

Beyond Reimbursement

For most doctors, the purpose of coding is reimbursement. But there's much more to it than that. Reimbursement is just one part of what results from documentation and coding.

Chapter in Brief:

- ▲ *Accurate billing and coding affect more than the bottom line: Coding data is used for analyzing health trends and outcomes, monitoring healthcare quality, comparing physician performance, and developing marketing campaigns.*
- ▲ *Analysis of coding trends within the healthcare setting has the potential to improve healthcare by focusing attention on problems and identifying solutions.*
- ▲ *Payers may use coding to put doctors in “tiers” or levels depending on their analysis of the doctors’ efficiency and quality of care.*
- ▲ *Physicians can take a proactive approach to improving the accuracy of coding within the practice.*

When physicians think about coding, they relate it to reimbursement—the codes they choose dictate how much money the payer will give them for services provided. But payment is only one result of coding. Today the codes are used in many different ways, and a physician’s coding and billing practices affect considerably more than the bottom line.

“One thing that everyone always knows is that the codes result in payment,” says Garry L. Huff, MD, CCS, associate director of DRG Review, Inc., a national consulting firm that provides

For the treatment of hypertension



BYSTOLIC.

Significant blood pressure reductions
with a low incidence of side effects.¹⁻³

Bystolic 
(nebivolol) tablets
www.BYSTOLIC.com

Important Safety Information

Patients being treated with BYSTOLIC should be advised against abrupt discontinuation of therapy. Severe exacerbation of angina and the occurrence of myocardial infarction and ventricular arrhythmias have been reported following the abrupt cessation of therapy with beta blockers. When discontinuation is planned, the dosage should be reduced gradually over a 1- to 2-week period and the patient carefully monitored.

BYSTOLIC is contraindicated in severe bradycardia, heart block greater than first degree, cardiogenic shock, decompensated cardiac failure, sick sinus syndrome (unless a permanent pacemaker is in place), severe hepatic impairment (Child-Pugh >B), and in patients who are hypersensitive to any component of this product.

BYSTOLIC should be used with caution in patients with peripheral vascular disease, thyrotoxicosis, in patients treated concomitantly with beta blockers and calcium channel blockers of the verapamil and diltiazem type (ECG and blood pressure should be monitored), severe renal impairment, and any degree of hepatic impairment or in patients undergoing major surgery. In patients who have compensated congestive heart failure, BYSTOLIC should be administered cautiously. If heart failure worsens, discontinuation of BYSTOLIC should be considered. Caution should also be used in diabetic patients as beta blockers may mask some of the manifestations of hypoglycemia, particularly tachycardia.

Use caution when BYSTOLIC is co-administered with CYP2D6 inhibitors (quinidine, propafenone, fluoxetine, paroxetine, etc). When BYSTOLIC is administered with fluoxetine, significant increases in d-nebivolol may be observed (ie, an 8-fold increase in AUC).

In general, patients with bronchospastic disease should not receive beta blockers.

BYSTOLIC should not be combined with other beta blockers.

The most common adverse events with BYSTOLIC versus placebo (approximately $\geq 1\%$ and greater than placebo) were headache, fatigue, dizziness, diarrhea, nausea, insomnia, chest pain, bradycardia, dyspnea, rash, and peripheral edema.

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Please see brief summary of Prescribing Information on adjacent page.

References: 1. BYSTOLIC [package insert]. St. Louis, Mo: Forest Pharmaceuticals, Inc.; 2008. 2. Data on file. Forest Laboratories, Inc. 3. Saunders E, Smith WB, DeSalvo KB, Sullivan WA. The efficacy and tolerability of nebivolol in hypertensive African American patients. *J Clin Hypertens*. 2007;9:866-875.

Bystolic

(nebivolol) tablets
2.5 mg, 5 mg, 10 mg and 20 mg

Rx Only

Brief Summary: For complete details please see full Prescribing Information for BYSTOLIC.

INDICATIONS AND USAGE

BYSTOLIC is indicated for the treatment of hypertension. BYSTOLIC may be used alone or in combination with other antihypertensive agents.

CONTRAINDICATIONS

BYSTOLIC is contraindicated in patients with severe bradycardia, heart block greater than first degree, cardiogenic shock, decompensated cardiac failure, sick sinus syndrome (unless a permanent pacemaker is in place), or severe hepatic impairment (Child-Pugh >B), and in patients who are hypersensitive to any component of this product.

