

**Supplementary Table S1:** Detailed search strategy

Knee	Cartilage variations	Cartilage to implant variations	Defect variations	MSC or ACI variations	Implant variations	Investigation variations	
1) Knee	2) Chondral 3) Cartilage 4) Articular 5) 2 OR 3 OR 4	6) Cartilage- cartilage 7) Cartilage to cartilage 8) Cartilage- implant 9) Cartilage to implant 10) 6 OR 7 OR 8 OR 9	11) Disease 12) Defect 13) Damage 14) Lesion 15) 11 OR 12 OR 13 OR 14	16) Mesenchymal stem cell 17) MSC 18) Bone marrow-derived or bone marrow derived or BM-derived or BM derived 19) Adipose-derived or adipose derived or ASC 20) Blood-derived or blood derived or peripheral blood-derived or PBSC or PBMSC 21) Autologous chondrocyte implantation 22) ACI 23) P-ACI or periosteum covered ACI or first- generation ACI 24) C-ACI or collagen membrane ACI or second- generation ACI 25) M-ACI or type I and III collagen membrane ACI or membrane ACI or third generation ACI 26) 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25	27) Implant 28) Scaffold 29) Graft 30) Inject 31) 27 OR 28 OR 29 OR 30	32) Interface 33) Integration 34) Histology 35) Arthroscopy 36) MRI or magnetic resonance imaging 37) 32 OR 33 OR 34 OR 35 OR 36	38) 1 AND 5 AND 10 AND 15 AND 26 AND 31 AND 37