National Association of Healthcare Revenue Integrity

The Importance of Accurate Revenue Code Selection

by Valerie A. Rinkle, CHRI

Revenue integrity and chargemaster staff are increasingly relying exclusively on chargemaster software recommendations for revenue code selection. I have noticed this trend accelerating over many years from my discussions and interactions with hospital revenue integrity staff. I have 40 years' experience in healthcare, with most of that in reimbursement, chargemaster, and revenue cycle operations, so this trend concerns me as it presents several threats to revenue integrity.

While the main objective of accurate revenue code selection is to prevent claim rejections and denials, providers are also obligated to meet Health Insurance Portability and Accountability Act (HIPAA) transaction set requirements. They must also keep in mind how revenue code selection aligns with Centers for Medicare and Medicaid Services (CMS) guidelines and impacts CMS payment rate calculations. Because CMS payment methodologies strongly influence Medicaid and commercial payer methodologies, the potential impact of inaccurate revenue code selection involves hospitals and payers alike. To understand why, we need a grounding in hospital cost reporting principles, how revenue codes are governed by HIPAA laws, and how CMS uses claims and cost report data in payment rate development.

Source authority for revenue codes

Congress passed HIPAA in 1996. One of HIPAA's five provisions—administrative simplification—mandated that the Department of Health and Human Services (HHS) adopt standards to streamline communications between hospitals and health plans. Eligibility, claims, code sets, and remittance standards all fall under the umbrella of HIPAA administrative simplification requirements. The CMS National Standards Group, on behalf of HHS, administers the Compliance Review Program for HIPAA administrative simplification. The program's aim is to promote compliance with the rules for electronic healthcare transactions. The National Standards Group reported in July 2021 that the nation's healthcare system could save an estimated *$20 billion a year* if all HIPAA-covered entities complied with required standards and operating rules for electronic transactions (CMS, 2022a). This number is staggering—think about all the patient care that those dollars could support!

The same entities governed by HIPAA privacy and security laws are covered entities for administrative simplification. This applies to all hospitals and payers: the covered entities that report and adjudicate revenue codes on institutional claims.

Revenue codes used on institutional claims are defined by the National Uniform Billing Committee (NUBC), a division of the American Hospital Association, which is a Designated Standards Maintenance Organization (DSMO) under HIPAA. DSMOs are organizations named by HHS to maintain standards adopted under HIPAA administrative simplification (CMS, 2022b).

In its recent comment letter to CMS regarding another transaction standard for claim attachments, NUBC states: "[t]he NUBC is a Data Content Committee named in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and is composed of a diverse group of health care stakeholders representing hospitals, health plans, designated standards maintenance organizations, public health organizations, and vendors. The NUBC develops and maintains a national uniform billing instrument for use by the institutional health care community. The Committee currently maintains the Uniform Billing (UB) 04 data set and form. Our goal is to promote the development of the data needs reported within the UB-04 claim for use by institutional health care communities and transmitted to all third-party payers" (Cunningham, 2023).

The official reference for revenue codes is the NUBC's *Official UB-04 Data Specifications Manual.* The nubc.org website states: "You can access the UB-04 billing information adopted by the NUBC by subscribing to the *Official UB-04 Data Specifications Manual.* This manual, copyrighted by the American Hospital Association, is the only official source of UB Data. No other publication—governmental or private/commercial—can be considered authoritative."

Despite this fact, I often hear hospital revenue integrity and chargemaster staff say they instead rely upon Optum's Uniform Billing Editor. However, this is a proprietary resource that interprets NUBC and CMS requirements and does not have the authority of HIPAA to regulate transaction sets. Interpretation is inherently subjective, and relying solely on a third party's interpretation can present risk to the revenue cycle. Therefore, it is extremely important that each hospital have a subscription to the *Official UB-04 Data Specifications Manual.* Hospitals should refer to this manual and follow its requirements when selecting revenue codes and completing other fields on the UB-04 facility claim, instead of relying solely on recommendations from vendor software. In addition, if a hospital discovers that a payer is not following NUBC requirements, the hospital should notify the payer of this.

The manual includes minutes of the NUBC committee meetings, where updates and revisions to the manual are decided upon. At times, updates to the manual can occur before the formal update period of July 1–June 30 of each year. Thus, it is important to periodically check the website at nubc.org for any mid-cycle updates and announcements.

