Name of Policy:
Disposable Arthroscopy

Policy #: 292
Category: Surgery

Latest Review Date: October 2009
Policy Grade: Active Policy but no longer scheduled for regular literature reviews and updates.

Background/Definitions:
As a general rule, benefits are payable under Blue Cross and Blue Shield of Alabama health plans only in cases of medical necessity and only if services or supplies are not investigational, provided the customer group contracts have such coverage.

The following Association Technology Evaluation Criteria must be met for a service/supply to be considered for coverage:
1. The technology must have final approval from the appropriate government regulatory bodies;
2. The scientific evidence must permit conclusions concerning the effect of the technology on health outcomes;
3. The technology must improve the net health outcome;
4. The technology must be as beneficial as any established alternatives;
5. The improvement must be attainable outside the investigational setting.

Medical Necessity means that health care services (e.g., procedures, treatments, supplies, devices, equipment, facilities or drugs) that a physician, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury or disease or its symptoms, and that are:
1. In accordance with generally accepted standards of medical practice; and
2. Clinically appropriate in terms of type, frequency, extent and duration and considered effective for the patient’s illness, injury or disease; and
3. Not primarily for the convenience of the patient, physician or other health care provider; and
4. Not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient’s illness, injury or disease.
**Description of Procedure or Service:**
Arthroscopy is an invasive procedure that is performed to substantiate a diagnosis of intra-articular joint pathology, and to surgically treat such pathology.

Disposable arthroscopy is usually performed in an office setting and uses a small, flexible, disposable arthroscope that is 1.6-1.7 mm in diameter. It operates with a fiber optic system. The articular contents are viewed via video equipment and a television monitor.

This device is intended to permit arthroscopy, mostly for the knee, in an office setting under local anesthesia.

The Inner Vue™ Diagnostic Scope System uses a small disposable diagnostic scope (outside diameter = 1.2 mm) with a single puncture wound. It provides digital images and can be used in place of or in conjunction with MRI.

The Micronix™ Surgical Corporation has a disposable micro-endoscope that is used by orthopedic surgeons who perform minimally invasive arthroscopy of the knee and other small joints.

**Policy:**
**Effective for dates of service on or after October 14, 2006:**
Disposable arthroscopy and/or needle arthroscopy used as a procedure to evaluate intra-articular joint pathology does not meet Blue Cross and Blue Shield of Alabama’s medical criteria for coverage and is considered investigational.

*Blue Cross and Blue Shield of Alabama does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Cross and Blue Shield of Alabama administers benefits based on the members' contract and corporate medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.*

**Key Points:**
There are a few published studies that have compared the use of the smaller arthroscope to conventional arthroscopy in an office setting to evaluate the knee joint or other joints. All of the studies were small groups and the authors noted limitations of the smaller scopes. Some of these articles are summarized below.

Ike, et al (1993), compared needle arthroscopy with standard arthroscopy to detect intra-articular abnormalities in osteoarthritis (OA). Ten patients (18 menisci) with knee OA had needle arthroscopy followed by standard arthroscopy. The results were the same for both techniques: 6 abnormal and 12 normal. There were 54 articular cartilage sites graded by both procedures; 38 were abnormal by standard arthroscopy and 34 of 38 (89%) were abnormal by needle scope.
Both procedures showed cartilage changes were the same at 42 of 54 sites (78%); changes at the other 12 sites were 1 grade higher by standard arthroscopy than by needle scope. There were 51 areas of the synovium graded by both procedures; 34 were abnormal by standard arthroscopy and 24 of 34 (71%) were abnormal by needle scope. Both procedures showed the remaining 17 sites were normal. Both procedures gave the same macroscopic score in 27 of 51 areas (53%) and standard arthroscopy gave a higher grade in 15 of 16 other areas. The authors noted several limitations of this study. The use of general or regional anesthesia which helps with muscle relaxation in 9 of 10 patients may have facilitated visualization by the needle scope that may not be the same as using local anesthesia in an office setting. The video image generated by the needle scope was never as sharp and clear as that transmitted by the standard scope.

Denti, et al (1994), compared the diagnostic efficiency of the Optical Catheter System (OCS), which uses a 1.7 mm arthroscope, with that of conventional arthroscopy. Fifty patients (age 17-73 years) underwent arthroscopy with the OCS followed by conventional arthroscopy. The accuracy of the OCS system was 98% for anterior cruciate ligament (ACL) lesions, 92% for medial meniscus lesions, 98% for lateral meniscus lesions, and 96% for cartilage disorders. There were 5 false negatives (due to excessive bleeding and peripheral meniscal tears not diagnosed) and 2 false positives (due to a diagnosis of patellar chondromalacia from superposition of the synovial membrane). The authors concluded that conventional arthroscopy is still the more reliable diagnostic method and that OCS should only be done by expert arthroscopists in a small number of patients.

Meister, et al (1996), reported on a prospective, randomized study that compared a standard rod-lens arthroscope with the newer optical catheter fiber optic system. Forty-four patients underwent arthroscopic evaluation of the knee using both procedures under general anesthesia. The results showed an overall underestimation and under-recognition of intra-articular knee pathologic changes by the optical catheter system. For ACL tears, the optical catheter system missed 3 of 21 tears (86% sensitivity, 96% specificity, 91% accuracy) and gave one false positive result (98% specificity). Evaluation for tears of the medial and lateral menisci, chondral lesions, and identifying loose bodies had similar results for the optical system: 25-67% sensitivity, 96-99% specificity. The authors concluded that using the optical system to evaluate the knee in the office setting may result in a significant compromise in visual acuity, resulting in missed and incorrect diagnoses.

August 2007 Update
No new peer-reviewed published literature was located that would alter the coverage statement of the policy.

March 2009 Update
No new peer-reviewed published literature was located that would alter the coverage statement of this policy.

Key Words:
Arthroscopy, disposable arthroscopy, needle arthroscopy, InnerVue™, optical catheter system
Approved by Governing Bodies:
Not applicable

Benefit Application:
Coverage is subject to member’s specific benefits. Group specific policy will supersede this policy when applicable.

ITS: Home Policy provisions apply
FEP contracts: FEP does not consider investigational. Will be reviewed for medical necessity
Pre-certification requirements: Not applicable
Pre-determination requirements: Not applicable

Coding:
CPT Codes:  
29800  Arthroscopy, temporomandibular joint, diagnostic, with or without synovial biopsy (separate procedure)
29805  Arthroscopy, shoulder, diagnostic, with or without synovial biopsy (separate procedure)
29830  Arthroscopy, elbow, diagnostic, with or without synovial biopsy (separate procedure)
29840  Arthroscopy, wrist, diagnostic, with or without synovial biopsy (separate procedure)
29870  Arthroscopy, knee, diagnostic, with or without synovial biopsy (separate procedure)

References:

Policy History:
Medical Policy Group, August 2006 (3)
Medical Policy Administration Committee, August 2006
Available for comment August 30-October 13, 2006
Medical Policy Group, March 2009 (4)
Medical Policy Group, October 2009 (4): Active Policy but no longer scheduled for regular literature reviews and updates.
This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member’s plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield’s administration of plan contracts.