



Five Pitfalls You Can Avoid In Coding Nuclear Medicine, Diagnostic Radiology, and Interventional Radiology Services

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We help healthcare organizations improve their bottom line and strategic market position with front line expertise in revenue cycle management, smart software and enterprise-level educational solutions.

Introduction

In a recent poll conducted by Panacea that asked for opinions on the most common pitfalls for healthcare organizations in coding IR, one third of respondents indicated

- Not understanding code sets

Another third of the respondents said

- Not completely understanding bundling

The final third of respondents were close to evenly split in believing that their organizations

- Do not fully understand code sets
- Lack knowledge of or forget key coding concepts

In this paper, we discuss the five coding pitfalls that healthcare organizations face in achieving compliance and capturing legitimate revenue. Learning to recognize and overcome these pitfalls, specifically in interventional vascular and non-vascular radiology (IR) as well as nuclear medicine procedures, can return optimal reimbursement in three key areas.

Top Five Pitfalls

1. **Not understanding code sets.** Healthcare organizations must recognize their lack of knowledge about code sets.
2. **Not completely understanding bundling,** and incorrectly charging separately or by bundled code sets.
3. **Misunderstanding definitions** that present ambiguity in code definitions.
4. **Misunderstanding or forgetting key coding concepts.**
5. **Incorrectly documenting** to support billing in
 - a. Invasive vascular radiologic procedures
 - b. Invasive non-vascular radiologic procedures
 - c. Nuclear medicine

Documentation

There can be no accurate reimbursement without excellent documentation. Successful documentation underlies accurate and precise coding, which is a theme of this paper. Third-party payers will use the quality of documentation to determine if it supports the coding submitted to them for payment.

Healthcare organizations can audit their own documentation to validate that what has been coded supports the optimal level of billing, but be alert in this paper to the role of documentation throughout the entire process of avoiding errors. We will discuss documentation (the physician's dictation) more thoroughly in the Best Practices section.

There are three approaches to coding an event.

1. **Separately coding component items of the Radiological Supervision & Interpretation (RS&I or S&I) and surgical (i.e., procedural) portions of the service**
2. **Complete bundling**
3. **Hybrid-bundling**

Interventional Radiology: Vascular Procedures

Interventional radiology is the diagnosis and percutaneous, non-surgical (i.e., non-open) treatment of disease that relies on the IR physician to employ advances in radiological technology and imaging equipment. Through treatment, the IR physician uses needles and small catheters instead of open surgical incisions.

The trend at CMS is toward bundled codes that are comprehensive (i.e., collapsed), moving away from the traditional per-item (i.e., “component”) coding. The third method of hybrid-bundling includes vestiges of both bundled procedures and component coding. For example, a hybrid code for lower extremity interventional procedures where supervision and interpretation relative to the actual intervention are bundled along with catheterization and follow-up angiography, but doesn’t include true diagnostic imaging.

All billing and coding does not fit one model. Coding will remain a mix of component coding, entirely bundled coding, and often hybrid-bundling. The coding specialist must know all three possibilities of coding.

Requiring coders to know all three methods is the best practice. A coder may incorrectly assume that all associated items are in the relevant bundled code because that’s how the newer CPT® codes have been developed. Assuming that all bundled codes are comprehensive leads to undercoding. This is particularly true for vascular and non-vascular interventional procedures as well as other selected radiology services (by modality). While “add-on” codes can be used to correct the issue, they are becoming less frequent, and they have very specific criteria regarding their use.

In recent polling conducted by Panacea, invasive vascular radiology service is the clinical area healthcare organizations believe is the most confusing for coders—as stated by just over half of the respondents. Nuclear medicine followed at 23%, and non-vascular IR urinary and biliary procedures were about evenly split at 13% and 10%.

To help alleviate this confusion, it is important to read the Coding Guidelines for specific instructions on what can and cannot be done. Closely reading the narrative instructions that appear before the codes and definitions will provide guidance regarding code assignment as well as do’s and don’ts.

Nuclear Medicine

In nuclear medicine, we perform a lot of cardiac work, bone imaging, thyroid studies, and single-photon emission computed tomography (SPECT). To code effectively, coders need to know how CPT is structured and how the codes are developed within each section.

Nuclear medicine provides information about the structure and function of every major organ system. The ability to characterize and quantify physiologic function is what separates nuclear medicine from other types of imaging methods.

An area where many coding errors occur in nuclear medicine is the difference between limited area studies, whole body studies, multiple area studies, three-phase studies, SPECT, and SPECT-CT.

Coders can have difficulty getting to the correct code here. Again, it is important to pay close attention to Coding Guidelines and definitions well as the physicians' documentation

You must understand conceptually how the codes are built. Code ranges are based on anatomy and increasing complexity. At a high level, code structure ranges from 78012 to 79999. Codes in the 78000 series describe diagnostic studies, and the 79000 range describes therapeutic services.

