Reviewer A

Comment 1: I commend the authors for their efforts in this generally well-written narrative review, particularly within the word count. The authors have provided good justification/rationale for performing this narrative review which has the potential to make a helpful contribution to the knowledge base and, as highlighted by the authors, provide a useful, succinct source of data to practitioners.

Reply 1: We thank the reviewer for this positive comment.

Changes in the text: N/A

Comment 2: The methods are clearly and systematically explained within the main text and Table 1, and the inclusion of the search strategy in Table S1 all serve to strengthen this narrative review. In light of the useful details already provided when describing the methods used, it might be worth including whether/how methodological quality of studies was assessed. Although this aspect is not always reported in narrative reviews, given that this paper is intended to be a resource for practitioners, I would suggest either reporting this, or address this as a limitation if it was not done.

Reply 2: We agree with the reviewer that it should be included whether the methodological quality of studies was assessed.

Changes in the text: Because the quality was not methodologically assessed, we included this as a limitation in the study (see Page 15, Lines 331-333).

Comment 3: Since the article provides a good, comprehensive overview of the efficacy of the various medications discussed, I would recommend explicitly stating this in section 1.3 (Objective). This would then make it clearer how this specific work is addressing the gap in the literature. Section 3.3.3 provides some useful comparisons between first- and second-line treatment and again, I would suggest adding this as an objective so that readers are clear that this comparative element will be included in the narrative review.

Reply 3: The reviewer suggests a beneficial addition to the manuscript and we edited the manuscript to reflect these improvements.

Changes in the text: We included these objectives in section 1.3 (see Page 4, Lines 78-80).

Comment 4: A major issue that needs addressing is that it is unclear in some places as to whether the attention of the paper is predominantly on senile osteoporosis, or post-

menopausal osteoporosis, or more generally individuals with any type of osteoporosis. A good distinction between senile osteoporosis and post-menopausal and secondary osteoporosis is communicated in the abstract (line 22-24). Furthermore, the abstract explicitly states that the authors will review and summarize the literature regarding the presentation of senile osteoporosis and discuss pharmaceutical therapies (lines 25-26). This leads the reader to expect that the focus in the main article will therefore be on senile osteoporosis throughout, but this is not reflected when presenting most of the findings. Therefore, there needs to be more consistency in the main manuscript. For example, in section 3.3.1.2, line 134, Alendronate is described in relation to postmenopausal osteoporosis, not senile osteoporosis. Section 3.4 and the conclusion (section 4) then returns the focus to senile osteoporosis. If senile osteoporosis is going to be the focus, then this should be tightened up throughout the article and this could be promoted as a novel aspect of this work. If not, and the narrative review is intending to describe the pharmaceutical management of different "types" of osteoporosis, the abstract and conclusion should be amended to reflect this more clearly.

Reply 4: We agree that the abstract and conclusion should specify if the review is centered around a specific subset of osteoporosis or more general. Given the relative lack of literature and data on the efficacy of treatments of senile osteoporosis, we reworded the abstract and conclusion to reflect the overall theme of general osteoporosis treatment instead of senile osteoporosis.

Changes in the text: Various parts of the review were modified to reflect a focus on general osteoporosis, rather than specifically senile osteoporosis (see Page 2, Lines 23-27; Pages 15-16, Lines 340-353).

Comment 5: Whilst well-written, the conclusion does not restate the main points of the article and instead draws findings together specifically relating to senile osteoporosis. This is confusing for the reader when the main body of the article has provided an overview of pharmaceutical management of osteoporosis more generally (and in some cases postmenopausal osteoporosis), not specifically senile osteoporosis. Moreover, the conclusion introduces new ideas that have not been addressed elsewhere in the article, e.g., bracing devices for fracture recovery, and the development of devices and interventions to minimize the complications and burdens of living with senile osteoporosis. Should the authors wish to refocus the article on specifically the pharmaceutical management of senile osteoporosis, then these points would be well-placed in the main body.

Reply 5: We agree that the conclusion should restate the main points of the article and have made the appropriate changes.

Changes in the text: The conclusion was edited to include the efficacy of various medications (see Pages 15-16, Lines 340-353).

Comment 6: If senile osteoporosis is the focus, there may also be some merit in briefly framing some of the pros and cons of pharmaceutical management in the context of age-related issues. This may include the impact of medicine regimens amid possible co-morbidities affecting older people; the impact of travelling to receive some treatments that need to be administered by a healthcare professional (e.g., zoledronate; denosumab) which may be more challenging for older people etc. Similarly, in lines 140-142, when discussing the two types of administration for alendronate, the authors could possibly elaborate a bit on how/why the once-weekly regimen may be more suitable specifically for older people. Additionally, it would then also be useful to have section 3.3.3 compare first and second line treatments in relation to older people with senile osteoporosis.

Reply 6: We agree with the importance of discussing the benefits and drawbacks to different medication regimens in various populations. Because the paper has been edited to be more general rather than specifically about senile osteoporosis, we did not go in depth into these pros and cons.

Changes in the text: We mentioned the potential pros and cons of the regimens in section 3.3.3 (see Page 13, Lines 285-292).

Other comments:
Comment 7: Line 100- NOF recommendations for BMD testing- should refer to Table 2, not Table 1.- Line 103- would be useful to have a definition of osteopenia and how this differs from osteoporosis.

Reply 7: We thank the reviewer for these suggestions.

Changes in the text: We have corrected the reference to the table (see Page 6, Line 123) and specified how osteopenia differs from osteoporosis (see Page 6, Lines 126-128).

Comment 8: Line 108- This section should be numbered "3.3.1.1"
Reply 8: We thank the reviewer for pointing this out.
Changes in the text: We have edited the section numbering (see Page 7, Line 135).

Comment 9: Lines 127- 130 – there is no reference to side effects such as the risk of atypical femoral fractures associated with long-term bisphosphonates use or the risk of osteonecrosis of the jaw for IV bisphosphonates. Although these are rare side effects, I would suggest that they need to be included in such a review.

Reply 9: We agree these rare side effects should be included.

Changes in the text: These additional side effects were added (see Page 8, Lines 158-163).

Comment 10: Table 1- with regards to Selection process, it would be good to indicate how consensus was obtained

Reply 10: We agree with the importance of indicating this aspect of the Selection process.

Changes in the text: We amended the text to include this aspect (see Pages 25-26, Line 564)

Comment 11: Line 29 suggests that "hormone therapy" was used as a search term, whilst line 70 suggests that "osteoporosis pharmacotherapy" was a search term, but I could not find these listed in Table 1 and/or Table S1.

Reply 11: We thank the reviewer for bringing this discrepancy to our attention.

Changes in the text: We revised the text appropriately (see Page 2, Line 30; see Page 5, Line 90).

Reviewer B

1. Ref 68 was cited right after Ref 61. Please renumber the references to meet the consecutive order.

    a. We edited the manuscript to reflect the numbering of sources with the table at the end of the manuscript (Lines 295-321, 540-574, 632)

2. Table 3 should be cited in the Main Text.

    a. Table 3 was cited in Lines 172-173.

3. "A 2010 study reported a 10.3% prevalence of osteoporosis among Americans 50 years or older, equating to 10.2 million people, with an additional 43.4 million experiencing low bone mass (1)."

Please check the accuracy of the year mentioned in the above sentence.

    a. We changed the date to reflect the year when the study was published (Line 61).