

Measuring Process Adherence with the Low Back Pain Treatment-Based Classification System

KATE MINICK, PT, DPT, PHD, OCS * • GERARD BRENNAN, PT, PHD * • PAM DIBBLEE, PT, DPT, OCS * • STEPHEN HUNTER, PT, DPT, OCS *

*Intermountain Healthcare, Rehabilitation Services

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BACKGROUND

The Low Back Pain (LBP) Clinical Practice Guideline recommends that therapists utilize a classification system to subgroup patients in the evaluation and treatment of LBP. Compliance to guidelines in healthcare is generally poor (McGlynn 2003). The purpose of this implementation study was to measure the effect of a regular audit and feedback process on therapist adherence to the Treatment-Based Classification (TBC) system.

Significance: Once a classification system for evaluating and directing treatment of low back pain (LBP) is implemented there is limited evidence on therapists' continued adherence to the system. "Matching" treatment with the classification system can improve patient outcomes (Fritz 2007).

METHODS

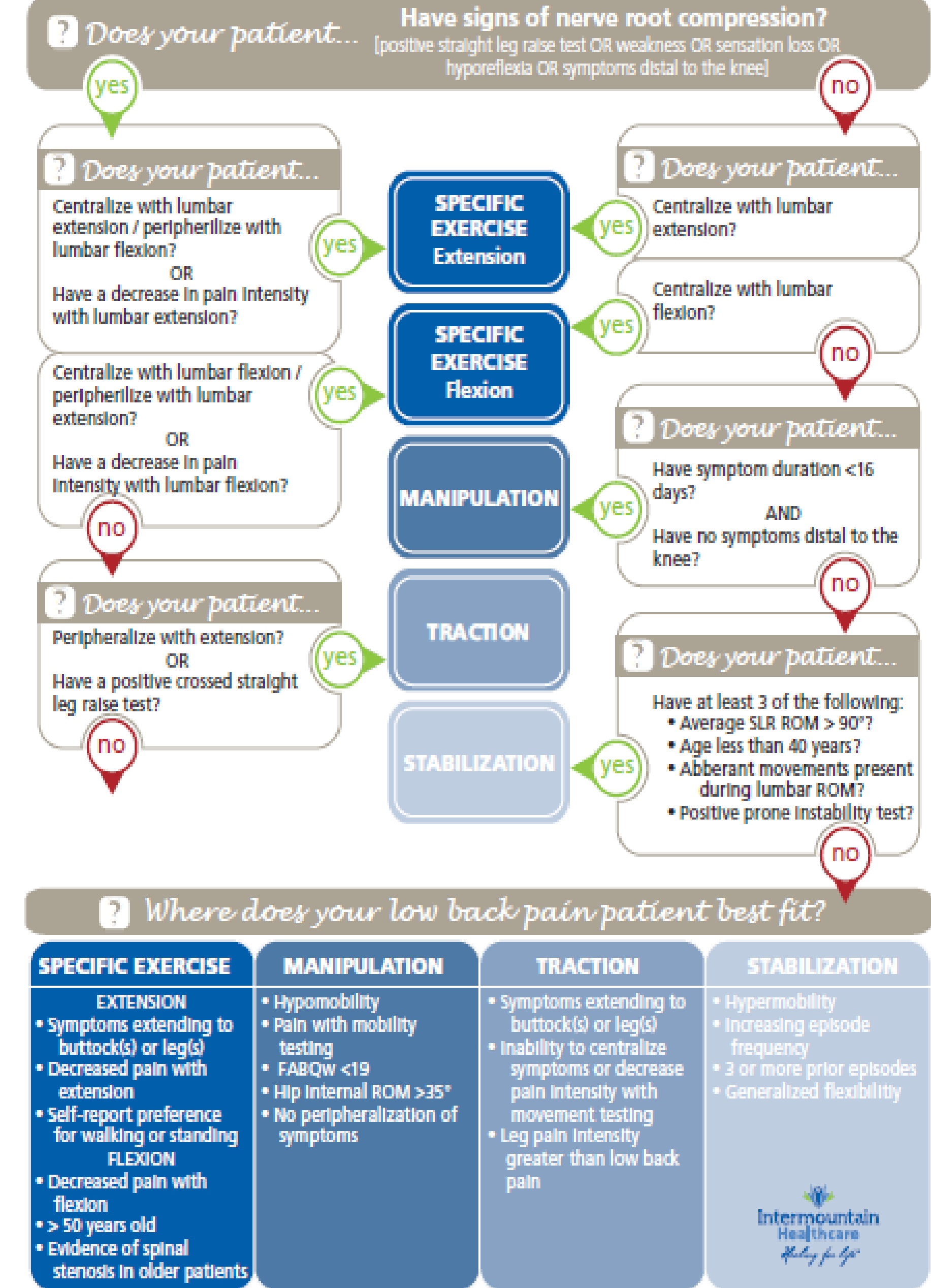
Patients with 3+ visits for LBP were audited for adherence to the TBC system in 2017 Q4 and 2018 Q2-4 (n=749) for 35 outpatient orthopedic clinics. Adherence was defined as a therapist making a correct classification and matching the first treatment to that classification. At the end of each quarterly audit, feedback was provided to each clinic manager for individual clinician performance reviews. Overall adherence was measured each quarter for the health system. The Modified Low Back Disability Questionnaire (MDQ) was measured at every visit and used to determine whether a Minimal Clinically Important Difference (MCID = 6 points) was met during the episode of care.

