

Development of Shoulder Rehabilitation Guidelines with ICF Classifications

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Shoulder Rehabilitation Guidelines

- Scope
 - Most Common Conditions
 - Limit to Non-operative care
 - Evidenced based
 - Classification important and should guide rehab
- ICF Nomenclature

Shoulder Rehabilitation Guidelines

Most Common Conditions (Non-op)

- Rotator cuff tendinopathy
 - aka Impingement syndrome, tendinitis, tendinosis, subacromial bursitis
- Frozen Shoulder
- Glenohumeral Instability

Millar JOSPT, 2006
 van der Windt, Ann Rheum Dis, 1995

The Shoulder and ICF

Popular Label	1 st ICD 9	ICF Body Function	ICF Body Structure	Activities/ Participation
Rotator Cuff Tendinopathy (Impingement)	726.1 Rot Cuff Syndrome	B7300 Power of isolated muscles and muscle groups	S7202 Muscles of shoulder region	D4452 Reaching D4300 Lifting D850 Work D520 Caring for body parts
Frozen Shoulder	726.0 Adhesive Capsulitis	B7100 Mobility of a single joint	S7201 Joints of the shoulder region	D4451 Pushing D4452 Reaching D4300 Throwing
Glenohumeral Instability	840.2 Shoulder ligament sprain	B7601 Control of complex voluntary movements	S7203 Ligaments and fasciae of shoulder region	

Shoulder Dx / Classification

- Rotator Cuff Tendinopathy / Impingement
- Glenohumeral Instability
- Frozen Shoulder

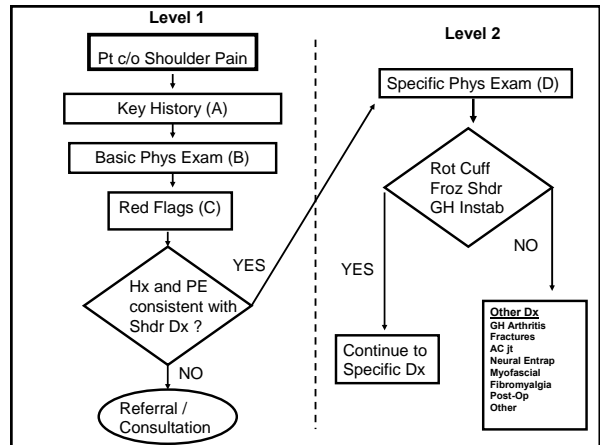
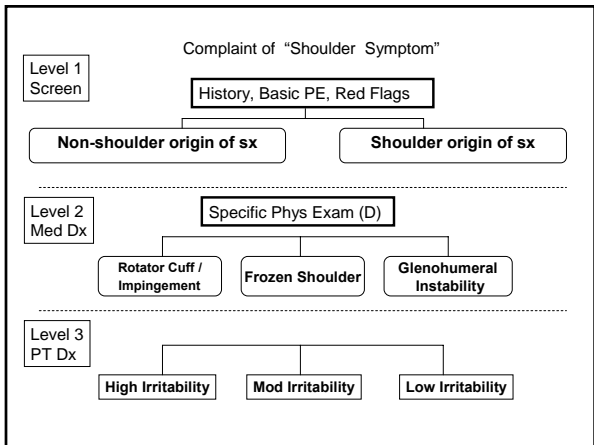
- Are these homogenous groups?
- Are these dx's specific enough to direct rehabilitation?
- Lessons learned from the spine...

Med Dx and PT Dx

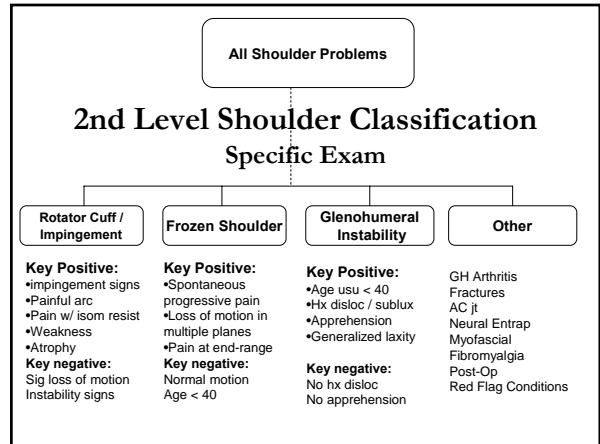
<ul style="list-style-type: none"> ■ Medical Diagnosis <ul style="list-style-type: none"> ■ Pathoanatomic ■ Primary Tissue Pathology ■ Stable over episode of care ■ Guides general Rx strategy ■ Informs prognosis 	<ul style="list-style-type: none"> ■ PT Diagnosis <ul style="list-style-type: none"> ■ Sx Severity / Impairment ■ "Irritability" <ul style="list-style-type: none"> ■ Current intensity ■ Often changes over episode of care ■ Guides specific rehab Rx ■ May inform prognosis
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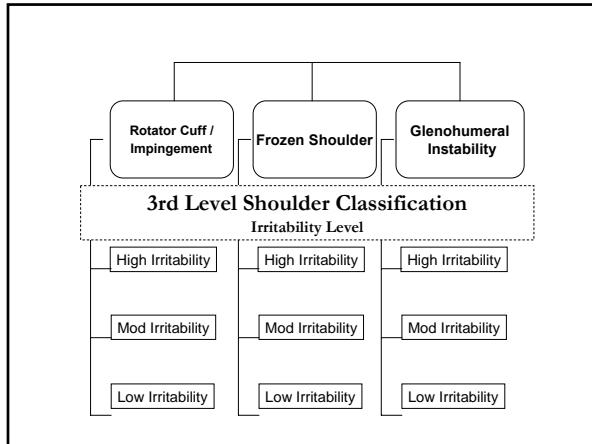
Med Dx and PT Dx

