



Corporate Medical Policy

Computer Assisted Surgical Navigational Orthopedic Procedures

File Name: computer_assisted_surgical_navigational_orthopedic_procedures
Policy Number: SUR6165
Origination: 10/2004
Last Review: 5/2007
Next Review: 5/2009

Description of Procedure or Service

The term "computer assisted musculoskeletal surgical navigational orthopedic procedure" describes navigational systems that provide additional information during a procedure that attempt to further integrate preoperative planning with intraoperative execution. Navigation involves three steps described below: data acquisition, registration, and tracking.

I. Data Acquisition

As described by the three new 2004 CPT category III codes, data can be acquired in three different ways, i.e. fluoroscopic, CT/MRI guided or imageless systems. This data is then used for registration and tracking, described below. Image guided systems are somewhat self explanatory. The image-less systems rely on other information such as centers of rotation of the hip knee, or ankle, or visual information like anatomical landmarks.

II. Registration

Registration refers to the ability of relating images (i.e. x-rays, CT, MRI or patients' 3-D anatomy) to the anatomical position in the surgical field. Early registration techniques required the placement of pins or "fiducial markers" in the target bone. This required an additional surgical procedure. More recently, a surface matching technique can be used in which the shapes of the bone surface model generated from preoperative images are matched to surface data point collected during surgery.

III. Tracking

Tracking refers to the sensors and measurement devices that can provide feedback during surgery regarding the orientation and relative position of tools to bone anatomy. For example, optical or electromagnetic trackers can be attached to regular surgical tools which can then provide real time information of the position and orientation of the tools' alignment with respect to the bony anatomy of interest.

The most commonly performed orthopedic computer assisted surgeries appear to be as an adjunct to fixation of pelvic, acetabular or femoral fractures, and as an adjunct to hip and knee arthroplasty procedures.

Surgical navigations systems require FDA clearance, but generally are subject only to 510(k) clearance since computer assisted surgery is considered analogous to a surgical information system in which the surgeon is only acting on the information that is provided by the navigation system. As such, the FDA does not require data documenting the intermediate or final health outcomes associated with computer assisted surgery. A variety of surgical navigational procedures have received FDA clearance through the 510(k), and in general the labeled indications are very broad.

Policy: Computer Assisted Surgical Navigational Orthopedic Procedures

Policy

BCBSNC does not provide coverage for Computer Assisted Surgical Navigational Orthopedic Procedures of the pelvis and appendicular skeleton. It is considered investigational. BCBSNC does not provide coverage for investigational services.

Benefits Application

Please refer to Certificate for availability of benefits. This policy relates only to the services or supplies described herein. Benefits may vary according to benefit design, therefore certificate language should be reviewed before applying the terms of the policy.

When Computer Assisted Surgical Navigational Orthopedic Procedures are covered

Not applicable.

When Computer Assisted Surgical Navigational Orthopedic Procedures are not covered

BCBSNC does not provide coverage for Computer Assisted Surgical Navigational Orthopedic Procedures. It is considered investigational. BCBSNC does not provide coverage for investigational services.

Policy Guidelines

There are inadequate data to permit scientific conclusions regarding computer assisted surgery for orthopedic surgery of the pelvis and appendicular skeleton.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: 20985, 0054T, 0055T

Codes are intended to be used in addition to the code for the primary procedure.

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Policy: Computer Assisted Surgical Navigational Orthopedic Procedures

Policy Key Words

Key Words: SUR6165, Computer assisted musculoskeletal surgical navigational orthopedic procedure, Navigation, Orthopedic procedure.

Medical Term Definitions

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.96, 2/25/04.

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.96, 4/25/06

Ontario Health Technology Advisory Committee (OHTAC) Ministry of Health and Long-term Care. Medical Advisory Secretariat (March 2004). Computer assisted Hip and Knee Arthroplasty: navigation and robotic systems. Retrieved 2/15/07 from http://www.health.gov.on.ca/english/providers/program/mas/tech/reviews/sum_arthro_020104.html

Centers for Medicare and Medicaid Services. Summary report: ICD-9-CM Coordination and Maintenance Committee (April 2004). Computer-assisted Surgery (CAS). Retrieved 2/15/07 from <http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/Downloads/icd040104.pdf>

Policy Implementation/Update Information

10/28/04 New Policy issued. Computer-assisted surgical navigational orthopedic procedures are considered investigational. Reference added.

6/2/2005 Specialty Matched Consultant Advisory Panel review on 5/23/2005. Policy statement revised to include phrase (noted in []) that computer assisted navigational orthopedic procedures [of the pelvis and appendicular skeleton] are considered investigational and not covered. No other changes made. Reference added.

6/18/07 References updated. Specialty Matched Consultant Advisory Panel review 5/18/07. No changes to policy coverage criteria.

12/31/07 Coding Update. CPT Codes 0054T, 0055T and 0056T have been replaced with 20985, 20986, 20987.

01/05/09 CPT codes 20986 and 20987 deleted. Added codes 0054T and 0055T.

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.