In nuclear medicine, one area frequently audited is the coding of radiopharmaceuticals and non-radioactive drugs. In Panacea's experience, hospitals lose reimbursement in this area by charging incorrectly, or not at all. Coders tend to forget to code for the materials not included in the diagnostic and therapeutic codes. If the hospital incurs the purchase expenses for the item(s), then it is allowed to charge for radioactive or non-radioactive drugs. Be certain that the chargemaster is configured correctly to capture these expenses. Be aware that there are differences in reimbursement for these items based upon your Medicare and non-Medicare payers.

In audits, Panacea has found that physician dictation and resulting documentation in nuclear medicine generally observes best practices. The specialty has a smaller number of physicians with this focused skill-set as opposed to general radiology, and they are often the most up-to-date on coding and billing information regarding this service line. In spite of this, problems can arise in teaching facilities or with new clinicians.

- In nuclear medicine, physicians may believe that their routines and methods are implied—that everyone understands the protocols—and so they may not specify exactly how they did the imaging study. Physicians should indicate in their documentation the type of radioactive material used and the amount administered.
- Consider images taken using two-dimensional planar imaging versus SPECT imaging. The planar image is flat, and the physician may require more than one projection (i.e., AP and lateral views) for a good look at a site. The SPECT image, on the other hand, is a 3-D image, providing exquisite detail. Capturing a SPECT image is more time consuming than a planar image, and the equipment costs more—hence, reimbursement is typically greater for this type of imaging. As evident, the only way to confidently assign the correct code for billing is for the reading physician to document exactly “how” (i.e., planar vs. SPECT) the imaging was done.

The coding for radiopharmaceuticals can also become confusing. There is a massive difference between codes that result in capturing reimbursement and those that describe specifically which pharmaceutical product was used. For example, there are numerous possibilities for coding Indium 111 (¹¹¹In). The correct code depends on how it is attached or labeled for delivery. Here are just a few of the coding options for Indium 111 (¹¹¹In).

Code	Indium 111
A9548	¹¹¹ InDTPA
A4642	¹¹¹ In Oncoscint
A9507	¹¹¹ In Proscint
A9542	¹¹¹ In Zevalin (a diagnostic material)

If the physician is not specific in naming how the Indium is tagged (to DTPA as opposed to Oncoscint, etc.), then it is likely the hospital will charge incorrectly. As most radiopharmaceuticals are “hard-coded”, an audit of chargemaster line item options will begin to determine if the billing was correct. The report dictated by the physician will be the first piece of evidence an auditor will request. If the report does not indicate the specifically indicated radiopharmaceutical, then the charge can be pended or denied. Anything in the encounter should be viewed (and documented) as a specific “snapshot in time” of the reason for the study, including patient medical necessity for the visit to support ICD-10 code(s), the material(s) utilized as well as the amounts given (i.e., in microcuries or millicuries), the type of imaging (i.e., planar, SPECT, PET, etc.) done, and the study(s) performed.

Coding tip:

All nuclear medicine procedures are assigned to one of just five APC groups, with the four diagnostic procedure groups in 2017 ranging from about \$333 to \$1,320 at the national OPPS rate. The one therapeutic procedure group is reimbursed at about \$216.

Medicare does not typically reimburse for the radiopharmaceutical in addition to procedures outside of the bundled payment, but the specific Level II HCPCS code should be billed anyway because a non-Medicare third-party payer may cover it.

Unless prohibited by law, always charge for what you’ve performed. Don’t assume everything is bundled. Charge for what you’ve done. Not all payers reimburse you in the same way.

Even if Medicare does not reimburse, the data you submit is used to update the payment methodology. Always submit charges for the radiopharmaceuticals and other materials you’ve used.

An example of the importance of coding specifics is the CPT codes used for various PET/CT scans—one of the most troublesome areas in coding nuclear medicine. The issue is understanding the code and correlating it to the intent of the code. There are only three codes, and they can be used only if the PET/CT scan is done on an integrated unit. If the study is not done on an integrated unit but on two machines instead, the study must be coded differently.

In nuclear medicine, you must again be alert for coding specifics. There are different ways to perform a procedure:

- Whole body
- Multiple areas
- Limited area

An auditor looks at more than what the physician's order says or what the header information lists. The auditor will evaluate what the actual technique and findings indicate. From a payment perspective, if there is appropriate medical necessity for the study and correct documentation then appropriate CPT and/or Healthcare Common Procedure Coding System (HCPCS) codes will support the encounter.

Interventional Radiology Procedures: Non-Vascular Urinary Procedures

Urinary System – Renal Procedures

In all procedures, definitions and naming conventions matter. Physicians in the same practice may title the same urinary procedures by different names, but the procedures map to the same codes. For instance, the coder's task is to extract from the documentation the information necessary to code placement of a universal stent the same as a nephroureteral catheter.

