Appendix

To provide greater transparency into our evaluation, Table A and B below presents the sub-scores for each of the four main scoring categories: *Dataset Quality, Performance, Clinical Applicability,* and *Technical Rigor,* for every study included in our review. These categories and their point allocations were adapted directly from the framework outlined in **Table 3** of the manuscript. Each study's final score is computed by summing its respective sub-scores across all four categories. Breaking out the sub-scores helps illustrate which aspects of a given study contributed most strongly to its overall performance and which areas may warrant further development. Please note that within each category, multiple sub-criteria were assessed (e.g., sample size, data quality, validation strategy in *Dataset Quality*; methodological comprehensiveness, reproducibility, and error analysis in *Technical Rigor*). Where relevant, these sub-criteria and their point distributions appear in **Table 3**.

Table A. Detailed Scoring Breakdown of Studies Focusing on OA

First Author	Dataset Quality	Performance	Clinical	Technical	Final Score
Namiri	21	25	22	25	93
Khalid	23	22	23	24	92
Tiulpin	23	21	23	24	91
Wang	21	23	22	23	89
von Schacky	21	22	22	23	88
Muhammad	21	21	22	24	88
Yoon	20	22	22	23	87
Salis	19	21	22	24	86
Guan	19	21	22	23	85
Xu	19	20	23	22	84
Bayramoglu	19	20	23	21	83
Guan	20	19	22	22	83
Almhdie-Imjabbar	20	19	21	22	82
Pedoia	17	23	18	24	82
Jang	20	19	22	21	82
Hu	20	18	21	22	81
Leung	20	19	21	21	81
Chang	17	21	19	23	80
Kinger	20	20	20	20	80
Li	20	20	20	19	79
Lee	21	20	19	19	79
Daneshmand	19	20	20	19	78
Norman	20	20	19	19	78
Brahim	18	20	19	20	77
Joseph	19	20	19	19	77
Costello	19	20	19	18	76
Su	17	21	18	20	76
Ntakolia	19	19	19	18	75

Notes: The aim of this table is to provide greater clarity regarding the scores provided in Table 4 of the manuscript (n=28, total OA studies included).

Table B. Detailed Scoring Breakdown of Studies Focusing on Osteoporosis

Author	Dataset Quality	Performance	Clinical	Technical	Final Score
Lehman	22	23	22	23	90
Cross	19	23	22	24	88
Chang	22	23	20	20	85
Dong	21	22	20	20	83
Zhang	15	18	16	17	66

Notes: The aim of this table is to provide greater clarity regarding the scores provided in Table 5 of the manuscript (n=5, total osteoporosis studies included).