WARNINGS

Abrupt Cessation of Therapy

Patients with coronary artery disease treated with BYSTOLIC should be advised against abrupt discontinuation of therapy. Severe exacerbation of angina and the occurrence of myocardial infarction and ventricular arrhythmias have been reported in patients with coronary artery disease following the abrupt discontinuation of therapy with β -blockers. Myocardial infarction and ventricular arrhythmias may occur with or without preceding exacerbation of the angina pectoris. Even patients without overt coronary artery disease should be cautioned against interruption or abrupt discontinuation of therapy. As with other β -blockers, when discontinuation of BYSTOLIC is planned, patients should be carefully observed and advised to minimize physical activity. BYSTOLIC should be tapered over 1 to 2 weeks when possible. If the angina worsens or acute coronary insufficiency develops, it is recommended that BYSTOLIC be promptly reinstated, at least temporarily.

Cardiac Failure

Sympathetic stimulation is a vital component supporting circulatory function in the setting of congestive heart failure, and β -blockade may result in further depression of myocardial contractility and precipitate more severe failure. In patients who have compensated congestive heart failure, BYSTOLIC should be administered cautiously. If heart failure worsens, discontinuation of BYSTOLIC should be considered.

Angina and Acute Myocardial Infarction

BYSTOLIC was not studied in patients with angina pectoris or who had a recent MI.

Bronchospastic Diseases

In general, patients with bronchospastic diseases should not receive β -blockers.

Anesthesia and Major Surgery

If BYSTOLIC is to be continued perioperatively, patients should be closely monitored when anesthetic agents which depress myocardial function, such as ether, cyclopropane, and trichloroethylene, are used. If β -blocking therapy is withdrawn prior to major surgery, the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

The β -blocking effects of BYSTOLIC can be reversed by β -agonists, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Additionally, difficulty in restarting and maintaining the heart-beat has been reported with β -blockers.

Diabetes and Hypoglycemia

β -blockers may mask some of the manifestations of hypoglycemia, particularly tachycardia. Nonselective β -blockers may potentiate insulin-induced hypoglycemia and delay recovery of serum glucose levels. It is not known whether nebivolol has these effects. Patients subject to spontaneous hypoglycemia, or diabetic patients receiving insulin or oral hypoglycemic agents, should be advised about these possibilities and nebivolol should be used with caution.

Thyrotoxicosis

β -blockers may mask clinical signs of hyperthyroidism, such as tachycardia. Abrupt withdrawal of β -blockers may be followed by an exacerbation of the symptoms of hyperthyroidism or may precipitate a thyroid storm.

Peripheral Vascular Disease

β -blockers can precipitate or aggravate symptoms of arterial insufficiency in patients with peripheral vascular disease. Caution should be exercised in these patients.

Non-dihydropyridine Calcium Channel Blockers

Because of significant negative inotropic and chronotropic effects in patients treated with β -blockers and calcium channel blockers of the verapamil and diltiazem type, caution should be used in patients treated concomitantly with these agents and ECG and blood pressure should be monitored.

PRECAUTIONS

Use with CYP2D6 Inhibitors

Nebivolol exposure increases with inhibition of CYP2D6 (see **Drug Interactions**). The dose of BYSTOLIC may need to be reduced.

Impaired Renal Function

BYSTOLIC should be used with caution in patients with severe renal impairment because of decreased renal clearance. BYSTOLIC has not been studied in patients receiving dialysis.

Impaired Hepatic Function

BYSTOLIC should be used with caution in patients with moderate hepatic impairment because of decreased metabolism. Since BYSTOLIC has not been studied in patients with severe hepatic impairment, BYSTOLIC is contraindicated in this population (see **CLINICAL PHARMACOLOGY, Special Populations and DOSAGE AND ADMINISTRATION**).

Risk of Anaphylactic Reactions

While taking β -blockers, patients with a history of severe anaphylactic reactions to a variety of allergens may be more reactive to repeated challenge either accidental, diagnostic, or therapeutic. Such patients may be unresponsive to the usual doses of epinephrine used to treat allergic reactions.

In patients with known or suspected pheochromocytoma, an α -blocker should be initiated prior to the use of any β -blocker.

Information for Patients

Patients should be advised to take BYSTOLIC regularly and continuously, as directed. BYSTOLIC can be taken with or without food. If a dose is missed, the patient should take the next scheduled dose only (without doubling it). Patients should not interrupt or discontinue BYSTOLIC without consulting the physician.

Patients should know how they react to this medicine before they operate automobiles, use machinery, or engage in other tasks requiring alertness.

Patients should be advised to consult a physician if any difficulty in breathing occurs, or if they develop signs or symptoms of worsening congestive heart failure such as weight gain or increasing shortness of breath, or excessive bradycardia.

Patients subject to spontaneous hypoglycemia, or diabetic patients receiving insulin or oral hypoglycemic agents, should be cautioned that β -blockers may mask some of the manifestations of hypoglycemia, particularly tachycardia. Nebivolol should be used with caution in these patients.

