Dissecting the Operative Report for Accurate ICD-10-PCS Code Assignment

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The implementation of ICD-10-PCS has created new challenges in coding surgical procedures. While coding professionals have always been expected to read and interpret all surgical documentation, ICD-10-PCS has increased the level of understanding necessary for accurate code assignment.

There's been plenty of discussion about the importance of the biomedical sciences as it relates to coding in ICD-10-PCS. It has become apparent that the ability to dissect the operative report is equally as important in correct procedure code assignment.

This article will highlight examples of procedure reports and items that coding professionals should be aware of for correctly identifying which procedures to code or not code. There is a tendency among coding professionals to overcode after a meticulous review, since coding professionals are not accustomed to reading an operative report so carefully.

As coding professionals, knowledge of the ICD-10-PCS coding guidelines is critical to the accurate assignment of the principal procedure and all applicable secondary procedures. One particular set of guidelines to keep in mind is B3.2 Multiple Procedures. Often, the end result of further review of these four guidelines is an increase in the number of procedure codes assigned. Be careful with this, and all guidelines, to limit potential overcoding.

The documentation in the operative report should provide all necessary information to assign all seven characters of an ICD-10-PCS code. It will also identify any secondary procedures necessary in the accurate reporting process. Coding professionals cannot rely solely on a procedure title for code assignment. Rather, it is necessary to read the entire body of the report, looking to identify all codeable procedures as well as all elements for each procedure. As an added bonus, intraoperative complications are often found in the body of the operative report.

Procedure Example #1

Procedure Performed:

1. Bilateral decompressive laminectomies of L5, S1 levels
2. Placement of interbody device
3. Segmental instrumentation L5-S1 level
4. L5-S1 posterolateral interbody fusion
5. Bone marrow autograft through separate incision
6. Morcellized bony autograft

Indications: The patient is a 47-year-old female who presents with progressive worsening of bilateral leg pain, right worse than left, and excruciating axial mechanical back pain recalcitrant to conservative and interventional pain management techniques.

Description of Procedure: After consent was obtained, the patient was brought to the operating room. Perioperative antibiotics and general anesthesia were induced without difficulty. She was placed in the prone position onto the operating table and lumbosacral spine prepped and draped in the usual sterile fashion. Intraoperative fluoroscopy was obtained for verification of the level of interest. An approximately 4 cm linear incision made with a skin knife and centered over the L5 spinous process and advanced to the lumbosacral fascia with bilateral subperiosteal paraspinous muscle dissection. Retractors were advanced and bilateral decompressive laminectomies of L5 and S1 levels completed with sequential use of Leksell rongeur and 3 mm

and 4 mm Kerrison punches. Bilateral hemi-Gill procedures were performed. An interbody device measuring approximately 8 mm in lordotic fashion/banana cage from the Genesys Spinal Instrumentation System was prefilled with morcelized bony autograft intermixed with 3 obtained 9 mL of bone marrow autograft through a separate incision and put in place in the L5-S1 interspace under fluoroscopic guidance. Pedicle screws were placed in both L5 and S1 vertebrae also under fluoroscopic visualization and secured in place with titanium rods and setscrews. Torque wrench was applied. A 10-French Hemovac epidural drain was placed in the epidural space and tunneled appropriately. Irrigation was applied and retractors were removed and the wound closed with Vicryl sutures in a layered fashion, Steri-Strips, and Mastisol. A sterile dressing was applied. At the end of the procedure, all instrument counts were reported as correct x2. Patient was extubated and transferred to the post-acute care unit (PACU) in stable neurologic and hemodynamic condition moving all extremities with good strength and conversing appropriately.

Coding for Procedure Example #1

The description of the procedure performed indicates six procedures were done. With spinal fusions, however, some of the listed procedures are integral to the fusion itself and in this case, only two procedure codes are necessary. The laminectomies and instrumentation are included in the L5-S1 spinal fusion. The placement of the interbody device and bony autograft identify the device character for the fusion code, which is the interbody fusion device only. The procedures to be coded are the L5-S1 spinal fusion and the harvest of the autograft. In review of the body of the operative report, an intraoperative fluoroscopy is documented which should not be separately coded. The radiology procedure is integral to the fusion procedure. It's important to read the description of the procedure carefully to identify all codeable procedures.

There is advice in both Centers for Medicare and Medicaid Services' ICD-10-CM/PCS Guidelines for Coding and Reporting and the American Hospital Association's *Coding Clinic* publication related to spinal fusion procedures.

Procedure Example #2

Procedure Performed: Left carotid endarterectomy with Dacron patch angioplasty and indwelling shunt

Anesthesia: General

Indications and Findings: The patient status is post a right hemispheric middle cerebral artery infarct six weeks previously. She had been in the nursing home recovering at that time. She is left with left hemiparesis, with very little motion. In addition, she has an asymptomatic 90 percent left carotid artery stenosis. During the procedure, she has very poor backflow so a shunt was used during the procedure and she awoke without difficulty.

