Reporting Manual Preparation and Insertion or Removal of Musculoskeletal Drug-Delivery Devices

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Prior to 2020, the Current Procedural Terminology (CPT®) codes for the insertion (11981), removal (11982), and removal with reinsertion (11983) of nonbiodegradable drug-delivery devices were described in generic and general terms. Many medical specialty societies reported these codes and the differences in the amount and intensity of work were significant. For example, because infection is one of the most common, potential complications in musculoskeletal procedures, including total joint arthroplasty (TJA), physicians specializing in orthopedics were the principal reporters of these codes. Therefore, codes 20700-20705 were established in the CPT 2020 code set to more accurately delineate the use of drug-delivery devices in orthopedic surgery with treatment of actual or potential soft tissue-, bone-, and joint-related infections. This article discusses common orthopedic clinical scenarios when drug-delivery devices are implanted, and how to appropriately code these procedures.

Introduction or Removal

20700 Manual preparation and insertion of drug-delivery device(s), deep (eg, subfascial) (List separately in addition to code for primary procedure)

(Use 20700 in conjunction with 11010, 11011, 11012, 11043, 11044, 11046, 11047, 20240, 20245, 20250, 20251, 21010, 21025,

21026, 21501, 21502, 21510, 21627, 21630, 22010, 22015, 23030, 23031, 23035, 23040, 23044, 23170, 23172, 23174, 23180, 23182, 23184, 23334, 23335, 23930, 23931, 23935, 24000, 24134, 24136, 24138, 24140, 24147, 24160, 25031, 25035, 25040, 25145, 25150, 25151, 26070, 26230, 26235, 26236, 26990, 26991, 26992, 27030, 27070, 27071, 27090, 27301, 27303, 27310, 27360, 27603, 27604, 27610, 27640, 27641, 28001, 28002, 28003, 28020, 28120, 28122)

(Do not report 20700 in conjunction with 11981)

20701 Removal of drug-delivery device(s), deep (eg, subfascial) (List separately in addition to code for primary procedure)

(Use 20701 in conjunction with 11010, 11011, 11012, 11043, 11044, 11046, 11047, 20240, 20245, 20250, 20251, 21010, 21025, 21026, 21501, 21502, 21510, 21627, 21630, 22010, 22015, 23030, 23031, 23035,23040, 23044, 23170, 23172, 23174, 23180, 23182, 23184, 23334, 23335, 23930, 23931, 23935, 24000, 24134, 24136, 24138, 24140, 24147, 24160, 25031, 25035, 25040, 25145, 25150, 25151, 26070, 26230, 26235, 26236, 26990, 26991, 26992, 27030, 27070, 27071, 27090, 27301, 27303, 27310, 27360, 27603, 27604, 27610, 27640, 27641, 28001, 28002, 28003, 28020, 28120, 28122)

(Do not report 20701 in conjunction with 11982)

20702 Manual preparation and insertion of drug-delivery device(s), intramedullary (List separately in addition to code for primary procedure)

(Use 20702 in conjunction with 20680, 20690, 20692, 20694, 20802, 20805, 20838, 21510, 23035, 23170, 23180, 23184, 23515, 23615, 23935, 24134, 24138, 24140, 24147, 24430, 24516, 25035, 25145, 25150, 25151, 25400, 25515, 25525, 25526, 25545, 25574, 25575, 27245, 27259, 27360, 27470, 27506, 27640, 27720)

(Do not report 20702 in conjunction with 11981)

20703 Removal of drug-delivery device(s), intramedullary (List separately in addition to code for primary procedure)

(Use 20703 in conjunction with 20690, 20692, 20694, 20802, 20805, 20838, 21510, 23035, 23170, 23180, 23184, 23515, 23615, 23935, 24134, 24138, 24140, 24147, 24430, 24516, 25035, 25145, 25150, 25151, 25400, 25515, 25525, 25526, 25545, 25574, 25575, 27245, 27259, 27360, 27470, 27506, 27640, 27720)

(Do not report 20703 in conjunction with 11982)

20704 Manual preparation and insertion of drug-delivery device(s), intra-articular (List separately in addition to code for primary procedure)

(Use 20704 in conjunction with 22864, 22865, 23040, 23044, 23334, 24000, 24160, 25040, 25250, 25251, 26070, 26075, 26080, 26990, 27030, 27090, 27301, 27310, 27603, 27610, 28020)

(Do not report 20704 in conjunction with 11981, 27091, 27488)

20705 Removal of drug-delivery device(s), intra-articular (List separately in addition to code for primary procedure)

(Use 20705 in conjunction with 22864, 22865, 23040,23044, 23334, 24000, 24160, 25040, 25250, 25251, 26070, 26075, 26080, 26990, 27030, 27090, 27301, 27310, 27603, 27610, 28020)

(Do not report 20705 in conjunction with 11982, 23335, 27091, 27125, 27130, 27134, 27137, 27138, 27236, 27438, 27446, 27486, 27487, 27488)

Six add-on codes were established to report the manual preparation and insertion (20700, 20702, 20704) and removal (20701, 20703, 20705) of drug-

delivery devices. The parenthetical notes following each code list the primary procedure that may be reported, as well as exclusionary parenthetical notes.