Med Dx or PT Dx	Rot Cuff	Froz Shdr	GH Instab	Treatment Strategy
Pain	+ / +++	+ / +++	--	Activity Mod
Weak	++ / +++	-- / +	++ / +++	Strengthen
Stiff	-- / +	+++	--	Mob
Laxity	-- / +	--	+++	Strength/ coord

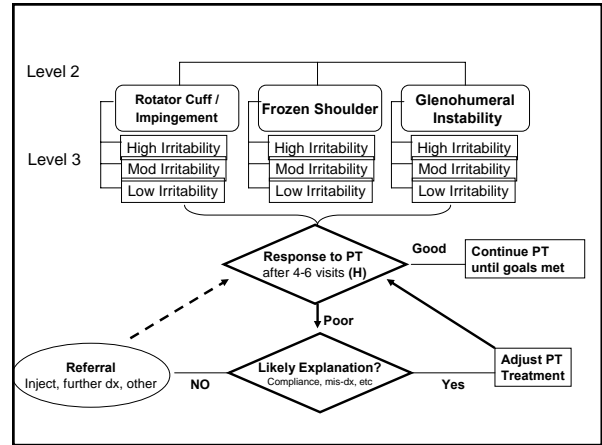
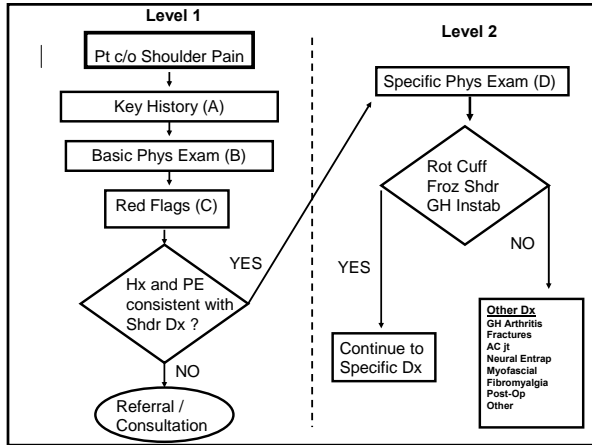


<p>A: Key Hx</p> <ul style="list-style-type: none"> • Age • Occupation / sports • Hand Dominance • PMH • Onset /duration sx's • Hx trauma / disloc • Pain <ul style="list-style-type: none"> • Location • Intensity • Factors ↑ or ↓ • Night pain • Other CC Sx's <ul style="list-style-type: none"> • Weakness • Paras/numbness • Stiffness • Self-report • Function/disability 	<p>B: Basic Phys Ex</p> <ul style="list-style-type: none"> • Observation • Posture • Upper Quarter Screen <ul style="list-style-type: none"> • r/o C-spine • r/o neurologic • AROM / PROM <ul style="list-style-type: none"> • Elev, IR, ER • Strength <ul style="list-style-type: none"> • Elev, IR, ER 	<p>C: Red Flags</p> <ul style="list-style-type: none"> • Acute Trauma • Tumor • Infection • Referred Pain <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Yellow Flags</p> <ul style="list-style-type: none"> • Fear Avoidance • Psychosocial Factors </div>
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High Irritability (E) (3/5 to categorize)	Moderate Irritability (F) (3/5 to categorize)	Low Irritability (G) (3/5 to categorize)
<ul style="list-style-type: none"> High Pain ($\geq 7/10$) night or rest pain <ul style="list-style-type: none"> consistent Pain before end ROM AROM < PROM High Disability <ul style="list-style-type: none"> (DASH, ASES) 	<ul style="list-style-type: none"> Mod Pain (4-6/10) night or rest pain <ul style="list-style-type: none"> intermittent Pain at end ROM AROM = PROM Mod Disability <ul style="list-style-type: none"> (DASH, ASES) 	<ul style="list-style-type: none"> Low Pain ($\leq 3/10$) night or rest pain <ul style="list-style-type: none"> none Min pain w/overpressure AROM = PROM Low Disability <ul style="list-style-type: none"> (DASH, ASES)
Rx focus: <ul style="list-style-type: none"> pain reduction 	Rx focus: <ul style="list-style-type: none"> pain reduction impairments basic function 	Rx focus: <ul style="list-style-type: none"> High demand functional activity restoration



Treatment Response Criteria (H)

Good response	Poor response
<ul style="list-style-type: none"> Pain improved (> 2 pts on NPRS) Function / disability improved: $> MDC$ in self-report outcome (DASH=13pts, ASES= 9.4pts) Patient satisfaction improved (> 2 pt on 11pt scale) 	<ul style="list-style-type: none"> Pain is unimproved or worsened Function / disability unimproved or worsened Patient dissatisfied

Matched Treatment Strategy

	High Irritability	Moderate Irritability	Low Irritability
Modalities	+/-	+ / -	--
Activity Modification	+	+ / -	--
ROM/ Stretch	Pain-free passive AAROM	AAROM \rightarrow AROM	End-range/ overpressure
Manual Techniques	Low grade	Low / High grade	High grade
Strengthen	--	Light \rightarrow mod resistance Mid-ranges	Mod \rightarrow high resistance End-ranges
Functional Activities	--	Basic	High demand
Patient Education	+	+	+
Taping / functional support (brace / external)	+ / -	+ / -	+ / -