX –

Phase I requires maximum tissue protection.

Phase II requires moderate tissue protection, such as a brace, corset, taping or sling.

Phase III indicates minimal need for tissue protection, and usually does not require external support. Rather, patients are educated to control their symptoms with their posture, select positions and or muscle recruitment.

Phase IV is when tissue protection is no longer needed, but the patient continues with therapeutic exercises. This is typically when patients are discharged but continue with their home exercise program.

Phase V is when the patient no longer needs to their home exercise program and has returned to the general populace. Consulting and education at this stage is more generic but is still very useful for patients to reduce risk factors. Some conditions, such as instabilities and degenerative conditions, prevent some patients from reaching Phase V.

SLOPE -

Static

Function and symptoms are getting no worse or better

Positive

Are they getting better most days, small setbacks occasionally are normal and not considered oscillating. Often your first treatment goal is to get your patient on a positive slope!

Negative

The overall condition is getting worse. In some cases (such as degenerative changes that are being appropriately managed may over the long run be on a negative slope).

Oscillating

The patient makes clear swings in positive and negative responses to your intervention. Often, there are deficits in patient education and/or inappropriate dosage. Also, the therapist is often guessing at the intervention and may occasionally guess right and/or wrong. Your goal is to get this patient back on a positive slope.

+/- FACTORS – Key environmental and contextual factors that may enhance prognosis (+) or delay/complicate prognosis (-). This is heavily routed in the **ICF**.

POSITIVE examples: live on 1 story house, has strong family support, pt is not under litigation and no Waddell signs, patient is well-educated, has strong communication skills, content with employment and socioeconomic status etc.

NEGATIVE examples: lives in multistory house and hard to manage, poor social support, poor communication skills, non-native speaker, under litigation and showing signs of malingering, frustrated with employer and current socioeconomic status, etc.

NPIP – Non-patient identified problem. This is your existing problem list, which should be **prioritized** on this form. This is at the body structure/function (impairment) level identified during your examination/evaluation.

STRATEGY - is the broad approach that will best address your NPIP. Options include joint mob, soft tissue, stretch, strengthen, re-train, offload, educate.

TACTIC - The **specific** elements and intensity of your intervention strategy. The therapist generally decides the tactic of the treatment, not the physician. Therefore, it is the therapists responsibility to prescribe and modify the tactics implemented. The strategy may be to strengthen, but the tactics will specify: quadriceps eccentric load on single leg to fatigue and DOMS response 3x per week focusing on endurance/fatigue resistant muscle fibers with excellent LE and spinal alignment.

POST TEST - Or your ongoing re-assessment at the NPIP level (your scoreboard). If your hypothesis is correct and the associated NPIP has resolved or been maximized. Example: NPIP: R cervical rotation. Strategy: mobilization and stretching. Tactic: Gr V rotary gapping mid cervical to the R and self mobilization for 3x per day at home. Post-test: R rotation for checking blindspot achieved without cervical deviation or pain into scapula., s

DISCHARGE CRITERIA - This should be **specific** and measurable at your last patient encounter. For example:

1. normalized core ratios with McGill testing and indep with HEP to maintain proper core ratios, strength and endurance
2. Tolerating Core IV/V level exercises without LE symptoms or abnormal movement patterns
3. 110% of external rotation strength (per hand-held dynamometer) relative to the non-dominant throwing shoulder.

You may perform a preliminary discharge at the 8 week mark but expect a 3 month follow up prior to a complete discharge. Consider the d/c criteria your absolute LAST patient encounter before they re-enter

the general populace without limitations OR once they have reached their MMI (maximum medical improvement). Discharge often occurs long before long term goals are reached, which is why there is a difference. For some patients, the LTG and D/C criteria are the same.

STP/LTP –

STP (short term prognosis)

Think roughly in a 30 day time frame. This is a good time frame for establishing goals as this is typical within our system and required by the state of Virginia to re-evaluate, update goals, and/or write a progress note within 30 days.

LTP (long term prognosis)

Think about what is the maximum level of functioning this patient will achieve with this condition in their **lifetime**.

OUTCOME - Anticipate/predict outcome on at least FOTO and perhaps other outcome/FOTO measures (e.g. Berg Balance, 6MWT, etc) that you are using to guide your discharge. ***If the patient is not improving on your outcome or performance measures, speculate here as to the reason.***

RE-ADMISSION - Consider the 1 or 2 most likely anticipated problems that if not fully addressed will lead to a readmission into the medical system for the current or a completely unrelated medical issue. This is in relation to **anticipated problems** that are not currently present.

Pt VALUES –

EBP Triad

(Research): Best external evidence

(Pt Values): Patient Values/expectations

(Experience): Individual clinical expertise

Best external evidence (Research):

Comment on at least one specific piece of external evidence used while managing this case.

Patient values/expectations (Pt Values):

Name one patient value/expectations (cognition, belief, emotion) that you have identified that will help or hinder your outcome with this individual.

Individual clinical expertise (Experience):

What patterns have you seen in this case that you have seen before that may help you manage this case and future related cases with more efficacy and/or efficiency (e.g. effective taping strategies for mid-foot instability).

CHALLENGES - Anything specific that you want the mentor to focus on to help you?

REFLECTION - Reflection (in-on-for action)

Did you have a "meta-moment" while reflecting *in-on-for* this case? (meta-moment = meta-cognitive moment where you thought about your thinking or actions). If so, share it here.

Excerpt from Mindful Practice (Epstein)

Mindful practitioners attend in a non-judgemental way to their own physical and mental processes during ordinary, everyday tasks. This critical *self reflection* enables physicians [medical providers] to listen attentively to patients' distress, recognize their own errors, refine their technical skills, make evidence-based decisions, and clarify their values so that they can act with compassion, technical competence, presence, and insight...Mindful practitioners use a variety of means to enhance their ability to engage in *moment-to-moment self-monitoring*, bring to consciousness their tacit personal knowledge and deeply held values, use peripheral vision and subsidiary awareness to become aware of new information and perspectives, and adopt *curiosity* in both ordinary and novel situations. In contrast, **mindlessness** may account for some deviations from professionalism (e.g.

ethical behavior) and errors in judgement and technique. Although mindfulness cannot be taught explicitly, it can be modeled by mentors and cultivated in learners. As a *link* between relationship-centered care and evidence-based medicine, mindfulness should be considered a characteristic of good clinical practice.

COLLABORATION - (inter/intra-disciplinary collaboration)

What direct resources have you used or anticipate using from *another health profession and/or from other physical therapists* to manage this case? This commonly comes in the form of conversations with other medical providers about treatment options (e.g. surgery, injections, massage, acupuncture), this may also include pharmacologic interventions (e.g. pain meds or anti-inflammatories), surgical reports, diagnostic imaging to assist in moving a case forward and/or rule out red flags.