

S3 Appendix.

Publications excluded for the purpose of the HTA analysis of humerus fractures performed by the Swedish Agency for Health Technology Assessment and Assessment of Social Services

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Excluded publications – Effectiveness and complications of treatments

Reasons: Not relevant studies

Randomized controlled trials (80 trials)

1. Ahmed, A. R., T. Sweed and A. Wanas (2008) "The role of cancellous screw with tension band fixation in the treatment of displaced olecranon fractures, a comparative study." *European journal of orthopaedic surgery & traumatology: orthopedie traumatologie* 18, 571-576 DOI: 10.1007/s00590-008-0355-0.
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- (2015). "Surgical vs nonsurgical treatment of adults with displaced fractures of the proximal humerus: the PROFHER randomized clinical trial." *Jama* 313(10): 1037-1047.
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reduce cast pressure in a fiberglass short arm cast." *J Bone Joint Surg Am* 97(5): 374-380.

Non-randomized control trials (44 trials)

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2. Abdelhady, A. M. (2013). "Timing of shoulder arthroplasty in comminuted proximal humerus fracture, how much does it matter?" *Eur J Orthop Surg Traumatol* 23(5): 515-519.
3. Aktekin, C. N., M. Altay, Z. GURSOY, L. A. Aktekin, A. M. Ozturk and A. Y. Tabak (2010). "Comparison between external fixation and cast treatment in the management of distal radius fractures in patients aged 65 years and older." *J Hand Surg Am* 35(5): 736-742.
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5. Blonna, D., F. Castoldi, M. Scelsi, R. Rossi, G. Falcone and M. Assom (2010). "The hybrid technique: potential reduction in complications related to pins mobilization in the treatment of proximal humeral fractures." *J Shoulder Elbow Surg* 19(8): 1218-1229.
6. Blonna, D., R. Rossi, G. Fantino, A. Maiello, M. Assom and F. Castoldi (2009). "The impacted varus (A2.2) proximal humeral fracture in elderly patients: is minimal fixation justified? A case control study." *J Shoulder Elbow Surg* 18(4): 545-552.
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malunion and arm-related disability: a prospective population-based cohort study with 1-year follow-up." *BMC Musculoskeletal Disord* 12: 9.

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10. Cai, L., S. Zhu, S. Du, W. Lin, T. Wang, D. Lu and H. Chen (2015). "The relationship between radiographic parameters and clinical outcome of distal radius fractures in elderly patients." *Orthop Traumatol Surg Res* 101(7): 827-831.
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13. de Kruijf, M., J. P. Vroemen, K. de Leur, E. A. van der Voort, D. I. Vos and L. Van der Laan (2014). "Proximal fractures of the humerus in patients older than 75 years of age: should we consider operative treatment?" *J Orthop Traumatol* 15(2): 111-115.
14. DelSole, E. M., C. A. Pean, N. C. Tejwani and K. A. Egol (2016). "Outcome after olecranon fracture repair: Does construct type matter?" *Eur J Orthop Surg Traumatol* 26(2): 153-159.
15. Faraj, D., B. W. Kooistra, W. A. Vd Stappen and A. J. Werre (2011). "Results of 131 consecutive operated patients with a displaced proximal humerus fracture: an analysis with more than two years follow-up." *Eur J Orthop Surg Traumatol* 21(1): 7-12.
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Reasons: Studies with high risk of bias

Randomized control trials (13 trials)

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Studies excluded, reason: not involving humerus fractures

Randomized control trials (31 trials)

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Non-randomized control trials (10 trials)

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Excluded publications – Health economic evaluations

Reasons: Studies not involving humerus fractures

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3. Moon, C. N., C. A. Lin and S. S. Rajae (2016). "Primary total elbow arthroplasty for distal humeral fractures in elderly patients: a nationwide analysis." *Journal of Shoulder and Elbow Surgery* 25(11): 1854-1860.
4. Pritchett, J. W., A. Author, U. o. Department of Orthopaedic Surgery, (1995). "External fixation or closed medullary pinning for unstable Colles fractures?" *Journal of Bone and Joint Surgery - Series B* 77(2): 267-269.
5. Schonemann, J. O., T. B. Hansen and K. Soballe (2011). "Randomised study of non-bridging external fixation compared with intramedullary fixation of unstable distal radial fractures." *J Plast Surg Hand Surg* 45(4-5): 232-237.
6. Shauver, M. J., H. Yin, M. Banerjee, K. C. Chung, A. (2011). "Current and future national costs to medicare for the treatment of distal radius fracture in the elderly." *Journal of Hand Surgery* 36(8): 1282-1287.

Reasons: Studies that only studied resource use or costs, i.e. were not full health economic evaluations

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3. Handschin, A. E., M. Cardell, C. Contaldo, O. Trentz and G. A. Wanner (2008). "Functional results of angular-stable plate fixation in displaced proximal humeral fractures." *Injury* 39(3): 306-313.
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with increased hospital charges despite a shorter length of stay." Orthopaedics and Traumatology: Surgery and Research 102(1): 19-24.

5. Sabharwal, S., A. W. Carter, A. Rashid, A. Darzi, P. Reilly and C. M. Gupte (2016). "Cost analysis of the surgical treatment of fractures of the proximal humerus: an evaluation of the determinants of cost and comparison of the institutional cost of treatment with the national tariff." Bone Joint J 98-b(2): 249-259.
6. Solomon, J. A., S. M. Joseph, Y. Shishani, B. N. Victoroff, J. H. Wilber, R. Gobezie and R. J. Gillespie (2016). "Cost Analysis of Hemiarthroplasty Versus Reverse Shoulder Arthroplasty for Fractures." Orthopedics: 1-6.