RESULTS

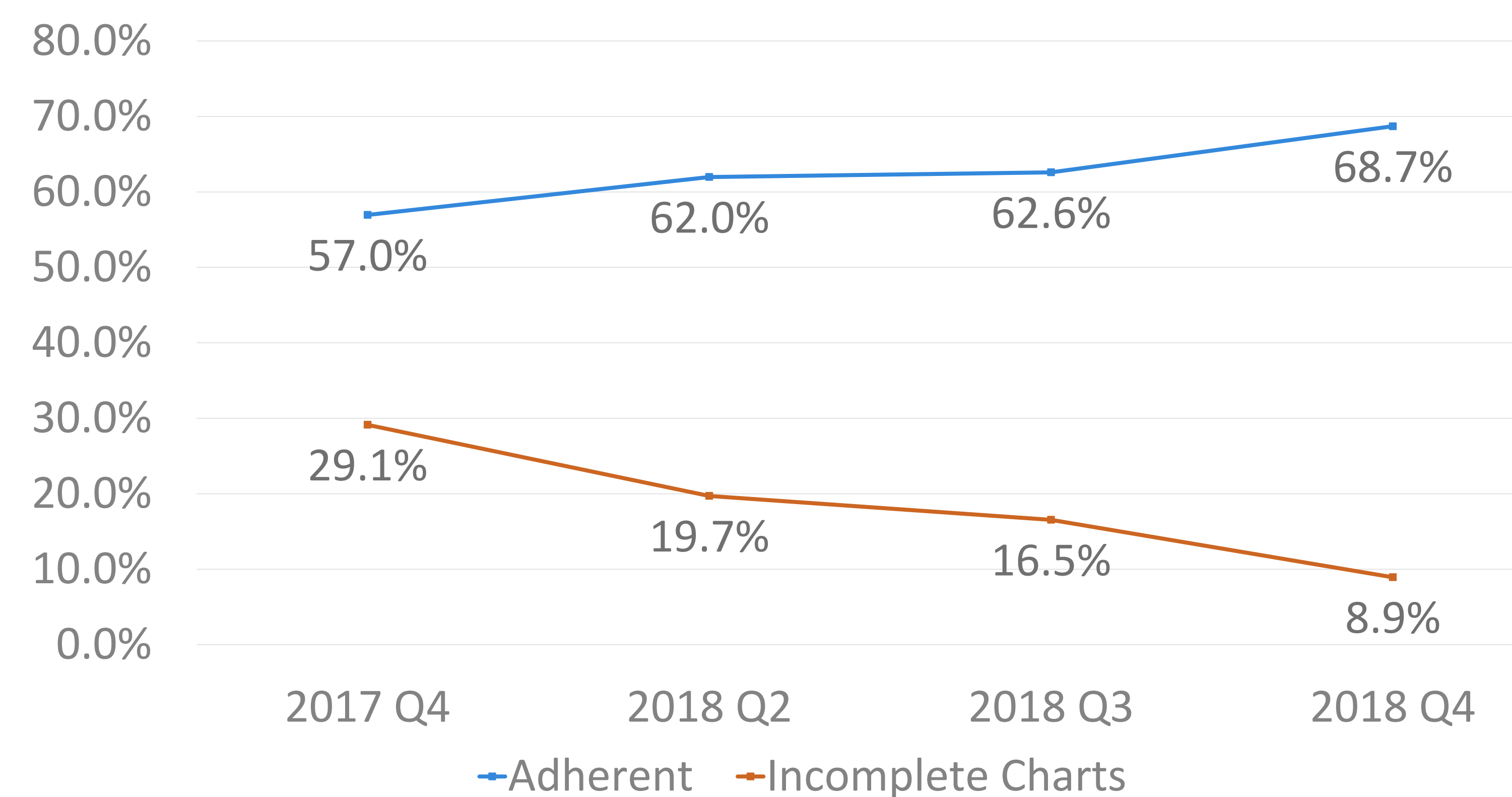
TBC adherence increased each measurement quarter: 2017 Q4 = 57.0% (n=151), 2018 Q2 = 62.0% (n=213), Q3 = 62.6% (n = 139), Q4 = 68.7% (n = 246). The difference between the first and last quarters was statistically significant (Pearson X^2 (1, n = 397) = 5.56, p=.02) and represents a 11.7% improvement in adherence over the year. Adherent care was associated with achieving an MCID on the MDQ: Pearson X^2 (4, n = 749) = 9.09, p=.003.