In order to report the drug-delivery device implantation codes, a surgeon must manually prepare the drug-delivery device, such as antibiotic beads, in the operating room during the procedure. Use and insertion of commercially available premade beads would not qualify when reporting these codes because there is limited physician work when using beads prepared by a manufacturer. Therefore, insertion of commercially available premade beads is not separately reportable.

Reporting Scenarios

Code 20700 is reported for the manual preparation of a drug-delivery device that is implanted in a deep (eg, subfascial) space. For example, after removal of infected tissue and associated hardware from a prior musculoskeletal repair (separately reported), an antibiotic drug-delivery device is manually prepared and implanted into the resulting defect.

Code 20701 is reported for the removal of a nonbiodegradable drug-delivery device that was previously implanted in a deep (eg, subfascial) space. For example, after resolution of the deep infection, the wound is re-opened and the drug-delivery device is removed prior to performing a separately reportable repair of the defect and/or closure.

Code 20702 is reported for the insertion of a manually prepared drug-delivery device into the shaft of a long bone. For example, this code would be reported after treatment of an intramedullary infection of a long bone, such as the femur. The infected intramedullary nail would be removed and code 20680, Removal of implant; deep (eg,buried wire, pin, screw, metal band, nail, rod or plate, would be reported. In addition, the bone would be debrided, and an intramedullary antibiotic drug-delivery device would be inserted. Alternatively, if a bone were partially excised for infection (27071, 27360), a manually prepared drug-delivery device could be placed into the bone. If stemmed implants were removed from an infected TJA, an intramedullary drug-

delivery device could be inserted.

Code 20703 is reported for the removal of an intramedullary drug-delivery device that is nonbiodegradable. If no further reconstruction is required at the time of surgery and the removal of the device is the only procedure performed, report code 20680.

Code 20704 is reported for the insertion of an intra-articular drug-delivery device. This code may be reported for a native joint infection, as well as an infected TJA with component retention. This code is not intended to be reported with codes that include placement of a nonarticulating spacer, such as code 27091 or 27488.

Code 20705 is reported for the removal of an intra-articular drug-delivery device that is nonbiodegradable. Codes 20700-20705 do not specify whether the device is nonbiodegradable and therefore, are reported for both biodegradable and nonbiodegradable devices. Note that biodegradable insertion devices may not need to be removed.

Clinical Scenarios and TJAs

One of the common uses for musculoskeletal drug-delivery devices is for infected TJAs. Following are four common orthopedic clinical scenarios for treatment of TJA infections:

- Implant retention; joint debridement; modular exchange; and placement of resorbable antibiotic-eluting beads
- Implant removal; joint debridement; placement of a static antibiotic-eluting spacer; and placement of resorbable antibiotic-eluting beads
- Implant removal; joint debridement; placement of a mobile, articulating, antibiotic-eluting spacer; and placement of resorbable antibiotic-eluting beads

- Removal of an antibiotic-eluting spacer; re-implantation TJA with definitive implants; and placement of resorbable antibiotic-eluting beads

The CPT codes, code descriptors, coding guidance, and modifiers relevant to the treatment of infected TJAs are referenced in the following clinical scenarios.

Scenario 1a: Infected TJA; Irrigation and Debridement Only

A patient with an infected hip or knee TJA undergoes irrigation and debridement with retention of implants. When only irrigation is performed and there is no exchange of modular parts, it is appropriate to report code 27030 for arthrotomy of the hip or code 27310 for arthrotomy of the knee. If a manually prepared drug-delivery device is inserted into the joint, it is appropriate to report add-on code 20704. If the modular implants are revised, the correct revision code may be reported with or without code 20704.

Scenario 1b: Infected TJA; Revision Arthroplasty With Placement of Modular Articular Components

In most cases of TJA infection, existing TJA implants are removed and new TJA implants are inserted. This is known as revision arthroplasty. TJA implants are often modular, such as the head and liner for the hip or the articular insert for the knee. For these more common revisions, it is appropriate to code for a revision of a total hip arthroplasty (27134) or a single component revision of the knee arthroplasty (27486) using modifier 52, Reduced Services, appended. When only a single modular component of the hip arthroplasty is revised, report code 27137 or 27138 with modifier 52 appended for the isolated modular acetabular or femoral component revision, respectively. Existing intra-articular drug-delivery devices may be removed during these procedures and that service is an included component of the revision; therefore, it is not separately reportable.