To further solidify the preeminence of NUBC as the authoritative source for revenue codes, Chapter 25 of CMS' *Medicare Claims Processing Manual* states in Section 70.1 that "[t]he National Uniform Billing Committee (NUBC) maintains lists of approved coding" for the UB-04 (CMS, 2021). And in Section 75.4, CMS states that revenue codes "are also available from the NUBC (www.nubc.org) via the NUBC's *Official UB-04 Data Specifications Manual."* CMS no longer reprints revenue code definitions because that task is under the purview of NUBC.

NUBC requirements for revenue codes

A revenue code is four digits in length and describes the type or location of the service (e.g., drugs, ICU, or emergency department [ED]). This may differ based on the type of institutional claim (e.g., inpatient or outpatient hospital, skilled nursing facility). For example, the revenue code for most drugs is 0250 for inpatient hospital claims, but revenue code 0636 is required to report Healthcare Common Procedure Coding System (HCPCS)-level detail for most drugs reported on outpatient claims.

NUBC instructions concerning revenue code selection include whether the general category for each defined series, which ends in 0, can or should be reported for a type or location of service versus a more specific subclass within the revenue code series defined with a fourth digit other than 0. Taking laboratory as an example, 0300 is the general category. Within that category, 0301 is chemistry, 0302 is immunology, 0305 is hematology, and 0308 is reserved by NUBC and not yet defined.

Every service defined in a hospital's chargemaster requires a revenue code. For inpatient services involving multiple services for the same category, such as pharmacy or respiratory therapy, NUBC instructs hospitals to sum the services under the applicable revenue code and report the total number of units that represent the services for that revenue code. In other words, with limited exceptions, HCPCS detail is not reported on inpatient claims.

For outpatient services, hospitals should report the corresponding HCPCS code for the service along with the date of service in addition to the revenue code. If multiple same-day services with the same HCPCS/modifier combination are reported, then the provider sums those and reports the number of units. There is an exception for evaluation and management HCPCS codes, which should be reported individually with condition code G0 for each distinct medical visit. The manual also states that HCPCS code usage notes for each revenue code series are general guidance rather than hard and fast rules. This means correct coding principles apply and it may be necessary to report a charge with a revenue code, but not a HCPCS code.

Revenue codes and the relationship to cost reporting

The Medicare cost report is a year-end report of statistical and financial data used in determining the cost of services provided to all hospital patients; the total cost is subsequently apportioned to Medicare patients. Prior to the establishment of the prospective payment systems for inpatient and outpatient hospital services (IPPS and OPPS, respectively), the Medicare cost report was used to determine the Medicare program's financial liability to a hospital by computing the difference between the hospital's Medicare cost and the Medicare payments the hospital received during the year. In addition, most state Medicaid programs still use the Medicare cost report as the basis of the Medicaid cost report.

A hospital's expense and revenue should match in the hospital general ledger (GL), and revenue should be reported with the appropriate revenue codes representing a department's services. Continuing with the laboratory example, the laboratory may be one or more GL cost centers in the hospital. The charges for the laboratory departments should be established with the 030x revenue code series. Matching expense with revenue is required for accurate cost-to-charge ratio (CCR) development from the cost report.

A CCR is the direct plus allocated indirect hospital cost to each routine and ancillary department divided by the sum of all patient charges for that department. CMS uses CCRs by multiplying them against billed charges on claims to make outlier payments and to develop prospective payment system rates. For example, the laboratory expense is matched to the laboratory revenue in the GL and hospital income statements used to develop the CCR. Medicare then multiplies the laboratory CCR against laboratory charges billed under revenue code 030x on Medicare claims. Consider point-of-care (POC) tests performed in clinics, EDs, and nursing units. The POC kits' expense should be recorded in the laboratory department, but, ideally, during cost reporting the staff expense would

be reclassified or moved from the departments in which the tests are provided (e.g., the ED) to the laboratory. This allows the cost report to better match the laboratory revenue with the expense of performing POC tests billed with revenue code 030x.

CMS aggregates CCRs into 19 national average cost groups for IPPS rate setting, but it uses hospital-specific department CCRs for OPPS rate setting. Figure 1 shows the table CMS published with the fiscal year (FY) 2023 IPPS rule showing the 19 cost groups for IPPS. This is updated annually based on the most current hospital cost reports available.

