

## Appendix 1

### Boolean Search Strings

#### Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)

((exp spinal fractures/ and exp fractures, compression/) or ((spinal or vertebral or thoracolumbar) adj3 (compression or wedge) adj3 (fracture\* or injur\*)).tw) and (exp orthotic devices/ or (orthotic\* or orthosis or orthosis or orthoses or brace or braces or bracing or minerva or TLSO or LSO or conservative).tw)

### Cochrane CENTRAL

(([mh "spinal fractures"] and [mh "fractures, compression"]) or ((spinal or vertebral or thoracolumbar) near/3 (compression or wedge) near/3 (fracture\* or injur\*)):ab,ti) and ([mh "orthotic devices"] or (orthotic\* or orthosis or orthosis or orthoses or brace or braces or bracing or minerva or TLSO or LSO or conservative):ab,ti)

### Embase

((('spine fracture'/exp AND 'compression fracture'/exp) OR (((spinal OR vertebral OR thoracolumbar) NEAR/3 (compression OR wedge) NEAR/3 (fracture\* OR injur\*)):ti,ab)) AND ('orthosis'/exp OR orthotic\*:ti,ab OR orthosis:ti,ab OR orthosis:ti,ab OR orthoses:ti,ab OR brace:ti,ab OR braces:ti,ab OR bracing:ti,ab OR minerva:ti,ab OR tlo:ti,ab OR lso:ti,ab OR conservative:ti,ab))

## Appendix 2 - Excluded Study List

1. Bagga RS, Goregaonkar AB, Dahapute AA, Muni SR, Gokhale S, Manghwani J. Functional and radiological outcomes of thoracolumbar traumatic spine fractures managed conservatively according to Thoracolumbar Injury Severity Score. *Journal of Craniovertebral Junction and Spine*. 2017;8(4):369-73.
2. Bailey CS, Dvorak MF, Thomas KC, Boyd MC, Paquett S, Kwon BK, et al. Comparison of thoracolumbosacral orthosis and no orthosis for the treatment of thoracolumbar burst fractures: interim analysis of a multicenter randomized clinical equivalence trial. *Journal of Neurosurgery Spine*. 2009;11(3):295-303.
3. Cankaya D, Yilmaz S, Devenci A, Dundar A, Yoldas B, Toprak A, et al. Clinical and radiological outcomes of conservative treatment after stable post-traumatic thoracolumbar fractures in elderly: Is it really best option for all elderly patients? *Annals of medicine and surgery (2012)*. 2015;4(4):346-50.
4. Dionyssiotis Y, Trovas G, Thoma S, Lyritis G, Papaioannou N. Prospective study of spinal orthoses in women. *Prosthet Orthot Int*. 2015;39(6):487-95.
5. Hoshino M, Tsujio T, Terai H, Namikawa T, Kato M, Matsumura A, et al. Impact of initial conservative treatment interventions on the outcomes of patients with osteoporotic vertebral fractures. *Spine (Phila Pa 1976)*. 2013;38(11):E641-8.
6. Jacobs E, Senden R, McCrum C, van Rhijn LW, Meijer K, Willems PC. Effect of a semirigid thoracolumbar orthosis on gait and sagittal alignment in patients with an osteoporotic vertebral compression fracture. *Clinical interventions in aging*. 2019;14:671-80.
7. Li M, Law SW, Cheng J, Kee HM, Wong MS. A comparison study on the efficacy of SpinoMed® and soft lumbar orthosis for osteoporotic vertebral fracture. *Prosthet Orthot Int*. 2015;39(4):270-6.
8. Liaw MY, Chen CL, Chen JF, Tang FT, Wong AMK, Ho HH. Effects of Knight-Taylor brace on balance performance in osteoporotic patients with vertebral compression fracture. *Journal of Back and Musculoskeletal Rehabilitation*. 2009;22(2):75-81.
9. Meccariello L, Muzii VF, Falzarano G, Medici A, Carta S, Fortina M, et al. Dynamic corset versus three-point brace in the treatment of osteoporotic compression fractures of the thoracic and lumbar spine: a prospective, comparative study. *Aging Clinical and Experimental Research*. 2017;29(3):443-9.
10. Shah S, Goregaonkar AB. Conservative Management of Osteoporotic Vertebral Fractures: A Prospective Study of Thirty Patients. *Cureus*. 2016;8(3):e542.
11. Stadhouders A, Buskens E, Vergroesen DA, Fidler MW, Nies FD, Öner FC. Nonoperative treatment of thoracic and lumbar spine fractures: A prospective randomized study of different treatment options. *Journal of Orthopaedic Trauma*. 2009;23(8):588-94.