Low Back Pain Treatment-Based Classification Quality Review		EVALUATION																
Intermountain Healthcare		Algorithm					Best Fit Criteria											
Therapist Classifications:		Complete form from L→R until column 0 populates																
Sp Ex Extension	0 = No	Does the patient have Nerve Root Compression	Does the patient Centralize with repeated extension	Does the patient Centralize with repeated flexion	Does the +NRC patient peripheralize with ext or have +XSLR	Does the (-) NRC patient have symptoms <16 days AND no symptoms below knee	Does the (-) NRC patient have 3 of 4 criteria: SLR ROM >90, age <40, aberrant mvmts, +PIT	other Extension criteria: Symptoms extending to buttock/legs, ↓ pain with ext, preference for walking / standing	other flexion criteria: ↓ pain with flx, >50 years old, spinal stenosis	other manipulation criteria: hypomobility, pain with mobility testing, FABQw<19, hip IR>35, no peripheralization	other traction criteria: sx extending to buttock/legs, inability to centralize w repeated mvmt, leg intensity> back	other stabilization criteria: Hypermobility, increasing episode frequency, 3+ episodes, generalized flexibility	1st Treatment Adherent?	Correct Classification	Therapist's Decision Correct?	Correct Classification AND Treatment Adherence Match?	Total Compliance	#DIV/0!
Patient MRN	Therapist's Classification																	

Treatment - Based Classification of Low Back Pain



Adherent and Incomplete Charts



Classification	MCID Success	MCID Failure	Total
Adherent	337	137	474
Not Adherent	166	109	275
	503	246	749

Pearson X^2 (1) = 9.09, p = .003

CONCLUSION

The initial adherence rate of 57% is consistent with other research auditing adherence to standard care processes. Adherence was successfully increased by 11.7% over 1 year of conducting an audit and feedback process. Improvement in adherence appears to be related to conducting a more complete evaluation. Patients who received adherent care were more likely to achieve an MCID improvement on the MDQ.