Drug Interactions

BYSTOLIC should be used with care when myocardial depressants or inhibitors of AV conduction, such as certain calcium antagonists (particularly of the phenylalkylamine [verapamil] and benzothiazepine [diltiazem] classes), or antiarrhythmic agents, such as disopyramide, are used concurrently. Both digitalis glycosides and β -blockers slow atrioventricular conduction and decrease heart rate. Concomitant use can increase the risk of bradycardia.

BYSTOLIC should not be combined with other β -blockers. Patients receiving catecholamine-depleting drugs, such as reserpine or guanethidine, should be closely monitored, because the added β -blocking action of BYSTOLIC may produce excessive reduction of sympathetic activity. In patients who are receiving BYSTOLIC and clonidine, BYSTOLIC should be discontinued for several days before the gradual tapering of clonidine.

CYP2D6 Inhibitors: Use caution when BYSTOLIC is co-administered with CYP2D6 inhibitors (quinidine, propafenone, fluoxetine, paroxetine, etc.) (see **CLINICAL PHARMACOLOGY, Drug Interactions**).

Carcinogenesis, Mutagenesis, Impairment of Fertility

In a two-year study of nebivolol in mice, a statistically significant increase in the incidence of testicular Leydig cell hyperplasia and adenomas was observed at 40 mg/kg/day (5 times the maximally recommended human dose of 40 mg on a mg/m² basis). Similar findings were not reported in mice administered doses equal to approximately 0.3 or 1.2 times the maximum recommended human dose. No evidence of a tumorigenic effect was observed in a 24-month study in Wistar rats receiving doses of nebivolol 2.5, 10 and 40 mg/kg/day (equivalent to 0.6, 2.4, and 10 times the maximally recommended human dose). Co-administration of dihydrotestosterone reduced blood LH levels and prevented the Leydig cell hyperplasia, consistent with an indirect LH-mediated effect of nebivolol in mice and not thought to be clinically relevant in man.

A randomized, double-blind, placebo- and active-controlled, parallel-group study in healthy male volunteers was conducted to determine the effects of nebivolol on adrenal function, luteinizing hormone, and testosterone levels. This study demonstrated that 6 weeks of daily dosing with 10 mg of nebivolol had no significant effect on ACTH-stimulated mean serum cortisol AUC_{0-120 min}, serum LH, or serum total testosterone.

Effects on spermatogenesis were seen in male rats and mice at \approx 40 mg/kg/day (10 and 5 times the MRHD, respectively). For rats the effects on spermatogenesis were not reversed and may have worsened during a four-week recovery period. The effects of nebivolol on sperm in mice, however, were partially reversible.

Mutagenesis: Nebivolol was not genotoxic when tested in a battery of assays (Ames, *in vitro* mouse lymphoma TK⁺, *in vitro* human peripheral lymphocyte chromosome aberration, *in vivo* Drosophila melanogaster sex-linked recessive lethal, and *in vivo* mouse bone marrow micronucleus tests).

Pregnancy: Teratogenic Effects. Pregnancy Category C.

Decreased pup body weights occurred at 1.25 and 2.5 mg/kg in rats, when exposed during the perinatal period (late gestation, parturition and lactation). At 5 mg/kg and higher doses (1.2 times the MRHD), prolonged gestation, dystocia and reduced maternal care were produced with corresponding increases in late fetal deaths and stillbirths and decreased birth weight, live litter size and pup survival. Insufficient numbers of pups survived at 5 mg/kg to evaluate the offspring for reproductive performance.

In studies in which pregnant rats were given nebivolol during organogenesis, reduced fetal body weights were observed at maternally toxic doses of 20 and 40 mg/kg/day (5 and 10 times the MRHD), and small reversible delays in sternal and thoracic ossification associated with the reduced fetal body weights and a small increase in resorption occurred at 40 mg/kg/day (10 times the MRHD). No adverse effects on embryo-fetal viability, sex, weight or morphology were observed in studies in which nebivolol was given to pregnant rabbits at doses as high as 20 mg/kg/day (10 times the MRHD).

Labor and Delivery

Nebivolol caused prolonged gestation and dystocia at doses ≥ 5 mg/kg in rats (1.2 times the MRHD). These effects were associated with increased fetal deaths and stillborn pups, and decreased birth weight, live litter size and pup survival rate, events that occurred only when nebivolol was given during the perinatal period (late gestation, parturition and lactation).

No studies of nebivolol were conducted in pregnant women. BYSTOLIC should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers

Studies in rats have shown that nebivolol or its metabolites cross the placental barrier and are excreted in breast milk. It is not known whether this drug is excreted in human milk.

Because of the potential for β -blockers to produce serious adverse reactions in nursing infants, especially bradycardia, BYSTOLIC is not recommended during nursing.

Geriatric Use

Of the 8200 patients in the U.S.-sponsored placebo-controlled clinical hypertension studies, 478 patients were 65 years of age or older. No overall differences in efficacy or in the incidence of adverse events were observed between older and younger patients.