Procedure Names	New Codes
J-J stents	50693-50695
Pigtail stents	50693-50695
Double J / Double Pigtail Stent	50693-50695
Internal / External Catheter	50433
Nephroureteral Catheter	50433
Nephroureteral Stent	50433
Universal Stent	50433
Perc Neph	50432
PCNs	50432
Percutaneous Nephrostomy	50432
Loopogram	74425 and 50690
Ileal Loop Study	74425 and 50690

In this area it is also important to watch for coding specifics. In 2016, twelve codes for percutaneous genitourinary (GU) procedures were created, replacing all component codes that may have been used previously for most services.

Urinary System – Kidney

In coding kidney and urinary tract services, the bundled codes constitute single systems that include both the surgical and the Supervision and Interpretation (S&I) portion of the service. Primary therapeutic procedures include diagnostic imaging. Each renal pelvis and ureter treated are separately coded. Physicians need to clearly state if the right, left, or right and left sides are studied/treated. Anatomical variants such as duplicated collecting systems or horseshoe kidneys must be defined. Without this information in the documentation the number of services could be undercoded.

S&I and surgical codes are older options for billing in some instances. Component codes are holdover codes (especially in the GU area) and are still used in CPT. It is important to look at a utilization or an audit report to determine if you should continue to use these older codes or if the new codes are now more appropriate. The danger in using component codes is that procedures may become (incorrectly) unbundled.

Holdover CPT®	Description
74425	Urography, antegrade (pyelostogram, nephrostogram, loopogram), radiological supervision and interpretation
74485	Dilation of nephrostomy, ureters, or urethra, radiological supervision and interpretation
50390	Aspiration and / or injection of renal cyst or pelvis by needle, percutaneous
50391	Instillation(s) of therapeutic agent into renal pelvis and / or ureter through established nephrostomy, pyelostomy or ureterostomy tube (e.g., anticarcinogenic or antifungal agent)
50395	Introduction of guide into renal pelvis and / or ureter with dilation to establish nephrostomy tract, percutaneous
50396	Manometric studies through nephrostomy or pyelostomy tube, or indwelling ureteral catheter
50684	Injection procedure for ureterography or ureteropyelography through ureterostomy or indwelling ureteral catheter
50686	Manometric studies through ureterostomy or indwelling ureteral catheter
50688	Change of ureterostomy tube or externally accessible ureteral stent via ileal conduit
50690	Injection procedure for visualization of ileal conduit and/or ureteropyelography, exclusive of radiologic service

In the biliary area, the situation is different. All the component codes were deleted.

An CPT® Urinary System Guidelines state the following regarding codes 50430-50435, 50606, 50693-50695 and 50705-50706:

“The renal pelvis and its associated ureter are considered a single entity for reporting purposes. These codes may be reported once for each renal collecting system/ureter accessed (e.g., two separate codes would be reported for bilateral nephrostomy tube placement or for unilateral duplicated collecting system / ureter requiring two separate procedures.”

Biliary Tract Procedures

Coders seem to struggle most with coding percutaneous GU (genitourinary) and biliary procedures in the non-vascular interventional radiology area. Codes in the biliary series include all types of radiologic guidance necessary to perform the procedure. But unlike the previously defined urinary system, all component codes for percutaneous biliary system procedures were deleted in 2016.

There are now fourteen codes for percutaneous biliary procedures, and they bundle the surgical and S&I procedures. Other than add-on code options, it is unusual to have more than one surgical code for a patient encounter.

Coding tip:

Code each separate and distinct procedure performed and documented.

Therapeutic procedures (including pure diagnostic imaging services defined by codes 47531 and 47532) are defined in CPT by codes 47533, 47534, 47535, 47536, 47537, 47538, 47539 and 47540.

- Each of these codes describe a specific procedure (e.g., drainage, exchange, conversion removal, stent placement, assistance [e.g., rendezvous procedure], dilation, biopsy, or stone removal).
- Codes 47533, 47534, 47538, 47539, 47540 may be reported once for each catheter or stent placed (e.g., bilobar placement, multi-segmental placement).
- Codes 47535, 47536 and 47537 may be reported once for each catheter conversion, exchange, or removal (e.g., bilobar, bisegmental).

Even though the codes have changed profoundly in recent years, there remain many parallels between non-vascular interventional urinary and biliary coding. When the biliary codes were created in 2016, they were similar to the urinary codes in types of procedures and definitions. The reports also look similar. If the biliary and urinary services lines are very different, then an audit can point out areas where the documentation can be brought into compliance to help the practice validate what is being billed to capture the appropriate reimbursement.

