

Survey of Shoulder Surgeons Indicates Multiple Clinical Shoulder Exam Tests are Being Utilized

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Background: A multitude of shoulder special tests have been reported and utilized by health care professionals. Due to the vast array of tests, educators of healthcare curriculums are challenged to resolve which tests should be taught. Is there a central core of tests that would be appropriate to include during entry level education of allied health professionals?

Purpose: To survey experienced shoulder specialists to determine common clinical tests used for nine specific shoulder injuries in order to determine if a core battery of tests should be taught to allied health professionals.

Design and Setting: A descriptive survey administered via electronic mail.

Participants: Seventy-one of 131 active members of the American Shoulder and Elbow Surgeons (ASES) responded to the survey.

Methods: ASES members were asked to complete a survey documenting their utilization of clinical tests during a shoulder examination. Respondents checked “yes” or “no” indicating their use of 72 different tests used in diagnosing 9 shoulder conditions. Respondents could also write-in additional tests utilized with 50 tests added, resulting in a total of 122 tests.

Results: 71 members (age = 52 ± 9.2 years, years practicing = 21.2 ± 11 , patients seen in a year = 1701.3 ± 1305.2) responded (54% response). The average number of tests used for all pathologic conditions was 30 ± 9 . Only the anterior apprehension and cross body adduction tests are used by all respondents. At least 1 test is used for each of the 9 conditions listed (range 1-7). 25 tests are used by at least 50% of the respondents – these were reviewed for valid diagnostic accuracy via the Quality Assessment of Diagnostic Accuracy Studies (QUADAS) tool. A literature review discovered the diagnostic accuracy of 16/25 tests had been reported in the English literature with large variability (sensitivity median .63 and specificity median .75). QUADAS scores ranged from 5-12 out of 14 points with the median value of 9, indicating that overall these clinical tests are supported with moderately valid evidence.

Conclusions: This study demonstrates that a wide variety but small percentage (20%) of clinical tests are being utilized in the clinical exam of shoulder injury by members of ASES. Despite having limited or no clinical evidence regarding diagnostic accuracy of shoulder tests, physicians are not deterred from using clinical shoulder tests.

Clinical Relevance: Health care educators must realize and inform their students that several shoulder tests may be used in clinical practice. There is limited evidence supporting only a few clinical tests and they are at moderate quality. The 25 most common tests identified from this survey may serve as a foundation for students to build their knowledge base from, with the clear understanding that there are multiple clinical tests in use by some of the most experienced clinicians dealing with shoulder pathology.