Description of Procedure: After the patient entered the operating suite, was placed supine on the table, and satisfactory anesthesia had been achieved, the patient's neck and chest were prepared and draped sterilely. An oblique incision was made anterior to the sternocleidomastoid muscle and deepened through the subcutaneous tissue. The anterior facial vein was divided between clamps and ligated with silk sutures. Next, the common carotid artery was dissected out and encircled with a vessel loop. The external carotid artery was also encircled with a vessel loop. Care was taken not to disturb the plaque in the internal carotid artery. Distally the internal carotid artery was visualized where a clamp zone could be applied. Next, the external carotid artery was encircled with a vessel loop. The patient was heparinized. Next, the internal carotid artery was occluded, as well as the common and external. A longitudinal arteriotomy was made in the common carotid and extended into the internal carotid artery. The plaque could easily be seen at this level. An endarterectomy was performed to remove the plaque, with good ending in both the internal and the external carotid arteries. In this situation, an indwelling shunt was used. A small Sundt was inserted. A patch was sewn into position as an angioplasty with a running 6-0 Prolene suture. Just prior to completion of the anastomosis, the shunt was removed and the vessel was backflushed. After the completion of the anastomosis, the clamps were released. There was noted to be good signal in the internal and in the external carotid arteries. The heparin was reversed with protamine. When there was good hemostasis, the wound was closed in layers with Vicryl, the skin edges with staples. Sterile dressings were applied, and the patient went to recovery in satisfactory condition having tolerated this well.

Coding for Procedure Example #2

This case provides an interesting example of interpreting the operative description. The procedure indicates a left carotid endarterectomy, patch angioplasty, and indwelling shunt. The body part identification for the carotid artery is either Common, Internal, or External and also includes laterality, so the documentation must be clear. On review of the procedure description there is mention of all three carotid arteries on the left side. However, the actual endarterectomy was done on the left internal carotid artery. The work on the common and external carotids was integral to the actual endarterectomy and not coded separately. Once the accurate body part has been established, code assignment for the endarterectomy is essentially complete. Next is the patch angioplasty which may lead the coder to the root operation "Dilation," which in this case is incorrect. The patch placed on the vessel should be coded to the root operation "Supplement" for repair of the vessel. Finally, in the body of the operative report there is documentation of insertion of an indwelling shunt; however, on complete review of the description, the shunt was removed prior to the conclusion of the procedure, so no additional code is necessary.

Procedure Example 3

Procedure Performed: Robotic-assisted abdominal colectomy with ileosigmoid anastomosis

Anesthesia: General endotracheal

Indications: This 17-year-old woman has confirmed familial polyposis. She tested positive on genetic assay; her two brothers were negative. Her father and four of her father's siblings have the disease.

She and her mother are well informed about familial adenomatous polyposis and have thought out and elected a colectomy with preservation of the rectum. They are aware of total proctocolectomy with ileal J-pouch reconstruction, but defer at this time. Multiple examiners including my recent flexible sigmoidoscopy confirmed rectal sparing as there were no polyps in the rectum or distal sigmoid.

Findings: At laparoscopy was essentially normal examination. The liver and gallbladder were healthy. The stomach and those portions of the small intestine visualized were normal. The colon was without gross abnormality. The uterus and bilateral adnexa were healthy.

The open colon subsequent to extraction was notable for a few small polyps. She has attenuated polyposis.

Description of Procedure: The patient was brought to the operating room, placed supine on the operating table with the SCD stockings functioning and carefully brought under general endotracheal anesthesia. She was carefully positioned on the split-leg table with care to protect all four extremities from any undue pressure or rotation. Catheters were used in the stomach, bladder, and rectum for gravity drainage. The abdomen was prepared with alcohol-based solution and the field draped. Surgical timeout fully executed.

A supraumbilical Veress needle placement was followed by a normal drop test and straightforward CO2 insufflation to a pressure limit of 15 mmHg maximum throughout the operation. A left paramedian lower quadrant incision was made and a 5-mm da Vinci port with a blunt tip trocar was carefully advanced through the layers of the abdominal wall until free intraperitoneal access was confirmed by free flow of CO2 back through the trocar. Safe insufflation and trocar placement was confirmed when laparoscopy was performed. Diagnostic laparoscopy was notable for the findings as above.

A 5-mm AirSeal port was placed in the right upper quadrant for the assistant. The patient was placed in reverse Trendelenburg and the robot docked.