Figure 1. The 19 national average cost-to-charge ratios (CCR) for fiscal year 2023

GROUP	CCR	GROUP	CCR
Routine Days	0.422	Cardiology	0.094
Intensive Days	0.341	Cardiac Catheterization	0.104
Drugs	0.184	Laboratory	0.107
Supplies & Equipment	0.311	Radiology	0.137
Implantable Devices	0.281	MRIs	0.071
Inhalation Therapy	0.15	CT Scans	0.034
Therapy Services	0.283	Emergency Room	0.155
Anesthesia	0.072	Blood and Blood Products	0.255
Labor & Delivery	0.366	Other Services	0.359
Operating Room	0.165		

SOURCE: CMS, fiscal year 2023 Inpatient Prospective Payment System final rule, *https://www.cms.gov/medicare/acute-inpatient-pps/fy-2023-ipps-final-rule-home-page#FinalRule*

Put another way, for every dollar charged, hospitals have, for example, 18.4 cents of expense for drugs, including allocated hospital overhead and administrative costs. For nursing and accommodation charges, the hospital has 42.2 cents of cost for every dollar charged. This demonstrates that hospitals' markup of different types of services is not even or equal.

CMS publishes a crosswalk between revenue codes and cost report cost centers for OPPS. Figure 2 shows some representative revenue codes and how they are treated under the two payment systems. Because CMS uses CCRs to develop payment rates, the correct selection of revenue codes based on CMS' mapping to cost centers is very important.

Figure 2. Sample CMS revenue code to cost center crosswalk: Inpatient Prospective Payment System (IPPS) vs. Outpatient Prospective Payment System (OPPS)

Revenue code	Description	Used in OPPS	Used in IPPS	IPPS cost group	Cost report line description for IPPS	Primary OPPS cost center	Primary cost center name
0110	Room & Board (Private)	N	Y	Routine	Adult & Pediatrics	N/A	N/A
0120	Room & Board (Semi-Private 2)	N	Y	Routine	Adult & Pediatrics	N/A	N/A
0200	Intensive care	N	Y	Intensive	Intensive Care Unit	N/A	N/A
0230	Incremental nursing charge rate	N	Y	Other		N/A	N/A
0250	Pharmacy	Y	Y	Drugs	Drugs Charged to Patients	7300	Drugs Charged to Patients
0260	IV Therapy	Y	Y	Drugs	Drugs Charged to Patients	6400	Intravenous Therapy
0271	Medical/Surgical Supplies: Nonsterile supplies	Y	Y	Supplies	Supplies Charged to Patients	7100	Medical Supplies Charged to Patients
0272	Medical/Surgical Supplies: Sterile supplies	Y	Y	Supplies	Supplies Charged to Patients	7100	Medical Supplies Charged to Patients
0278	Medical/Surgical Supplies: Other implants	Y	Y	Implants	Implantable Devices Charged to Patients	7200	Impl. Dev. Charged to Patient
0300	Laboratory – Clinical Diagnostic	Y	Y	Lab	Laboratory	3390	Laboratory – Clinical
0310	Laboratory – Pathology	Y	Y	Lab	Laboratory	3420	Laboratory – Pathological
0320	Radiology – Diagnostic	Y	Y	Radiology	Radiology Diagnostic	5400	Radiology – Diagnostic
0360	Operating Room Services	Y	Y	OR	Operating Room	5000	Operating Room
0391	Blood: Administration (e.g. Transfusion)	Y	Y	Blood & Blood Products	Blood Storing, Processing & Transfusing	6300	Blood Storing, Processing & Trans
0410	Respiratory Services	Y	Y	Inhalation	Respiratory Therapy	6500	Respiratory Therapy
0510	Clinic	Y	Y	Other	Clinic & Observation Beds	9000	Clinic
0681	Trauma Response: Level I	Y	Y	Other		9100	Emergency
0762	Treatment/Observation Room: Observation room	Y	Y	Other		9201	Observation Beds (Distinct Part)
0921	Other Diagnostic Services: Peripheral vascular lab	Y	Y	Other		3650	Vascular Lab

SOURCES: CMS, FY 2023 final rule: HCRIS data file, *https://www.cms.gov/medicare/acute-inpatient-pps/fy-2023-ipps-final-rule-home-page#DataFiles*; CMS, 2023 NFRM OPPS revenue code-to-cost center crosswalk, *https://www.cms.gov/medicaremedicare-fee-service-paymenthospitaloutpatientpps hospital-outpatient-regulations-and-notices/cms-1772-fc*.

