

Appendix

Search Strategy

OVID MEDLINE (retrieved study number n = 100 and time frame from 1946 to January week 5, 2018) and OVID EMBASE (n = 306 from 1947 to February 9, 2018)

- 1 exp “systematic review”/
- 2 (“systematic literature review?” or “systematic review?” or “systematic overview?”).ti,ab.
- 3 exp “meta analysis”/
- 4 (meta?anal* or meta anal* or meta-anal* or metaanal* or metanal*).ti,ab.
- 5 (“methodologic* literature review?” or “methodologic review*” or “methodologic* overview?”).ti,ab.
- 6 (“quantitative review?” or “research integration?” or “research overview?”).ti,ab.
- 7 (“quantitative syntheses” or “quantitative synthesis”).ti,ab.
- 8 (“integrative review?” or “integrative overview?” or “collaborative review?” or “collaborative overview?”).ti,ab.
- 9 (“pooled analyses” or “pooled analysis”).ti,ab.
- 10 (“data extraction” or “data abstraction”).ti,ab.
- 11 (“data synthesis” or “data syntheses”).ti,ab.
- 12 or/1-11
- 13 fracture\$.ti,ab.
- 14 exp Fractures, bone/
- 15 (nonunion or nonunion).ti,ab.
- 16 non-heal\$.ti,ab.
- 17 union.ti,ab.
- 18 (heal or healed or heals or healing).ti,ab.
- 19 (allograft\$ or autograft\$).ti,ab.
- 20 or/13-19
- 21exp Parathyroid Hormone/
- 22 parathyroid hormone\$.tw.
- 23 Teriparatide.ti,ab.
- 24 (parathyrin or parathormone).ti,ab
- 25 (hpth or bpth).ti,ab
- 26 Forteo.ti,ab
- 27 abaloparatide.ti,ab.
- 28 TYMLOS.ti,ab
- 29 (PTH or PTH 1-84 or PTH 1-34).ti,ab
- 30 or/21-29
- 31 12 and 20 and 30

Cochrane Library (searched review number n = 14 from inception to February 11, 2018)

- 1 MeSH descriptor: [fracture, bone] explode all trees
- 2 fracture\$: ti,ab,kw.
- 3 (nonunion or nonunion): ti,ab,kw.

- 4 non-heal: ti,ab,kw.
- 5 union: ti,ab,kw.
- 6 (heal or healed or heals or healing): ti,ab,kw.
- 7 (allograft\$ or autograft\$): ti,ab,kw.
- 8 or/1-7
- 9 MeSH descriptor: [Parathyroid Hormone] explode all trees
- 10 parathyroid hormone\$: ti,ab,kw.
- 11 MeSH descriptor: [Teriparatide] explode all trees
- 12 Teriparatide: ti,ab,kw.
- 13 (parathyrin or parathormone): ti,ab,kw.
- 14 (hpth or bpth): ti,ab,kw.
- 15 Forteo: ti,ab,kw.
- 16 abaloparatide: ti,ab,kw.
- 17 TYMLOS: ti,ab,kw.
- 18 (PTH or PTH 1-84 or PTH 1-34): ti,ab,kw.
- 19 or/9-18
- 20 8 and 19

TABLE E-1 Quality Assessment of Included Studies by AMSTAR 2*†

Studies	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15	Item 16	Overall Quality
Saito et al. ³⁵ (2017)	Yes	Partial yes	Yes	Partial yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	NA	Yes	Moderate
Wang et al. ¹⁷ (2017)	Yes	No	Yes	Partial yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Partial yes	Partial yes	Partial yes	Yes	Low
Wilson et al. ³⁴ (2017)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	NA	Yes	NA	NA	Yes	High
Amiche et al. ¹⁴ (2016)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	High
Yang et al. ³⁶ (2016)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Partial yes	No	Yes	Critically low
Zhang et al. ³⁷ (2015)	Yes	No	Yes	Partial yes	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No	NA	Yes	Critically low
Chen et al. ¹⁵ (2015)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	Yes	Low
Li et al. ³⁸ (2015)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	NA	Yes	Moderate
Freemantle et al. ³⁹ (2013)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	NA	Yes	Low
Han and Wan ¹⁶ (2012)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Low
Murad et al. ⁴⁰ (2012)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	High
Hopkins et al. ⁴² (2011)	Yes	No	Yes	Yes	Yes	Yes	Yes	Partial yes	No	No	Yes	Yes	No	NA	NA	Yes	Critically low
Vestergaard et al. ⁴¹ (2011)	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	NA	NA	Yes	NA	NA	Yes	Low
MacLean et al. ⁴³ (2008)	Yes	Yes	Yes	Yes	No	Yes	Yes	Partial yes	Yes	No	NA	NA	Yes	NA	NA	Yes	Moderate
Trevisani et al. ¹⁸ (2008)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	NA	Yes	Critically low
Vestergaard et al. ¹⁹ (2007)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Critically low
Cranney et al. ⁴⁴ (2006)	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	NA	NA	Yes	NA	NA	Yes	Low

*NA = not applicable. †Quality assessment items: Item 1 = Did the research questions and inclusion criteria for the review include the components of PICO? Item 2 = Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol? Item 3 = Did the review authors explain their selection of the study designs for inclusion in the review? Item 4 = Did the review authors use a comprehensive literature search strategy? Item 5 = Did the review authors perform study selection in duplicate? Item 6 = Did the review authors perform data extraction in duplicate? Item 7 = Did the review authors provide a list of excluded studies and justify the exclusions? Item 8 = Did the review authors describe the included studies in adequate detail? Item 9 = Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review? Item 10 = Did the review authors report on the sources of funding for the studies included in the review? Item 11 = If meta-analysis was performed, did the review authors use appropriate methods for statistical combination of results? Item 12 = If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis? Item 13 = Did the review authors account for RoB in primary studies when interpreting/discussing the results of the review? Item 14 = Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review? Item 15 = If they performed quantitative synthesis, did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review? Item 16 = Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?