

ORGANIZATION NEWS

Highlights From the Rehabilitation Measures Database

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Measurement Characteristics and Clinical Utility of the American Shoulder and Elbow Surgeons Standardized Shoulder Assessment Form in Individuals With Orthopedic Shoulder Dysfunction

Kaitlyn Sly, SPT, LAT-ATC, Alexis Williams, SPT, LAT-ATC,
Charles Sheets, PT, OCS, SCS, Dip MDT

Shoulder dysfunction is a widely recognized problem that is associated with patients and economic burden.¹ In 2000, shoulder dysfunction costs in the United States totaled \$7 billion.¹ Shoulder dysfunction has complex etiologies that can be diagnosed in most patients on the basis of medical history, focused physical examination, and radiographs.¹ Rehabilitation is usually the first step in addressing shoulder dysfunction. The American Shoulder and Elbow Surgeons Standardized Shoulder Assessment Form (ASES) is a condition-specific scale that is intended to measure functional limitations and pain of the shoulder. This 11-item, public domain test can be administered in 5 minutes and is patient reported. The ASES has excellent reliability and validity in patients with shoulder dysfunction, including shoulder arthroplasty and shoulder pain.²⁻⁵ Minimal detectable change scores are valuable in helping clinicians measure increased shoulder function as a result of treatment.

This Rehabilitation Measures Database summary provides a review of the psychometric properties of the ASES in people with orthopedic shoulder dysfunction, including reliability, validity, standard error of measurement, minimum detectable change, and interpretation of the results. A full review of the ASES as well as reviews of more than 300 other instruments can be found at www.rehabmeasures.org.


Please address correspondence to rehabmeasures@ric.org.

BIBLIOGRAPHY

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This instrument summary is designed to facilitate the selection of outcome measures by trained clinicians. The information contained in this summary represents a sample of the peer-reviewed research available at the time of this summary's publication. The information contained in this summary does not constitute an endorsement of this instrument for clinical practice. The views expressed are those of the summary authors and do not represent those of authors' employers, instrument owner(s), the *Archives of Physical Medicine and Rehabilitation*, the Rehabilitation Measures Database, or the United States Department of Education. The information contained in this summary has not been reviewed externally.

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		Measure Name:																		
		American Shoulder and Elbow Surgeons Standardized Shoulder Assessment Form																		
Summary Author:	Acronym:	Items:	Score:	Admin Time:	Training:															
K Sly; A Williams; C Sheets	ASES	11	0/100 (min/max)	5 minutes	None required															
Population Reviewed:				Required Equipment:																
Orthopedic Shoulder Dysfunction, others at www.rehabmeasures.org				Paper and pencil																
Purpose and Administration Instructions:																				
The ASES assesses pain (single VAS) and function (10 questions). Composite scores are weighed equally and combined for a total score out of 100 points.																				
Scoring Instructions:			Reliability:																	
<p>The ASES has 1 pain question and 10 function questions. The pain score is calculated using a 10 cm VAS that is broken into 10, 1 cm increments. The pain score is reverse coded (subtracted from 10), then multiplied by 5 to get a best possible score of 50. The functional raw score has a maximum of 30 points, which is multiplied by 5/3 to get a total possible of 50. The pain and function subtotals are added for a total of 100. A score of 0 indicates the worst pain and functional loss/disability.</p>			<p>Shoulder Arthroplasty:</p> <ul style="list-style-type: none"> • <i>Excellent</i> test-retest reliability² <p>Shoulder Dysfunction:</p> <ul style="list-style-type: none"> • <i>Excellent</i> test-retest reliability³ • <i>Excellent</i> internal consistency⁴ <p>Shoulder Pain:</p> <ul style="list-style-type: none"> • <i>Excellent</i> test-retest reliability⁵ 																	
Validity:																				
<p>Concurrent Validity for Shoulder Dysfunction:⁴</p> <ul style="list-style-type: none"> • <i>Excellent</i> for Penn shoulder scale • <i>Adequate</i> for SF-36 physical function, role physical, and physical component summary scores <p>Divergent Validity for Shoulder Dysfunction:⁴</p> <ul style="list-style-type: none"> • <i>Poor</i> for SF-36 role emotional score, mental health score, and mental component summary score <p>Discriminant Validity: ⁴</p> <ul style="list-style-type: none"> • Higher scores for patients who stated that they had “gotten much better” versus those who had “gotten slightly better”, and for those rated “minimally functionally limited” versus the “maximally and moderately” limited 																				
Minimal Detectable Change (MDC):			Minimally Clinically Important Difference (MCID):																	
<ul style="list-style-type: none"> • MDC for Total Shoulder Arthroplasty = 10.5² • MDC for Shoulder Dysfunction:⁴ <ul style="list-style-type: none"> • Pain = 7.2 • Function = 5.8 • Total = 9.4 			<p>MCID for Shoulder Dysfunction = 6.4⁴</p>																	
			Standard Error of Measurement (SEM):																	
			<ul style="list-style-type: none"> • SEM for Shoulder Dysfunction:⁴ <ul style="list-style-type: none"> • Pain = 5.1 (8.4) • Function = 4.1 (6.7) • Total = 6.7 (11.0) 																	
Considerations:			Abbreviations:																	
<ul style="list-style-type: none"> • The ASES contains a patient self report section and a physical examination section to be administered by medical professionals. The physical examination section includes items such as range of motion, strength, and specific diagnostic tests, reflecting a standardized patient examination . These results are not included in the ASES self-report section. This tear sheet provides psychometric data for the ASES self report section. 			<p>VAS: Visual Analogue Scale</p> <table border="1"> <thead> <tr> <th colspan="3">Cut-off Criteria:</th> </tr> <tr> <th></th> <th><i>r</i></th> <th>ICC</th> </tr> </thead> <tbody> <tr> <td>Excellent</td> <td>≥ 0.6</td> <td>≥ 0.75</td> </tr> <tr> <td>Adequate</td> <td>0.31-0.59</td> <td>0.40-0.74</td> </tr> <tr> <td>Poor</td> <td>≤ 0.3</td> <td>< 0.4</td> </tr> </tbody> </table>			Cut-off Criteria:				<i>r</i>	ICC	Excellent	≥ 0.6	≥ 0.75	Adequate	0.31-0.59	0.40-0.74	Poor	≤ 0.3	< 0.4
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