Documentation

Hospitals cannot completely control documentation because it is the responsibility of the physician. Physicians bear the burden of proof in documenting complete diagnoses and procedures. Ultimately, all coding methods—hybrid, complete procedure codes, or component codes—rest on the specificity of the documentation. Examples can illustrate the problem:

Consider the orders of selectivity: the first order and the second and third orders. We are rarely allowed to use these codes, but that does not negate the possibility. Even if we now use a bundled code for carotid or vertebral artery imaging procedures, the access point will indicate which of the bundled code choices is appropriate to use. This means that the access point and each catheter position and injection still needs to be documented as specifically as before.

Another challenge is the dialysis circuit procedures, which all have changed for 2017. Coding is simplified, and hierarchical, in logical units where one procedure often includes others in an ascending code sequence that the coder can build on. Don't make the mistake, however, of going up the code set sequences assuming that everything included before in the numerical sequence is included after. The coder must know CPT terminology to assign correct, specific codes. The coder needs to know that imaging is included in all primary peripheral codes, and that there are add-on codes for some components. The documentation required of the physician has not changed. It remains specific. For instance, physicians must continue to specifically describe the location of insertion and the end point to support a correct billing code for payment.

Even as coding is changing and newer codes are comprehensive bundles, physicians must still fully document. Don't incorrectly assume that because codes have changed (and will continue to change) that physician documentation should change—it must be clear and concise.

Best Practices

Physician Dictation and Documentation

There is a common theme throughout our discussion: documentation demands specificity for compliant billing and correct reimbursement. Documentation underlies coding, and coding maps to the physician's dictation.

Documentation tip:

Best practice is to have separate paragraphs in the final documentation/report for each diagnostic and therapeutic procedure on the same patient at the same encounter. Be clear about what is being imaged and treated.

The following concepts universally apply to documentation.

- For each service billed, describe:
 - Medical necessity
 - Service performed
 - Findings

- Use language that correlates to CPT to remove ambiguity.
- Continue to use concepts of component coding documentation in the dictated report.
- Don't assume one service is rolled up to the next code in a sequence.
- If right and left-sided structures exist, describe each individually so they can be (if allowed) coded individually.
- Describe the types of image-guidance used.
- For NM and PET procedures, define the exact type of imaging performed as well as all radiopharmaceuticals and non-radioactive drugs used.
- For physician billing, remember that each code carries a different relative value unit (RVU). Complete documentation enables correct, complete coding to increase these as well as ultimate reimbursement.

Education

The revenue stream is profoundly affected by coding practices as well as provider dictation and documentation. Upstream education reinforcement and workflow assessments can keep the coding team at peak performance.

Audits

The importance of best practice audits cannot be overstated. The best way to assess where your organization stands is through internal audits of current practice. Quarterly and monthly audits should match the codes submitted to payers for reimbursement, and then go upstream to provide a careful analysis of how documentation influences coding. Audit now to establish a baseline, and audit frequently to assess and remediate. Audit again to validate remediation, and continue the process. Our evidence shows the revenue stream will improve.

Conclusion

The top five pitfalls in coding that constrict revenue in the key areas of vascular and non-vascular IR and nuclear medicine can be overcome if healthcare organizations strive to improve their education processes for their coding staff and increase awareness among providers of the importance of documentation. Correct documentation is the gateway to accurate reimbursement.

About Panacea and Career Step: Help for Effective Revenue Capture

Career Step provides the education and training necessary to refresh coders' skills and help them link documentation to successful code assignment for appropriate reimbursement.

Panacea provides auditing, education, and training services that ensure complete documentation, appropriate charging, and consistent coding. We spend time with physicians to help them arrive at compliance with best practice in documentation and dictation to support and substantiate the charges that have been billed.

Panacea provides services in Nuclear Medicine, Diagnostic Radiology, and Interventional Radiology:

- Baseline compliance reviews (audits)
 - Quarterly audits
 - Monthly audits
- Education for your team
 - On-site (face-to-face)
 - Via phone or web
 - Online course
- Evaluating workflow assessments
- Providing coding question retainers and hotlines

About the Author

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Jeff has extensive background in revenue management in radiology, interventional radiology, nuclear medicine, and cardiology. He has provided training to hundreds of hospitals and radiology practices over the last 25+ years. Jeff is the technical editor for Panacea's *CPT Coding and Regulatory Compliance for Radiology*; the author of the Study Guide for the Radiology Coding Certification Board Exam, *Interventional Coder*, *Nuclear Medicine* and *CT/MRI Coder* manuals; and a co-author of the *Mammography Coder*, *Ultrasound Coder*, *Peripheral and Cardiology Coder*, and both the test and study guide for AAPC's Certified Interventional Radiology Cardiovascular Coder (CIRCC) credential. Jeff also performs a variety of IR and Cardiology services coding audits and is a nationally recognized speaker.