Pediatric Use

Safety and effectiveness in pediatric patients have not been established. Pediatric studies in ages newborn to 18 years old have not been conducted because of incomplete characterization of developmental toxicity and possible adverse effects on long-term fertility (see **Carcinogenesis, Mutagenesis, and Impairment of Fertility**).

ADVERSE REACTIONS

The data described below reflect worldwide clinical trial exposure to BYSTOLIC in 6545 patients, including 5038 patients treated for hypertension and the remaining 1507 subjects treated for other cardiovascular diseases. Doses ranged from 0.5 mg to 40 mg. Patients received BYSTOLIC for up to 24 months, with over 1900 patients treated for at least 6 months, and approximately 1300 patients for more than one year. In placebo-controlled clinical trials comparing BYSTOLIC with placebo, discontinuation of therapy due to adverse events was reported in 2.8% of patients treated with nebivolol and 2.2% of patients given placebo. The most common adverse events that led to discontinuation of BYSTOLIC were headache (0.4%), nausea (0.2%) and bradycardia (0.2%).

Adverse Reactions in Controlled Trials

Table 1 lists treatment-emergent signs and symptoms that were reported in three 12-week, placebo-controlled monotherapy trials involving 1597 hypertensive patients treated with either 5 mg, 10 mg or 20-40 mg of BYSTOLIC and 205 patients given placebo and for which the rate of occurrence was at least 1% of patients treated with nebivolol and greater than the rate for those treated with placebo in at least one dose group.

Table 1. Treatment-Emergent Adverse Events with an Incidence (over 6 weeks) $\geq 1\%$ in BYSTOLIC-Treated Patients and at a Higher Frequency than Placebo-Treated Patients

	Placebo (n = 205) (%)	Nebivolol 5 mg (n = 459) (%)	Nebivolol 10 mg (n = 461) (%)	Nebivolol 20-40 mg (n = 677) (%)
Headache	6	9	6	7
Fatigue	1	2	2	5
Dizziness	2	2	3	4
Diarrhea	2	2	2	3
Nausea	0	1	3	2
Insomnia	0	1	1	1
Chest pain	0	0	1	1
Bradycardia	0	0	0	1
Dyspnea	0	0	1	1
Rash	0	0	1	1
Peripheral edema	0	1	1	1

Other Adverse Events Observed During Worldwide Clinical Trials

Listed below are other reported adverse events with an incidence of at least 1% in the more than 5300 patients treated with BYSTOLIC in controlled or open-label trials, whether or not attributed to treatment, except for those already appearing in Table 1, terms too general to be informative, minor symptoms, or events unlikely to be attributable to drug because they are common in the population. These adverse events were in most cases observed at a similar frequency in placebo-treated patients in the controlled studies.

Body as a Whole: asthenia.

Gastrointestinal System Disorders: abdominal pain

Metabolic and Nutritional Disorders: hypercholesterolemia and hyperuricemia

Nervous System Disorders: paraesthesia

Laboratory

In controlled monotherapy trials, BYSTOLIC was associated with an increase in BUN, uric acid, triglycerides and a decrease in HDL cholesterol and platelet count.

Events Identified from Spontaneous Reports of BYSTOLIC Received Worldwide

The following adverse events have been identified from spontaneous reports of BYSTOLIC received worldwide and have not been listed elsewhere. These adverse events have been chosen for inclusion due to a combination of seriousness, frequency of reporting or potential causal connection to BYSTOLIC. Events common in the population have generally been omitted. Because these events were reported voluntarily from a population of uncertain size, it is not possible to estimate their frequency or establish a causal relationship to BYSTOLIC exposure: abnormal hepatic function (including increased AST, ALT and bilirubin), acute pulmonary edema, acute renal failure, atrioventricular block (both second- and third-degree), bronchospasm, erectile dysfunction, hypersensitivity (including urticaria, allergic vasculitis and rare reports of angioedema), myocardial infarction, pruritus, psoriasis, Raynaud's phenomenon, peripheral ischemia/claudication, somnolence, syncope, thrombocytopenia, various rashes and skin disorders, vertigo, and vomiting.

OVERDOSAGE

In clinical trials and worldwide postmarketing experience there were reports of BYSTOLIC overdose. The most common signs and symptoms associated with BYSTOLIC overdose are bradycardia and hypotension. Other important adverse events reported with BYSTOLIC overdose include cardiac failure, dizziness, hypoglycemia, fatigue and vomiting. Other adverse events associated with β -blocker overdose include bronchospasm and heart block.

