Improving Coding for Right Heart Catheterization

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If your facility is having trouble coding heart catheterizations correctly, education may be the missing piece. An atypical number of right or bilateral heart catheterizations can indicate a need for coder education, physician education, or both. The state of Florida identified an opportunity for improvement and is taking steps to monitor and correct this problem.

This article addresses coding data quality in hospitals for cardiovascular inpatients receiving cardiac catheterization, but the findings can be applied to other settings as well. It is a focused study of both utilization and coding of cardiac catheterization procedures in response to a Health Care Financing Administration (HCFA) data analysis (Part A claims) of discharges from 1996 surveillance data.

Since 1984, coding of right heart catheterization (RHC) procedures has been an ongoing concern because of inappropriate coding interpretation or insufficient medical record documentation.[1] Recently Florida Medical Quality Assurance, Inc. (FMQAI), the Florida Peer Review Organization (PRO), completed a utilization and coding- focused review of cardiac catheterization cases. PROs are responsible for performing various audits as part of their agreement with HCFA to identify potential opportunities to improve data quality, utilization, coding, and reimbursement. Because of this study, FMQAI was able to analyze and confirm HCFA's surveillance data, determine the extent and significance of these coding and documentation concerns, and implement intervention.

As a result, FMQAI found an excellent opportunity to educate hospitals, providers, and coding professionals. FMQAI was also able to verify HCFA claims data and address two ongoing concerns: the quality and thoroughness of physician medical record documentation and the coding professional's understanding of how diagnostic cardiac procedures, especially RHCs, should be coded.

Preliminary results of the FMQAI study using inpatient discharges from May 1, 1997, to April 30, 1998, showed an unusual rate of RHC procedures based on coded data. It was FMQAI's responsibility to validate these findings by reviewing inpatient cases reporting heart catheterization procedures. The ICD-9-CM procedure codes are 37.21 for RHC, 37.22 for left heart catheterization (LHC) and 37.23 for bilateral heart catheterization (BHC).

Reviewing the Data

The study demonstrated a potential overuse of RHC procedures despite documented evidence that an RHC is not always effective.[3] The following conditions currently meet Medicare guidelines for performing an RHC: pulmonary hypertension, myocardial infarction, chronic obstructive pulmonary disease, and congestive heart failure. Recently, many cardiologists have begun to argue that more appropriate indications for RHCs are congenital heart disease, particularly right-sided valvular disease, potential cardiac transplant, right ventricular infarct, or severe unexplained biventricular failure.[4]

According to HCFA surveillance data, Florida's rate of BHC was 36 percent, compared with the national rate of 23 percent in 1996.[5] During the FMQAI study period, a total of 48,569 inpatient heart catheterization procedures were billed to Medicare in Florida. Although this review only analyzed a statewide sample of 197 cases, they found 26 cases (13 percent) for which the hospital had billed BHC procedures inappropriately. Fourteen (53.8 percent) of the errors were due to coder misinterpretation, 10 (38.5 percent) cases were a combination of coding interpretation error and insufficient physician documentation, and two (7.7 percent) cases were problematic due to insufficient physician documentation.

Identifying the Problems

Coding professionals often cite documentation problems as the reason for coding or abstracting error, because physicians may not accurately document an exact description of the catheterization procedure performed. Documentation issues include not

only erroneous, illegible, inadequate, or absent information, but also discrepancies among progress notes, final summaries, and procedure notes. If documentation is the key issue, physicians must be educated so that the specifics of diagnostic or therapeutic cardiology procedures are accurately outlined within the medical record.

In addition to these physician documentation issues, there are changes in patient management, technical changes, and improvements in cardiac diagnostic procedures to consider. Coding professionals must continue to reference *Coding Clinic* for instructions pertaining to coding cardiac catheterization procedures. Two issues note that a diagnostic heart catheterization procedure usually includes measurements for intracardiac and intravascular pressures, pressure pulse tracking, blood-saturation gases, calculation of cardiac output, and vascular resistance and is performed in a room (laboratory) specially equipped for this procedure.[6,7] Diagnostic cardiac catheterization is often combined with some type of angiography or arteriography procedure. However, coronary arteriogram, right and left, are often performed without a diagnostic heart catheterization and should not be construed as a diagnostic heart catheterization. The arteriogram procedure is designed to evaluate the arteries, not the heart.