The robotic dissection was initially performed by dividing the omentum in the midline and dividing the transverse colon using linear cutting da Vinci stapler blue load x2. This greatly facilitated robotic laparoscopic mobilization of the transverse colon. The right colon was addressed by dividing the omental colic and hepatocolic ligaments with the hooked cautery probe or the vessel sealer. The transverse mesocolon was taken with the vessel sealer. Care was taken to observe and protect unharmed the duodenum and retroperitoneal structures. The ascending colon the lateral attachment and the mesocolon was taken in a similar fashion. The ileocecal junction and appendix were mobilized medially by dividing the lateral peritoneal attachment and the mesentery taken with the vessel sealer to the terminal ileum. The entire right colon was thus completely mobilized.

A similar approach was used on the left colon, dividing the omental colic ligament, taking the mesocolon with the vessel sealer, and mobilizing the splenic flexure under direct vision using the hook cautery. The descending colon was mobilized medially as

was the proximal sigmoid. The mesocolon was taken using the Hem-o-lok clip on a particularly large sigmoid vessel and the vessel sealer.

The patient was then prepared for the anastomosis. It was decided then extracorporal anastomosis would be performed. The robot was undocked, the abdomen desufflated and the trocars removed. It should be noted that the entire field has been examined laparoscopically and found to be hemostatic. Blood loss had been less than 50 mL.

The 2 medial most trocar skin incisions in the suprapubic area were then connected by transverse skin incision and the wound deepened by dividing the subcutaneous fat and the anterior fascia. The fascia was elevated proximally and distally and the rectus muscles were gently separated in the midline. The peritoneal incision incorporated the 12-mm port site incision. A small wound protector was placed.

The right colon was delivered and the linear cutting Tri-Stapler 60 purple was used to divide the terminal ileum and the right colon was handed off.

The left colon was delivered. It was decided to mobilize more of the mid sigmoid when redundancy was encountered and there would be appropriate and subtotal colectomy. The linear cutting stapler with vascular load was used to take some more of the mid mesocolon. The linear cutting Tri-Stapler 60 purple was used to divide the sigmoid and the left colon was handed off.

The anastomosis was created side-by-side with the linear cutting Tri-Stapler 60 purple. The remaining common channel enterotomy was inspected and the staple line found to be hemostatic and the enterotomy closed with the linear cutting Tri-Stapler 60 purple.

It was noted that the anastomosis would not lay with good orientation and it was decided that the anastomosis should be redone. The entire anastomosis was resected by dividing the terminal ileum and the sigmoid just adjacent to the anastomosis using linear cutting Tri-Stapler 60 purple. The vascular load on the Tri-Stapler was used to take the small bit of mesentery and mesocolon. The orientation of the small bowel was then rotated 180 degrees counterclockwise and a repeat side-to-side anastomosis was performed in well-vascularized bowel. The linear cutting Tri-Stapler 60 was used to create a side-to-side anastomosis. The internal staple line was inspected and found to be hemostatic. The remaining common channel enterotomy was closed with the linear cutting Tri-Stapler 60 purple. That external staple line was inverted using interrupted 3-0 Vicryl Lembert sutures. There was a widely patent palpable anastomosis, not tension and excellent blood supply.

The mesenteric defect was closed with running 3-0 Vicryl suture. The anastomosis lay perfectly.

The field was inspected and found to be hemostatic. The peritoneum was closed with running 3-0 Vicryl suture. The transverse fascial defect was closed with running #1 PDS suture. The subcutaneous tissue of all incisions was irrigated and the skin closed with 4-0 subcuticular undyed Vicryl and Dermabond.

Post-procedure time-out was fully executed. There were two specimens sent.

The Xi platform was used. Incision at 0804 and closure 1248. Docking was 033-1039. Patient received Invanz 1 gram. VTE prophylaxis was with TED, SCDs, and heparin. Patient received 5 liters of crystalloid. Estimated blood loss was less than 50 mL. The patient received Decadron and Zofran for postoperative nauseous, vomiting. There was not hydrocortisone or Toradol was used. The splenic flexure was mobilized robotically. The anastomosis was fully stapled extracorporal side-to-side.

Coding for Procedure Example #3

This final case is a bit more complex and requires the interpretation of more detail than the previous two procedures. Let's start with a review of the procedure description, which documents a robotic-assisted abdominal colectomy with ileosigmoid anastomosis. At first glance, there will be a code for the colectomy with a second code for the robotic assist and no code assigned for the anastomosis.

The complexity of the case surrounds the approach. The procedure, including the robotic assist and the colectomy, was done laparoscopically, but the anastomosis had to be completed through an open incision. Therefore, the code for the robotic assist

should be coded with the approach character of 4, Percutaneous Endoscopic and the colectomy should be coded with the approach character of 0, Open.

There is documentation of an exploratory laparoscopy, but this is not coded separately as it is integral to the colectomy procedure. There is also documentation of insertion of numerous catheters which are included with the colectomy procedure.

Be Sure to Read Operative Reports Carefully

These are just a couple examples of the process of dissecting the operative report for successful ICD-10-PCS code assignment. Be sure to always read the full operative report to identify all codeable procedures and eliminate those which do not need to be coded.

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