Appendix Table A4

Statements that Reached Consensus in the Delphi Process

Items	% Disagree	% Agree
A. History		
1. History should include the degree/amount of pain and instability in the AC joint area.	0	100
2. History should include functional demands/goals of the patient regarding their arm/shoulder.	0	100
3. History should include the acuity of the injury.	5.6	94.4
4. Acute injury is defined as less than 2 weeks.	0	100
5. Sub-acute injury is defined as 2-6 weeks.	0	100
6. History should include patient's smoking status.	0	100
7. History should include hand dominance.	0	100
8. History should include occupation of the patient.	0	100
9. History should include mechanism of injury.	0	100
10. History should include patient's perception of the importance of cosmesis.	5.6	94.4
11. Patients reporting pain at the AC joint is an important consideration in the history when determining treatment options.	0	100
12. Patients reporting pain at the posterior shoulder or scapula is an important element in the history when determining treatment options.	8.3	91.7

13. Patients reporting shoulder weakness is an important consideration when determining treatment options.	6.7	93.3
14. Recreational activities and hobbies are important considerations in patients with AC joint separations with determining treatment options.	0	100
15. Identifying what motions cause the pain is relevant when determining treatment options.	6.3	93.7
B. Physical Exam	**% Disagree**	**% Agree**
16. The degree of prominence of the distal clavicle in the superior and anterior/posterior direction in relation to the displaced acromion is an important factor when considering treatment options.	0	100
17. Horizontal instability (i.e. cross arm test and anterior drawer test) is an important physical exam finding when considering treatment options.	6.7	93.3
18. Shoulder weakness is an important consideration when determining treatment options.	6.3	93.7
19. Shoulder pain with range of motion is an important consideration when determining treatment options.	6.3	93.7
20. Tenderness to palpation of the distal clavicle area is an important consideration when determining treatment options.	6.3	93.7
21. Vertical AC joint instability should be assessed during the physical exam.	5.9	94.1
22. Horizontal instability should be assessed during the physical exam.	0	100

23. Patients with chronic AC joint injuries and limited range of shoulder motion on exam should obtain an MRI for further evaluation prior to treatment decision-making.	5.9	94.1
24. Scapular evaluation with the scapular assistance test and scapular retraction test are important when determining treatment options.	0	100
25. Anteroposterior instability should be assessed with the shuck test.	6.7	93.3
26. It is not always possible to determine IIIA versus IIIB based on clinical exam during presentation after acute injury.	6.3	93.7
C. Radiology	**% Disagree**	**% Agree**
27. Imaging should include Grashey radiographs of the shoulder.	0	100
28. Imaging should include an axillary radiograph of the shoulder.	0	100
29. Imaging should include bilateral AC (Zanca) radiographs.	0	100
30. Imaging should include radiographs with patient holding weights (weighted radiographs).	100	0
31. Imaging should standardly include CT scan for evaluation of the AC joint.	100	0
32. Imaging should include AP (non Grashey) radiographs of the shoulder.	5.6	94.4

33. Imaging should include unilateral AC (Zanca) radiographs.	0	100
34. Imaging should include injured and contralateral shoulder radiographs.	6.7	93.3
35. Imaging should standardly include MRI scan for evaluation of the AC joint.	91	9
36. Imaging should include MRI to evaluate acute AC injuries for associated pathology not related to the Ac joint if there are concerning physical exam findings.	6.7	93.3
37. Imaging should include MRI to evaluate chronic AC injuries for associated pathology not related to the AC joint if there are concerning physical exam findings.	0	100
38. Determining IIIA versus IIIB injuries based on clinical exam and radiographs is always possible after acute injury.	93.3	6.7
D. Treatment	**% Disagree**	**% Agree**
39. Age is an important factor in determining operative versus non-operative treatment.	0	100
40. Time since injury is an important factor in determining operative versus non-operative treatment.	7.7	92.3
41. Patient hand dominance is an important factor in determining operative versus non-operative treatment.	6.3	93.7
42. Superior/inferior displacement is an important factor in determining operative versus non-operative treatment.	0	100

43. Anterior/posterior displacement is an important factor in determining operative versus non-operative treatment.	7.1	92.9
44. Patient occupation is an important factor in determining operative versus non-operative treatment.	6.3	93.7
45. Type 1 and Type 2 injuries should undergo non operative treatment.	6.3	93.7
46. Acute Type 3 AC joint injuries should undergo initial non operative treatment.	6.25	93.75
47. Type 4 injuries should generally undergo operative treatment.	0	100
48. Type 5 injuries should generally undergo operative treatment.	0	100
49. Type 6 injuries should generally undergo operative treatment.	0	100
50. Concomitant rotator cuff tear is an important factor in determining operative versus non-operative treatment.	0	100
51. Acute Type 3A AC joint injuries should undergo initial non operative treatment.	0	100
52. Type 3 AC joint injuries that fail initial non-operative treatment is an indication for surgery.	0	100
53. Patients can be considered to have failed conservative treatment after three months.	5.6	94.4
54. Patients can be considered to have failed conservative treatment after six months.	0	100

E. Technique	% Disagree	% Agree
55. Surgical treatment of subacute (less than 6 weeks) AC instability does not need biologic augmentation (with allograft or autograft).	92.9	7.1
56. Surgical treatment of sub-acute and chronic AC instability should have tendon augmentation with allograft or autograft.	0	100
57. Surgical treatment can be performed either open or arthroscopic-assisted.	0	100
58. Distal clavicle resection should be routinely performed during surgical treatment.	92.9	7.1
59. Two clavicle tunnel/drill holes reconstruction technique is an acceptable construct option.	5.9	94.1
60. Reconstruction techniques should include suture/non biological material even when allograft/autograft tendon is utilized.	0	100
61. When using biological augmentation, autograft tissue should be used.	100	0
62. When using biological augmentation, allograft tissue is acceptable in all cases.	6.3	93.7
63. The ACJ capsule requires primary repair when doing CC ligament reconstruction.	6.7	93.3
64. Patients who smoke/use tobacco should have biological augmentation with allograft or autograft during AC joint reconstruction surgery.	8.3	91.7

65. Patients who smoke/use tobacco should have allograft augmentation during AC joint reconstruction surgery.	9	91
66. Surgical treatment of AC joint injuries should be performed with an arthroscopic only technique.	100	0
67. Having no clavicle tunnel/drill holes reconstruction technique is an acceptable construct option.	7.7	92.3
68. Weaver Dunn (CA ligament transfer) is an acceptable construct for initial surgical treatment of AC joint injuries without bone loss.	92.9	7.1
69. Graft pre-tensioning should be performed when utilizing auto/allograft biological augmentation.	7.7	92.3
70. The ACJ capsule requires primary repair when doing CC ligament reconstruction.	7.1	92.9
71. If tissue quality permits, repair of the ACJ capsule should be performed.	5.6	94.4
F. Rehabilitation	**% Disagree**	**% Agree**
72. Sling/immobilization should continue for at least 6 weeks post AC joint reconstruction.	5.9	94.1
73. Weight bearing/resistance training for the operative shoulder should begin at least 3 months following surgery.	5.9	94.1
74. Rehabilitation timelines should vary depending on surgical technique (repair only without allograft versus reconstruction with allograft; drill holes in coracoid/clavicle versus no drill holes.	9	91

75. Typical timeline for return to sport (including contact sport) is at least 6 months.	0	100
76. Rehabilitation timeline should vary based on pre-operative degree of displacement.	90.9	9.1