The largest known ingestion of BYSTOLIC worldwide involved a patient who ingested up to 500 mg of BYSTOLIC along with several 100 mg tablets of acetylsalicylic acid in a suicide attempt. The patient experienced hyperhidrosis, pallor, depressed level of consciousness, hypokinesia, hypotension, sinus bradycardia, hypoglycemia, hypokalemia, respiratory failure and vomiting. The patient recovered.

Due to extensive drug binding to plasma proteins, hemodialysis is not expected to enhance nebivolol clearance.

If overdose occurs, BYSTOLIC should be stopped and general supportive and specific symptomatic treatment should be provided. Based on expected pharmacologic actions and recommendations for other β -blockers, the following general measures should be considered when clinically warranted:

Bradycardia: Administer IV atropine. If the response is inadequate, isoproterenol or another agent with positive chronotropic properties may be given cautiously. Under some circumstances, transthoracic or transvenous pacemaker placement may be necessary.

Hypotension: Administer IV fluids and vasopressors. Intravenous glucagon may be useful.

Heart Block (second or third degree): Patients should be carefully monitored and treated with isoproterenol infusion. Under some circumstances, transthoracic or transvenous pacemaker placement may be necessary.

Congestive Heart Failure: Initiate therapy with digitalis glycoside and diuretics. In certain cases, consideration should be given to the use of inotropic and vasodilating agents.

Bronchospasm: Administer bronchodilator therapy such as a short-acting inhaled β_2 -agonist and/or aminophylline.

Hypoglycemia: Administer IV glucose. Repeated doses of IV glucose or possibly glucagon may be required.

In the event of intoxication where there are symptoms of shock, treatment must be continued for a sufficiently long period consistent with the 12-19 hour effective half-life of BYSTOLIC. Supportive measures should continue until clinical stability is achieved.

Call the National Poison Control Center (800-222-1222) for the most current information on β -blocker overdose treatment.

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medical record coding quality assessments and educational programs to help ensure accurate code reporting. “Payment is the biggest thing on any provider’s mind [when it comes to coding]. Right behind that is compliance, making sure I’m not getting overpaid or underpaid. Thirdly, performance, which is being monitored by payers. That information is, and will continue to be, made available to the public.”

The ICD coding system was developed by the World Health Organization to track morbidity and mortality statistics. “You ask yourself, when you hear on the news that X percent of Americans have low back pain, where does this information come from?” says Patricia Hubbard CPC, CPC-OBGYN, a medical practice manager in New York State. “It comes from the use of these diagnosis codes. That data is used to analyze healthcare trends and project costs, all kinds of things most people don’t think about.”

“Payment is the biggest thing on any provider’s mind [when it comes to coding],” says Dr. Huff. “Right behind that is compliance, making sure I’m not getting overpaid or underpaid. Thirdly, performance, which is being monitored by payers.”

In terms of planning preventive services, “Analyzing the diagnosis codes is helpful to detect trends from a public health perspective, for disease management,” says Nancy Enos, FACMPE, CPC, CPC-I, CPC-E/M, a consultant and coding instructor based in Warwick, R.I.

Coding data is also used for comparison purposes in hospitals and health organizations, says Rita Bowen, MA, RHIA, CHPS, SSGB, enterprise director of HIM Services for Erlanger Health System in Chattanooga, Tenn. “Aside from reimbursement, all kinds of data is being taken from the record or data warehouse, from the UB [uniform billing format] and billing info,” says Ms. Bowen, president-elect of American Health Information Management Association (AHIMA). The data is used to compare physicians and healthcare intuitions on quality of care and patient outcomes. This is the reason why coding should accu-

rately reflect the severity of the condition and the intensity of services provided: to present an accurate picture of the practice's patient population and the care provided. "It's important for physicians to be aware of this. You're being compared with other [physicians treating similar types of patients]."

Dr. Huff explains that codes become part of the hospital record and are used as a tool to measure performance. "The diagnostic codes submitted on bills become part of an administrative database that can be used to make an assessment, rightly or wrongly, regarding the quality of healthcare provided by the hospital and physicians involved with treating the patient," says Dr. Huff. "For example, 30-day mortality rates are reported for public information for specific diagnoses and surgeries. If you're a physician associated with a hospital with an excessive 30-day mortality rate relative to the risk, people aren't going to want to use you."

An increasing number of healthcare quality reporting Websites, such as *Healthgrades.com*, profile doctors on the quality of care they're delivering, using evidence-based guidelines. For example, if a patient has COPD, the doctor's treatment would be analyzed to determine whether he has given an influenza shot, says Gerald J. Russo, MD, FAAP, chief medical officer of Bloodhound Technologies, a claims-editing provider based in North Carolina.

While consumers might look at *Healthgrades.com* to decide which hospital or physician to use, hospital administrators also subscribe to various national comparison groups to see how their doctors stack up.