If resorbable antibiotic-eluting beads are manually prepared separately at the time of surgery and inserted into the joint prior to closure, code 20704 may be reported in conjunction with the respective revision code.

Scenario 2: Complete Removal of an Infected TJA (Resection Arthroplasty) With Placement of an Intra-Articular Drug-Delivery Device as a Planned Staged Procedure

A patient undergoes resection of an infected TJA with the placement of a nonarticulating drug-delivery device. This procedure involves removal of all infected implants and associated foreign material, as well as comprehensive debridement of all the joint surfaces and canals that might be affected by the infection. The surgeon manually fashions an antibiotic-laden cement spacer intraoperatively and inserts the spacer into the joint defect to preserve the joint space. This may be a single piece of molded antibiotic cement, multiple pieces of cement, or cement with associated rebar material (eg, cement dowels, wires, pins). The defining feature of this spacer is that it is placed in such a way to prevent movement of the joint. In these instances, report the existing hip (27091) or knee (27488) codes to report total joint prosthesis removal and spacer placement. For both codes, the creation of the antibiotic spacer is inherent to the code, and the work of creating the spacer is included. Therefore, code 20704 may not also be reported for the spacer or beads, even if they are created and added to the joint prior to closure.

Scenario 3: Complete Joint Implant Replacement (Revision Arthroplasty or Articulating Spacers); May or May Not be Part of a Planned Staged Procedure

A patient undergoes resection of an infected TJA with the placement of mobile, articulating implants, either constructed from a cement mold or by using commercial implants. Infected implants are removed along with associated foreign material, and comprehensive debridement of the effective joint space and canals is performed. The surgeon performs a revision by freshening bony surfaces, restoring appropriate alignment, sizing implants, balancing gaps and tensioning of the soft tissues, and establishing joint stability. This procedure includes the work of removing a TJA and replacing it with a new, balanced, and functional arthroplasty allowing for range of motion and, at least, limited weight bearing (with or without the use of a brace) in the perioperative period. This procedure should be reported as a full-revision procedure for the hip (27134) or the knee (27487). If resorbable antibiotic-eluting beads are created separately at the time of surgery and then added to the joint before closure, code 20704 may also be reported. However, if a commercial antibiotic-impregnated articulating spacer is used, code 20704 is not reported because the physician did not manually prepare the device, which is a specific requirement for use of the musculoskeletal intra-articular drug-delivery device implant codes.

The crucial difference between revision and resection arthroplasty is that the work of revision requires freshening and preparing bony surfaces to receive well-fitting antibiotic-impregnated implants, restoring appropriate alignment, sizing implants, balancing gaps and tensioning of the soft tissues, and establishing joint stability to provide the patient with a mobile joint and a weight-bearing extremity.

Scenario 4: Staged or Delayed Removal of Intra-Articular Drug-Delivery Device(s)

Staged or delayed removal of intra-articular drug-delivery device(s) may be accompanied by implantation of prosthetic joint parts (eg, scenario 2) or secondary revision to remove joint parts (eg, scenario 3). Both are considered revision arthroplasties. During these procedures any intra-articular drug-delivery devices are removed, and thorough debridement of the joint space and intramedullary canals is repeated. The surgeon performs a complete revision by freshening bony surfaces, restoring appropriate alignment, sizing implants, maximizing implant fixation, addressing metaphyseal bone defects, balancing gaps, and tensioning of the soft tissues, and establishing joint stability. This procedure should be coded as a complete revision of the hip (27134) or knee (27487).

Note that when this secondary revision occurs within the assigned global period of the codes reported for the initial revision, modifier 58, Staged or Related Procedure or Service by the Same Physician or Other Qualified Health Care Professional During the Postoperative Period, must be appended to the reimplantation revision code to indicate it was a staged or planned procedure during the postoperative period.

If resorbable antibiotic-eluting beads are prepared separately at the time of surgery and added to the joint prior to closure, code 20704 may be reported in conjunction with the respective revision code.

Documentation of Drug-Delivery Implantation Codes

Accurate coding begins with clear documentation of not only the diagnosis(es) and indication(s) for surgery, but also the intraoperative work performed. Therefore, consider including those findings in the procedure note that led to the specific procedure being performed, such as the work uniquely describing a revision arthroplasty. To report these musculoskeletal intra-articular drug-delivery device implant codes, the operative note needs to state that the surgeon fabricated the drug-delivery device. In the case of an articulating spacer in which a joint revision code is reported (instead of one of the intra-articular drug-delivery codes), the operative note should include the bone resections and the balancing of the joint and ligaments to warrant the use of the revision code. If only modular parts are replaced, report modifier 52 to indicate reduced services for the appropriate revision TJA code.

