02-20000-30

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Reviewed: 06/22/23

Revised: 07/15/23

Subject: Computer-Assisted Navigation for Orthopedic Procedures

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

Position Statement	Billing/Coding	Reimbursement	Program Exceptions	Definitions	Related Guidelines
Other	References	Updates			

DESCRIPTION:

Computer-assisted navigation (CAN) in orthopedic procedures describes the use of computer-enabled tracking systems to facilitate alignment in a variety of surgical procedures, including fixation of fractures, ligament reconstruction, osteotomy, tumor resection, preparation of the bone for joint arthroplasty, and verification of the intended implant placement.

CAN devices may be image-based or non-image based. Image-based devices use preoperative computed tomography (CT) scans and operative fluoroscopy to direct implant positioning. Newer non-image based devices use information obtained in the operating room, typically with infrared probes. For total knee arthroplasty, specific anatomic reference points are made by fixing signaling transducers with pins into the femur and tibia. Signal emitting cameras (e.g., infrared) detect the reflected signals and transmit the data to a dedicated computer. During the surgery, multiple surface points are taken from the distal femoral surfaces, tibial plateaus, and medial and lateral epicondyles. The femoral head center is typically calculated by kinematic methods that involve movement of the thigh through a series of circular arcs, with the computer producing a 3-dimensional model that includes the mechanical, transepicondylar and tibial rotational axes. CAN systems direct the positioning of the cutting blocks and placement of the prosthetic implants based on the digitized surface points and model of the bones in space. The accuracy of each step of the operation (cutting block placement, saw cut accuracy, seating of the implants) can be verified, thereby allowing adjustments to be made during surgery.

Because CAN is a surgical information system in which the surgeon is only acting on the information that is provided by the navigation system, surgical navigation systems generally are subject only to 510(k) clearances from the U.S. Food and Drug Administration (FDA). As such, the FDA does not require data documenting the intermediate or final health outcomes associated with CAN. (In contrast, robotic

procedures, in which the actual surgery is robotically performed, are subject to the more rigorous requirement of the premarket approval application process.) A variety of surgical navigation procedures have received FDA clearance through the 510(k) process with broad labeled indications.

POSITION STATEMENT:

Note: This policy does not address cranial or spinal procedures.

Computer-assisted surgical navigation for orthopedic procedures is considered **experimental or investigational**. The evidence is insufficient to determine the effects of the procedure on health outcomes.

BILLING/CODING INFORMATION:

CPT Coding

20985	Computer-assisted surgical navigational procedure for musculoskeletal procedures; image-less (List separately in addition to code for primary procedure) (**Investigational**)

HCPCS Coding

0054T	Computer-assisted musculoskeletal surgical navigational orthopedic procedure, with image-guidance based on fluoroscopic images (List separately in addition to code for primary procedure) (**Investigational**)
0055T	Computer-assisted musculoskeletal surgical navigational orthopedic procedure, with image-guidance based on CT/MRI images (List separately in addition to code for primary procedure) (**Investigational**)

REIMBURSEMENT INFORMATION:

Refer to section entitled **POSITION STATEMENT**.

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products: No National Coverage Determination (NCD) and/or Local Coverage Determination (LCD) was found at the time of the last guideline reviewed date.

DEFINITIONS:

No guideline specific definitions apply.

RELATED GUIDELINES:

Computer Assisted Surgical Navigation, 02-99221-14

OTHER:

None Applicable.

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COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 06/22/23.

GUIDELINE UPDATE INFORMATION:

07/15/04	New Medical Coverage Guideline.
01/01/05	HCPCS update; 0055T revision.
07/15/05	Annual review; no change.
06/15/06	Annual review; no change in investigational status.
06/15/07	Annual review; investigational status maintained; reformatted guideline; references updated.
01/01/08	2008 HCPCS update: deleted 0054T, 0055T, and 0056T; Added 20985, 20986, 20987.
07/15/08	Annual review: position statement maintained, Description section and references updated.
01/01/09	Annual HCPCS coding update: added codes 0054T & 0055T; deleted codes 20986 and 20987.
06/15/09	Annual review: position statement maintained and references updated.
11/15/10	Annual review: position statement maintained and references updated.
09/15/11	Scheduled review; position statement maintained and references updated.
10/15/12	Annual review; position statement maintained and references updated.
09/15/13	Annual review; position statement maintained and references updated.

09/15/14	Annual review; position statement maintained, description section and references updated.
10/15/15	Annual review; position statement maintained, references updated.
04/15/17	Revision; Investigational position statement maintained, description section and references updated.
07/15/18	Review; position statement maintained; description and references updated.
08/15/19	Review; position statement maintained and references updated.
06/15/20	Review; Investigational position maintained and references updated.
07/15/21	Review; Position statement, coding, and references updated.
10/15/22	Revision: coding section updated.
07/15/23	Review: Position statement maintained; references updated.