Another use of coding data is for marketing, says Donna D. Wilson, RHIA, CCS, senior director in the consulting division of Compliance Concepts, Inc., a Pennsylvania-based firm that helps healthcare organizations comply with federal regulations, including coding and audits. For example, a healthcare system planning an advertising campaign that shows it performed the most total joint replacements over a specified period of time needs accurate data to defend its claim. Before beginning the campaign, the advertiser would calculate the number of procedures based on the coded data. "This ensures no false advertising," says Ms. Wilson.

But the problem with depending on coding for analyzing healthcare trends or rating physician performance is that although physicians may all be using similar codes, they don't all code in a consistent fashion. One study, "Reliability of SNOMED-CT Coding by Three Physicians Using Two Terminology Browsers" (*AMIA Annual Symposium Proceedings Archive*, 2006: 131–135), checked the coding of three physicians for five ophthalmology case presentations. Even though the physicians used a computerized coding system in conjunction with an electronic health record, the physicians chose the same codes only 44 to 53 percent of the time.

The authors of the study suggest that physician training, terminology refinement, and technology improvements would help increase inter-coder reliability. The first step in that process is for physicians and their staffs to become more aware of the many ways coding is used in our healthcare system.

Coding for Quality Improvement

Analyzing coding trends within the healthcare setting has the potential to improve healthcare. Dr. Huff relates that he consulted with one hospital that had an increased mortality rate and length of stay in a certain group of surgical patients. "The hospital found there was a higher incidence of post-operative wound infection," he says. In looking at the surgical and post-operative process, the hospital staff found something they could do to improve that process, and mortality rates declined. Because the post-operative wounds were coded in the record, the hospital could search for those records, analyze the cause, and take corrective action, says Dr. Huff.

Coding data can also be used to generate "physician report cards" and analyze quality-of-care issues. While physician report cards are generally an inpatient phenomenon, they are sometimes used in outpatient settings as well.

For example, an analysis of total joint replacements done in a hospital setting would identify the best-performing physicians in regard to length of stay, readmission rate, resource consumption (e.g. physical therapy usage, pre- and post-op radiologist testing, operating room time), complication rate, morbidity, and mortality. After drilling down the statistics by physician, Ms. Wilson



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recommends reviewing the data with the department chair, who can review trends and patterns for all physicians in that department. “Dr. A’s patients might have a three-day average length of stay, while Dr. B’s patients stay six days,” says Ms. Wilson. “Neither physician has any differences in complication rate or mortality. At a peer-to-peer level, the physicians and the chair talk about what the physicians do differently. They find that Dr. B’s increased length of stay is because he usually orders additional tests, which could be performed on an outpatient basis after discharge.”

Reviewing this information might result in a change of practice habits while improving or maintaining quality of care and decreasing resource usage.

However, unfavorable numbers on a physician report aren’t always the attending physician’s fault. Perhaps the coder misunderstood the documentation in the medical record. For example, Ms. Wilson notes, “When you have a total joint replacement, you’re expected to lose a certain amount of blood. Some patients actually donate their own blood preoperatively to be transfused intraoperatively. The attending physician documents acute blood loss anemia in the medical record when in fact this is an expected occurrence and not a complication.” She adds that if the coder mistakenly uses the code for a post-operative complication, it makes the doctor’s and hospital’s numbers look worse for the procedure on Websites like *Healthgrades.com*.

To make the coding more accurate, she suggests having physicians and coders work together to determine correct documenta-

tion and coding guidelines. “It’s education from both ends,” Ms. Wilson says.

Doctors are usually receptive to feedback about their coding and documentation, she says. “The majority of physicians do want to know how they’re being portrayed through public reporting,” she says.

While an unfavorable report is sometimes the coder’s fault, physicians need to look hard at their own actions. “It’s easier if they can blame it on the coders, but it’s not always the case,” Ms. Wilson says.

While an unfavorable report is sometimes the coder’s fault, physicians need to look hard at their own actions. “It’s easier if they can blame it on the coders, but it’s not always the case,” Ms. Wilson says, adding that the physician may be ordering too many tests or doing something to lead to unfavorable numbers.

“Change starts by getting the physician engaged,” Ms. Wilson says. She gives an example of a physician whose operating room time ran 20 minutes longer than that of his peers for the same procedure. After some discussion, the physician realized that the clock began ticking as soon as he entered the operating room. “The clock is ticking and he’s being Mr. Friendly, talking and setting up his iPod,” she notes. Now he does these things before walking into the OR. “It’s simple things like that, it’s a matter of talking to the physicians and showing them the data.”

Ms. Bowen agrees that this process helps, especially when the physician can see hard evidence. “The biggest improvement comes when a physician sees comparison data. Dr. X knows his patients are just as sick as Dr. Y’s patients,” she says. Ms. Bowen adds that when physicians see their *healthgrades.com* data, or a comparison from one hospital to another, that also motivates them to document better.

