# APPENDIX

## Appendix Table 1. Search Strategy

| Search Strategy | **Embase** | **PubMed Central®** |
|-----------------|------------|---------------------|
| 1.               | ‘hallux rigidus’ | ((Hallux rigidus) OR (arthritis AND first metatarsophalangeal joint) OR (arthritis AND MTP joint)) AND ((interposition AND arthroplasty) OR (spacer) OR (joint capsule) OR ((medial) OR (dorsal)) AND capsule) OR (extensor hallucis brevis) OR (allograft) OR (autograft) OR (matrix) OR (implant) OR (cartiva) OR (biologics)) |
| 2.               | arthritis   | arthritis           |
| 3.               | ‘first metatarsophalangeal joint’ | ‘first metatarsophalangeal joint’ |
| 4.               | #2 and #3   | #2 and #3           |
| 5.               | first AND mtp AND joint | first AND mtp AND joint |
| 6.               | #2 and #5   | #2 and #5           |
| 7.               | ‘interpositional arthroplasty’ | ‘interpositional arthroplasty’ |
| 8.               | ‘interposition arthroplasty’ | ‘interposition arthroplasty’ |
| 9.               | spacer      | spacer              |
| 10.              | joint AND capsule | joint AND capsule |
| 11.              | extensor AND hallucis AND brevis | extensor AND hallucis AND brevis |
| 12.              | allograft   | allograft           |
| 13.              | autograft   | autograft           |
| 14.              | matrix      | matrix              |
| 15.              | implant     | implant             |
| 16.              | cartiva     | cartiva             |
| 17.              | biologics   | biologics           |
| 18.              | medial AND capsule | medial AND capsule |
| 19.              | dorsal AND capsule | dorsal AND capsule |
| 19.              | #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 | #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 |
| 20.              | #1 OR #4 OR #6 | #1 OR #4 OR #6 |
| 21.              | #19 AND #20 | #19 AND #20 |

Number of Papers Retrieved

- **Embase**: 289 Papers
- **PubMed Central®**: 267 Papers
### Appendix Table 2. Modified Coleman Methodology Scale

| Item No. | Item and Answer                                                                 | Score |
|----------|---------------------------------------------------------------------------------|-------|
|          | **Part A**                                                                       |       |
| 1        | Study size; procedures (n)                                                      |       |
| 1        | <30                                                                             | 0     |
| 1        | 30 to 50                                                                        | 4     |
| 1        | 51 to 100                                                                       | 7     |
| 1        | >100                                                                            | 10    |
| 2        | Mean Follow-up (mo.)                                                            |       |
| 2        | <12                                                                             | 0     |
| 2        | 12 to 36                                                                        | 4     |
| 2        | 37 to 60                                                                        | 7     |
| 2        | >60                                                                             | 10    |
| 3        | Operative Approach                                                              |       |
| 3        | Different approaches used; outcomes not reported separately                      | 0     |
| 3        | Different approaches used; outcomes separately reported                          | 7     |
| 3        | Single approach used                                                             | 10    |
| 4        | Study Type                                                                       |       |
| 4        | Case-series (Level IV)                                                          | 0     |
| 4        | Case-control study (Level III)                                                  | 5     |
| 4        | Retrospective comparative study (Level III)                                      | 5     |
| 4        | Prospective comparative study (Level II)                                        | 10    |
| 4        | Randomized control trial (Level I)                                              | 20    |
| 5        | Operative Technique Description                                                  |       |
| 5        | Inadequate (not stated, unclear)                                                 | 0     |
| 5        | Fair (technique only stated)                                                     | 5     |
| 5        | Adequate (technique stated, operative procedure details given)                  | 10    |
| 6        | Postoperative Rehabilitation Description                                          |       |
| 6        | Described                                                                      | 5     |
| 6        | Not Described                                                                  | 0     |
|          | **Part B**                                                                       |       |
| 1        | Outcome Criteria                                                                |       |
| 1        | Outcome measures clearly defined                                                | 2     |
| 1        | Outcome assessment timing clearly stated                                        | 2     |
| 1        | Use of outcome measure with reported reliability                                | 3     |
| 1        | General health measure included                                                 | 3     |
| 2        | Procedure for Assessing Outcomes                                                |       |
| 2        | Subjects recruited (data not pulled entirely from patient chart)                | 5     |
| 2        | Investigator independent of surgeon                                             | 4     |
| 2        | Written assessment                                                              | 3     |
| 2        | Completion of assessment by patients with minimal investigator assistance        | 3     |
| 3        | Description of Subject Selection Process                                        |       |
| 3        | Selection criteria reported and unbiased                                        | 5     |
| 3        | Recruitment rate reported                                                       |       |
| 3        | >90%                                                                            | 5     |
| 3        | <90%                                                                            | 0     |

† Only one score per section permitted in Part A
†† Score permitted for each selection in Part B