Selecting the right revenue code

Considerations for choosing a correct revenue code include whether to report the general versus the detailed classification for the revenue code. In Chapter 4, Section 20.5 of the *Medicare Claims Processing Manual,* CMS states that, absent specific instructions, hospitals are to assign the revenue code that results in the charges being assigned to the same cost center to which the costs of services are assigned in the cost report (CMS, 2023). In other words, CMS wants hospitals to follow the principle of matching expense to revenue with the reporting of revenue codes.

This means the hospital is to use the revenue code that best preserves the relationship between the performing department and the revenue code that relates to the performing department.

As previously explained, the choice of revenue code is informed by a knowledge of the hospital GL and cost reporting. In many situations, this choice is easy and straightforward. The ED is both a type and a location of service, so most ED charges should be reported with the 045x series for ED. But when the revenue code is straightforward for the department, is the hospital confident that all the expenses for those services are reflected in the department's GL so that they match the revenue?

For an example, let's look to drug administration services, such as non-chemotherapy IV injections and infusions. These are commonly performed by nurses in the ED, but also by nurses on nursing units and in infusion clinics and other provider-based outpatient departments of the hospital. For proper revenue code selection, drug administration HCPCS codes should be reported with revenue code 0450 when furnished by ED staff, with revenue code 0510 when furnished by infusion clinic staff, and with revenue code 0260 when furnished by nursing unit staff in other departments, including nursing floors. Unfortunately, there is no better revenue code option for reporting these services when performed on nursing units. Though drug administration services do not have to be part of the room rate, CMS uses the drug CCR when it calculates the expense of drug administration services billed with the 026x revenue code series (CMS, 2014). Hospitals do not include nurse salaries in the drug cost center, so although there is not a better option, revenue code 0260 results in significant underestimation for the cost of these services.

Other types of services have only a single specific revenue code to report. For example, all blood administration is billed with revenue code 0391. This includes inpatient and outpatient accounts. However, these services are furnished by nursing personnel in various departments. The cost reporting staff should reclassify the portion of nursing expense for blood administration from the various departments to this cost center to correctly align expense and revenue. Does this occur at your hospital? CMS understands blood processing costs are not calculated correctly, so it has a special OPPS rate-setting method it uses to mitigate this problem.

Implants also have specific revenue codes: 0275 for pacemakers, 0276 for intraocular lenses, and 0278 for all other implants other than those with an Investigational Device Exemption, which is billed under 0624. Per CMS' instructions, hospitals should segregate these items' expense from all other non-implant medical/surgical supplies to ensure more accurate cost reporting. CMS finalized segregating high-cost devices from lower-cost non-implant surgical supplies due to the lower markup hospitals typically use to price these high-cost items. When the charge is multiplied by the supply CCR based on higher markups, it would significantly underestimate the actual cost of the implants and other high-cost devices.

This issue is known as charge compression. Unfortunately, hospitals generally do not correctly align cost in their cost reports because the average implantable device cost center CCR is less than the CCR for non-implantable supplies! This means the payment rates for implants are even less than if CMS had not made the cost reporting change to begin with. This is an area that cost reporting professionals need to evaluate closely and make appropriate adjustments.

I hope these examples illustrate why it is important that when specific revenue codes are required, chargemaster staff should coordinate with the relevant department and with finance to ensure that the expense associated with the revenue is appropriately recorded in the department's GL and then reported correctly in the Medicare cost report.

Challenges to correct revenue code reporting

There are challenges to keeping expense and revenue matched. This is evident when considering how best to match expense and revenue for hospital supplies, for example. Be cautious when selecting departments where there are no separate (or very few separate) supply charges but the expense for all supplies used is attributed to the department in the GL, as may be the case for most patient care supplies used in the ED. If these supplies are expensed to the ED, but no separate supply charges are reported because they have been packaged into ED procedure and visit charges billed under revenue code 0450, then the cost report preparer or auditors must not reclassify the supply expense out of the ED to the central supply cost center. Reclassification will result in a mismatch of the expense, which is in the ED, and the revenue, which is also in the ED.