Ms. Bowen says that her organization has a quality oversight committee, which obtains comparison data from several sources. The committee works with other staff members to improve documentation. “We have a clinical documentation improvement program where we provide feedback to the doctors. We make

available the coding sheets (and hospital electronic medical records) for the doctors to see, which also helps them with their own office coding,” she says. Several nurses randomly review medical records, discussing them with the physician, usually within 24 hours of the encounter. The nurse may ask the doctor to expand on something or answer a question so the coder can code more accurately.

Physician Profiling

It’s not just hospitals that profile physicians via coding. Many larger insurance carriers are profiling physicians as well. And their methods aren’t synchronized. “One of the dilemmas we face is that if there are eight carriers doing it, there are eight systems or criteria they’re using,” says Thomas Felger, MD, FAAP, a board member of the American Academy of Family Practitioners and a coding instructor. “There’s an effort to nationalize and standardize it. If you don’t know what quirks a company has, you can’t necessarily meet their expectations. If you do everything perfectly, in an ideal world, it wouldn’t matter.”

Among physicians with managed care contracts, the average number of contracts is 13, according to *Managed Care Magazine* (June 2006). This makes it difficult to keep track of each carrier’s profiling methods, let alone coding and billing issues.

The impact of profiling by payers is still unclear, according to Dr. Felger. “I don’t know that we know yet the impact of profiling. In some programs there’s been a fair amount of extra money [paid to physicians] for documenting quality. But the verdict [on actual quality improvement and how it may affect physician compensation and profiling] isn’t in,” he says.

According to Dr. Felger, the Medicare reporting program (detailed later) is different from what private payers are doing. “If you’re going to rate, and pay more or less based on that, you need to do it correctly,” he says. “The results have been mixed in some surveys. The theory is there and it’s probably correct, in terms of saving money, but it’s not there yet.”

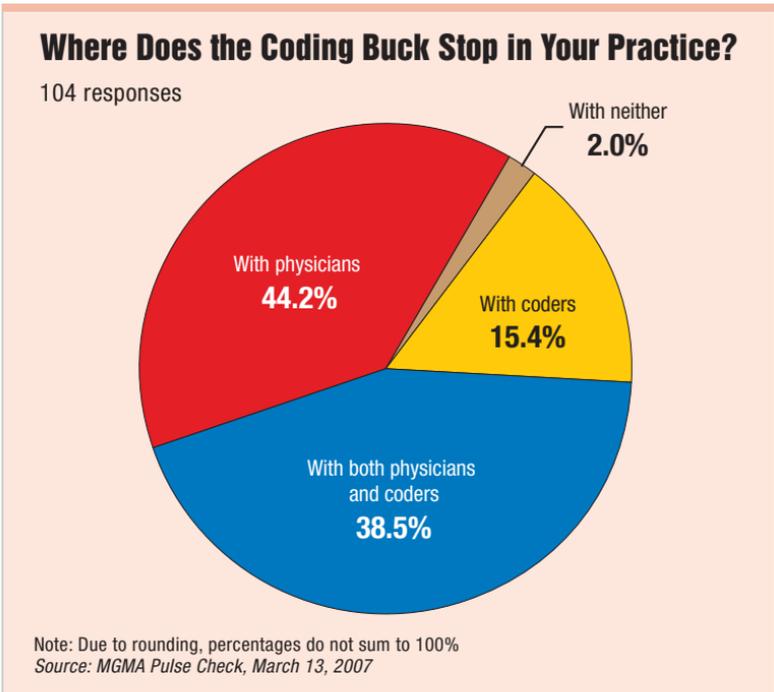
The American Medical Association details on its Website how four private carriers plus Medicare are profiling physicians. For more about this, go to www.ama-assn.org, click on the Legislation and Advocacy tab, and choose Practice Management tips.

Pay-for-performance

The concept of pay-for-performance is relatively new and is currently applied mostly in the hospital setting, according to Dr. Huff.

For a number of years, hospitals voluntarily submitted data on the treatment of patients. Then this data became mandatory, he says, and hospitals didn't get full payment unless they reported their statistics. "You have the same thing in the doctors' offices now," Dr. Huff says. "They're in the voluntary phase. We know that in certain areas, pay-for-performance is affecting the physician."

Doctors need to realize, says Dr. Huff, that hospitals collect outcome statistics, and they're reported on Websites like Hospital Compare (<http://www.hospitalcompare.hhs.gov>). Even though statistics are reported for the hospital as a whole rather than by individual physician, if a hospital's overall scores are not good, they reflect poorly on the individual physicians as well. "If you're affiliated with a hospital with a higher-than-expected



mortality rate for heart failure, and people research that, it's not good for you," he says, adding that Medicare now draws statistics on conditions present on admission. "If certain conditions arise after admission, Medicare can decrease your payment," he notes. Medicare instituted this rule to make hospitals more accountable for their care and to avoid paying for hospital-acquired conditions like a bone broken during hospitalization or a decubitus ulcer developed during the stay.

