

Attachment L-3:

Descriptions of Outcome Measures for MSD Intervention Study

OI: MSD Symptoms (Individual employee level)

- o Rated by employees impacted by target interventions
- o Collected at baseline and every 3 months from baseline through completion
- o Participants will also be asked to report severe episodes of back or shoulder pain that occurred within the last 3 months
- o Ordinal data (but often treated as continuous when scores are averaged)

<i>Label</i>	<i>Description</i>	<i>Comments</i>
OIa	<p>--NASS Lumbar Spine Outcome Assessment Instrument - 17 items with a 6-point response scale: None of the time (=1) - all the time (=6); not at all bothersome (=1) - extremely bothersome (=6)</p> <p><u>Notes:</u> Factor analysis (Daltroy et al, 1996) has identified two scales: 1) Pain & Disability scale: items on frequency and bothersomeness of back pain, plus nine items on disability because of pain, for a total of 11 items (questions 1a-b, 5-13). The mean score of this scale will be calculated. (OIa-1)</p> <p>2) Neurogenic Symptom scale: six items on frequency and bothersomeness of leg or foot pain, numbness, and tingling (questions 4a-b, 5a-b, 6a-b). The mean score of this scale will be calculated. (OIa-2)</p> <p>The NASS outcome has been found to have acceptability, high re-test reliability, internal reliability, and validity for low back pain and disability (Daltroy et al 1996; Schochat et al 2000; Pose et al 1999; Padua et al 2001; Bosković et al 2009; Schneider et al 2007; Schluessmann et al 2009; Sigl et al 2006; Weigl et al 2006; Schaeren et al 2005).</p> <p>See Attachment H-1 for a copy of the NASS instrument.</p>	<p>Primary outcome</p> <p>Example null hypotheses:</p> <p>OIa-1: There will be no difference between mean Pain & Disability scale score ratios (pre/ post intervention scores) when groups are compared (focusing on time period Baseline A to B)</p> <p>OIa-2: Duration of intervention will not be significantly associated with post mean back Pain & Disability scale score declines</p>
OIb	<p>--Quick DASH Outcome Measure with Work Module Option</p> <p>DASH stands for "Disabilities of the Arm, Shoulder and Hand." The Quick DASH Outcome Measure is a self-reported questionnaire designed to measure physical function and symptoms in people with any of several MSD of the upper limb. The Quick DASH Outcome Measure is scored in two components: the disability/symptom section (11 items, scored 1-5) and the optional Work section (4 items, scored 1-5). (Beaton et al 2001)</p> <p>See Attachment H-2 for a copy of the Quick DASH instrument.</p>	<p>Secondary outcome</p> <p>Example null hypotheses:</p> <p>OIb-1: There will be no difference between mean DASH disability/symptom score ratios (pre/ post intervention scores) when groups are compared (focusing on time period Baseline A to B)</p> <p>OIb-2: Duration of intervention will not be significantly associated with post mean DASH disability/symptom score declines</p>
OIc	<p>--Borg CR-10 RPE (Ratings of perceived exertion) (Borg, 1982)</p>	<p>Secondary outcome</p>

	Please rate the OVERALL PHYSICAL EFFORT level demanded by your job today. 0 = Nothing at all; 0.5 = Extremely weak (just noticeable); 1 = Very Weak; 2 = Weak (light); 3 = Moderate; 4 ; 5 = Strong; 6; 7 = Very Strong; 8; 9; 10 = Extremely strong (almost max); . = Maximal;	
OE: WC data, Quality, Productivity (Establishment level)		
<ul style="list-style-type: none"> o Rates will be calculated quarterly (4 times per year) 		
<i>Label</i>	<i>Description</i>	<i>Comments</i>
OEa	--Workers compensation (WC) data (collected for all participating establishments, from 2 years pre intervention through study duration) <ul style="list-style-type: none"> • Intervention specific and general establishment <ul style="list-style-type: none"> o WC MSD case incidence (per 100 FTE) o WC MSD lost time case incidence (per 100 FTE) o WC MSD cost per 100 FTE* *Analysis of financial related WC outcomes will be deferred until Fall 2015 to allow for proper loss development of claims.	Secondary outcome
OEb	--Absenteeism measures TBD* <ul style="list-style-type: none"> • Intervention specific and general establishment • *Will be identified a priori • 	Secondary outcome
OEc	--Quality measures TBD* <ul style="list-style-type: none"> • Intervention specific and general establishment • *Will be identified a priori • 	Secondary outcome
OEed	--Productivity measures TBD* <ul style="list-style-type: none"> • Intervention specific and general establishment • *Will be identified a priori 	Secondary outcome