Another challenging area is reporting charges for POC lab tests performed directly by nursing or other personnel in a department such as the ED or nursing unit, as discussed earlier. Because POC lab tests must be reported with lab revenue codes, it is important to ensure that the test kit and the staff expense to perform the tests are also reported in the lab cost center in the cost report. I urge readers not to let any payer insist that these tests are part of the accommodation code (e.g., by denying these charges when remitting payment). Per NUBC and HIPAA, these are diagnostic lab tests that must be reported with charges, per the rules, with the correct revenue code, according to CMS' definition of charges in Section 2202.4 of the *Provider Reimbursement Manual, Part 1.*

One way to help cost report preparers is to run a report by revenue department summarizing the annual department patient care revenue by revenue code. In the ED supply example above, there would not be revenue (or not much of it) in the ED under the supply 027x revenue codes. This should alert cost report staff to check whether the expense for the supplies is reflected in the ED cost center. If not, the ED supply expense should be reclassified to the ED to preserve the match of expense to revenue.

Why it matters for hospitals

Why does revenue code selection matter for CMS rate setting? Consider the example of drug administration services. If all the charges are set up under revenue code 0260, defined by NUBC as IV therapy-general, then CMS maps all the charges to the pharmacy or drug cost center. However, this cost center does not include nursing expense; therefore, the data fails to reflect the staff expense associated with the services. As a result, on average, a hospital's pharmacy cost center

has a CCR of 0.184, compared to the average nursing unit's CCR of 0.422 or the ED CCR of 0.155 (see the cost center table above). When CMS multiplies the charges by the pharmacy CCR, it is underestimating the hospital's cost for these services performed on nursing units and overestimating the cost for these services performed in the ED. These are common and frequent services, and it is important that CMS more accurately estimate actual hospital cost. Correct revenue coding enables more accurate cost estimation.

Also consider cardiac computed tomography angiography (CCTA), reported with HCPCS code 75574. Because "CT" is in the title, most hospitals report this test with the CT revenue code 0350, assuming the bulk of the expense is in the CT cost center. However, this assumption is not correct. Most of the expense to perform this test is in the cardiology department, according to a 2020 study published in the *Journal of Cardiovascular Computed Tomography* (Zimmerman et al., 2021). This issue is also reported in various OPPS comment letters. The 2023 national CMS calculated payment rate for this test is $176.73, which is a Level 1 imaging test with contrast. This is below the cost of performing the test, according to the article and commenters.

If hospitals accurately reported this test with a cardiology revenue code, the payment rate would increase because the CCR for cardiology is 0.094 whereas the CCR for CT is 0.034. Unfortunately, hospitals and payers assume the CT revenue code is appropriate despite CMS' guidance on selecting the appropriate revenue code based on where the bulk of the test cost resides. As a result, even though CT revenue code assignment for HCPCS code 75574 does not align with CMS' guidance, OPPS payment rates for CCTA are below the cost to perform the test due to hospitals' misreporting.

Why does it matter? Because community and rural hospitals *cannot afford* to implement CCTA for patients when the payment is below the cost of that service. This is particularly concerning because, in 2021, the American College of Cardiology and the American Heart Association published updated guidelines for stable chest pain that endorsed the use of CCTA as a frontline test in patients presenting with chest pain (Society of Cardiovascular Computed Tomography, 2021). When CCTA is used, it enables better diagnoses and reduces unnecessary procedures—something all patients deserve.

In conclusion, there are hidden and significant costs, risks, and long-term implications to inappropriate revenue code selection that may be reinforced by overreliance on third-party software recommendations rather than on authoritative guidance from the NUBC manual and CMS. Revenue cycle, chargemaster, and cost reporting professionals must work together to safeguard appropriate revenue coding and cost reporting, thereby ensuring adequate reimbursement of services today and in the future. Only with sustainable reimbursement can hospitals afford to provide the best service to their patients.

Let's all work toward full compliance with administrative simplification because I look forward to achieving those incredible savings!

About the author

Rinkle is president of Valorize Consulting and has more than 40 years' experience in healthcare policy, finance, strategy, and revenue management operations. Her expertise spans all CMS reimbursement methodologies and the operational capabilities necessary to achieve accurate and

defensible payment. She has extensive hospital chargemaster, OPPS and physician fee schedule, and provider-based department experience. Rinkle also has significant experience in leading compliance due diligence in support of M&A as well as defense strategies surrounding OIG, DOJ, Recovery Auditors, and other audit agencies, including state Medicaid programs. She has served as an expert witness in litigation and works with device and pharmaceutical manufacturers for their coding and reimbursement support. Rinkle is a frequent public speaker with HCPro and an annual presenter on OPPS at the Institute on Medicare and Medicaid Payment Policy by the American Health Lawyers Association, where she has co-presented with CMS representatives. She is a NAHRI Advisory Board member.

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