Dr. Huff suggests that this is the future of medical offices as well. "They want to apply this to all venues of patient care," he says, adding that if a preventable problem affects the cost of

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care, Medicare will balk at payment. "Medicare doesn't want to pay for avoidable complications," he says.

More than 52 percent of health plans, covering 81 percent of patients enrolled in HMOs, used pay-for-performance plans during 2005, according to "Pay for Performance in Commercial HMOs," a *New England Journal of Medicine* study (November 2, 2006). The study found some regional differences; for example, Southern states were less likely to use pay-for-performance than other regions. And carriers that require patients to select a primary care physician are more likely to use pay-for-performance.

In California alone, seven health plans awarded \$212 million to physician groups meeting pay-for-performance quality measures in the period between 2003 and 2006. The funds went to the top-performing 20 percent of physician groups, measured by patient satisfaction, clinical quality measures, and use of information technology.

The AMA offers its members a list of questions ("A Physician's Guide to Evaluating Incentive Plans") to consider before voluntarily signing up for a pay-for-performance incentive plan.

Tiered Physicians

Nancy Enos says that some practice administrators use coding to track productivity, employing a relative value unit (RVU) for each CPC code. “Coding plays into analyzing doctors’ productivity and can be a fair way to compensate the doctor in a practice,” says Ms. Enos, an independent consultant who sometimes works with the Medical Group Management Association (MGMA) Health Care Consulting Group.

Payers may use coding to put doctors in “tiers” or levels depending on their analysis of efficiency and quality of care. In New York State during early 2008, some managed care companies started dividing their physicians into “quality” and “nonquality” networks, according to Dr. Russo. The insurance companies set parameters and place physicians in the quality network if they meet certain criteria. Patients who choose a physician in that network pay a lower co-pay. The result? “You’ll be channeling patients

A prime question is whether patient safety is one of the plan’s primary goals. The AMA also asks whether participating in the program would interfere with the physician-patient relationship and whether the program allows the physician to use the best treatment options, even if those options go against established performance measures.

For physicians who participate in these programs, accurate coding takes on an even deeper meaning. Dr. Felger cautions that pay-for-performance is only as good as the data received. “What we’re finding is that many of the noble goals of pay-for-performance aren’t happening because of the claims data,” he says.

Dr. Felger notes that if a physician orders an A1c diabetes test, but it doesn’t show up in the claims data as completed, that’s a check mark against the physician. “If a patient didn’t get lab tests done that you ordered, the system doesn’t show that,” he says. “The physician has to be familiar with the codes, like those for medical noncompliance.”

However, if the patient tells the physician that he’s not going to get the test, the physician can add the medical noncompliance code to indicate that he tried. “That’s not a value judgment but an explanation of what happened,” Dr. Felger says, noting that the more accurately you can code, the better the health plan can see if the diabetes is controlled or uncontrolled and why.

into that physician's practice. If I have to pay a \$40 co-pay to see Dr. Jones, and \$20 for Dr. Smith, I'll go see Dr. Smith," says Dr. Russo. "This has real ramifications for physician reimbursement."

According to the AMA, physicians are put into tiers based on their relative cost of care. Payers analyze claims based on episodes of care and measure the costs of treatment using a software program. This procedure can be problematic on many levels, the AMA points out. For example, in some areas there may be a limited number of "quality" tiered physicians, which may overload those doctors or force patients to choose a higher-cost practice. In other cases, patients may be forced to change physicians based on cost. The AMA Website (www.ama-assn.org) has report cards on a handful of insurers, describing how the insurer implements and uses tiered and narrow networks (narrow networks allow an insured to use only physicians within the network).

Towards More Accurate Coding

"As we move into the era of public reporting, it's scary when you think about how inconsistent the area of coding can be," says Ms. Wilson. "It's a matter of accurate and timely documentation resulting in compliant coding."

Ms. Wilson recommends that physician practice coding staff set up roundtables to discuss coding issues. Working with the hospital coding staff, both the physician practice and the hospital may reduce denials from external auditors. One way is to perform self-audits.

One way to be proactive about one's own hospital ranking is to respond quickly to the documentation specialist's or hospital coder's queries. "There are a lot of reasons that are positive for the doctors as well as for the hospital," says Dr. Huff.

When coders at Erlanger Health System have questions, they contact the appropriate doctor; then, if there's a pattern of the doctor's not responding to these queries, the physician will go before a peer review committee, according to Ms. Bowen. Doctors should use the query process to learn about documentation improvement, reflecting the intensity of services provided.