An RHC procedure includes a study of right heart structures, the right atrium and ventricle, the tricuspid and pulmonic valves, main pulmonary artery and branches, and the superior and inferior vena cava. If the report only describes the left atrium and ventricle, the mitral and aortic valves, ascending left aorta and possible pulmonary veins, the coder should only code a LHC, after carefully reviewing the physician's documentation or querying the physician.

Hospital coders have often discussed various coding difficulties related to cardiovascular inpatient cases, particularly cardiac catheterization procedures. Coder interpretation of procedure notes, dictated reports, or other physician documentation played a role in the coding error rates identified in this study. Coders can be confused about whether a RHC was performed if coronary angiography studies were completed at the same time. Less than optimal documentation may also confuse the coder if the angiography procedure involving right coronary vessels is difficult to discriminate from right heart structure analysis. When necessary, it is important to clarify the definition of a RHC procedure compared to a Swan Ganz measurement procedure, a BHC, and an LHC. Coding Clinic advises not to assign code 37.21 with code 89.63 or 89.64 unless a diagnostic cardiac catheterization was performed during the episode of care and a written report was included.8 A Swan Ganz catheter is a flow-directed catheter passed to the pulmonary artery via the heart ventricle for purposes of measuring and monitoring arterial pressure.

Assessing the Codes

While cardiac catheterization ICD-9-CM procedure code range 37.21 to 37.23 does not affect the DRG hospital payment if the fourth digit is changed, accurate coding of the procedure will affect provider profiling. First Coast Service Options, Florida's Medicare Carrier (Part B), was consulted during this study to determine if physicians were reimbursed specifically for the 197 cases that were in the final phase of the focused review. Of the final 26 cases demonstrating a lack of documented evidence for a RHC, it appeared that coding for the professional component demonstrated an error in at least 10 cases. Reimbursement occurred in two cases of billed RHC, despite lack of documentation to justify that the procedure was performed.

Data quality and coding departments should consider an internal focused review of cardiac catheterization procedures, performed in inpatient or outpatient settings, to assure accurate reporting. The percentage of RHCs performed is decreasing annually. However, if specific hospitals continue to report atypical numbers, additional focused reviews could be triggered.

This study found large variation in utilization of RHCs among Florida hospitals, including a pattern of utilization that appeared unrelated to patient indications. This reveals the need to update Medicare RHC medical necessity guidelines. A coding variation was also identified, demonstrating the necessity of:

- updating coding guidelines
- evaluating the use of coding guidelines
- performing an audit trail to assure a correct understanding and coding of cardiac procedures.

The re-education of both physicians and coders will be necessary for the documentation and coding processes to improve. Coding professionals and physicians must work together to ensure accurate documentation and interpretation for the coding of cardiac catheterization procedures.

Notes

1. American Hospital Association. *Coding Clinic* 1, no. 2 (1984): 19.

2. American Hospital Association. *Coding Clinic* 1, no. 4 (1984): 19.

3. American College of Cardiology/American Heart Association Ad Hoc Task Force on Cardiac Catheterization. "ACC/AHA Guidelines for Cardiac Catheterization and Cardiac Catheterization Laboratories." *Journal of the American College of Cardiology* 18, no. 5 (1991): 1149-82.

4. Bing, M.L., et al. "Medical Necessity for Right Heart Catheterization." *Texas Heart Institute Journal* 24, no. 2 (1997): 109-13.

5. Denton, C.P., et al. "Comparison of Doppler Echocardiography and Right Heart Catheterization to Assess Pulmonary Hypertension in Systemic Sclerosis." *British Journal of Rheumatology* 36, no. 2 (1997): 239-43.

6. American Hospital Association. *Coding Clinic* 2, no. 1 (1985): 7-8

7. American Hospital Association, *Coding Clinic* 4, no. 3 (1987): 11-12

8. American Hospital Association. *Coding Clinic* 2, no. 1 (1985): 7-8.

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