

Appendix 1

Study Selection

The study selection process was carried out by two independent reviewers and entailed a screen of the articles obtained through the database and bibliography searches to identify the studies that met the predetermined inclusion and exclusion criteria. Any study identified by either reviewer was included.

Inclusion Criteria:

- Human knee (patient population), adult or juvenile forms
- Both magnetic resonance imaging (MRI) and arthroscopy were performed in the study
- Diagnostic validity of MRI compared with arthroscopy is reported or can be calculated from the data provided in the article (sensitivity, specificity, positive predictive value, negative predictive value, and correlative data)
- Details about the MRI sequences obtained and used for analysis must be reported
- Minimum of five subjects or specimens evaluated
- Full manuscript provided in English or translated

Exclusion criteria:

- Review, summary, or clinical commentary, case reports
- Intervention and/or treatment studies
- Cadaveric specimens
- Pathology other than articular cartilage defects (inflammatory arthritis, infection, osteonecrosis, chondrocalcinosis, pigmented villonodular synovitis, chondral defects following a surgical

treatment, and osteochondral lesions resulting from osteonecrosis related to chemotherapy or steroid use)

- Studies that described synthesized results of multiple joints, without breakdown of results specifically related to the knee

TABLE E-1 Methodological Questions Used to Appraise Quality of Studies*

Was there a clear question for the study to address with information about the test, setting, population, outcomes?
Was there a comparison with an appropriate reference standard?
Did all patients get the diagnostic test and reference standard?
Could the results of the test of interest have been influenced by the results of the reference standard?
Is the disease status of the tested population clearly described?
Were the methods for performing the test described in sufficient detail?
What are the results? (Sensitivity, specificity, and accuracy)
How sure are we about these results? (Could they have occurred by chance?)
Can the results be applied to patients and/or population of interest?
Can the test be applied to patients and/or population of interest?
Were all of the outcomes important to the population of interest? (Will it change patient management?)
What would be the impact of using this test on our population?

*Methodological quality checklist was modified from: Jaeschke R, Guyatt G, Sackett DL. Users' guides to the medical literature, III. How to use an article about a diagnostic test. A. Are the results of the study valid? Evidence-Based Medicine Working Group. JAMA. 1994 Feb 2;271(5):389-91.