HEALTHCARE
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Closed Claim Abstract

This claim involved a 39-year-old female whose survivors alleged that her physicians failed to diagnose and treat a cardiac condition resulting in her suffering a fatal myocardial infarction.

The patient scheduled a visit with her primary care physician for complaint of atypical chest pain. She was obese and had a history of hypertension. The primary care physician referred her to a cardiologist who evaluated her two days later. The cardiologist ordered an EKG. The results were abnormal. He then ordered a dual isotope stress test. Another cardiologist interpreted the dual isotope stress test, noting the test was technically inadequate due to patient movement. A repeat study was recommended. The patient was released home with an appointment to return in a week for the repeat test. The night prior to her return cardiology appointment, the patient presented to the hospital emergency department via ambulance in full cardiac arrest. She died within the following two weeks.

The autopsy report revealed evidence of an acute thrombus, which conclusively established that the cause of death was an acute myocardial infarction. There was evidence of micro infarcts or microscopic scarring in the heart, consistent with heart disease, although the heart was "in pretty good shape."

We were unable to find any cardiology support or defense for this case.

Physician reviewers' comments included:

1. The standard of care was not met. The patient did not have a complete work-up in a timely manner.

Continued on page three

Reflections of a Cardiologist:

Errors of Omission in Diagnosing Acute Myocardial Infarction

By Joseph Wilson, Jr., MD

Failure to timely diagnose and treat acute myocardial infarction is one of the most common forms of medical negligence often resulting from a diagnostic "error of omission."

Each year nearly 5 million people in the U.S. visit emergency rooms or their physicians' offices with heart attack symptoms including chest pains. Since heart attack symptoms are similar to a number of common non-life threatening conditions, doctors may fail to realize the severity of the situation and misdiagnose the patient's medical condition. Examples of diagnostic errors of omission with respect to acute Myocardial Infarction (MI) are reflected dramatically in MAG Mutual's Claims database. In terms of frequency, Acute MI ranks #4, after pregnancy-related conditions, breast cancer and the brain-damaged infant cases respectively. In terms of expense, Acute MI cases are well within MAG Mutual's top 10 most drivers of physicians' premiums.

Getting to the heart of the matter.

Coronary heart disease is the No. 1 killer of men **and women** in the United States. By 50 years old, at least half the population will show some signs of atherosclerosis. People obviously live with coronary artery disease, but suffer myocardial infarctions and sudden death as a result of an acute occlusion. Acute occlusion is responsible for subsequent arrhythmias and muscle damage experienced during the myocardial infarction process. The challenge for the clinician is making a correct and timely diagnosis of patients who are in the process of undergoing the potential for acute occlusion.

Current language refers to these events as acute coronary syndrome or ACS. Older language referred to this as unstable angina. The term unstable is accurate in that this process of the atherosclerosis is a dynamic one, where there are periods of increased inflammation and increased plaque accumulation. With this acceleration, changes can occur that lead to the unstable plaque and potential for acute occlusion.

Coronary artery disease is truly a vascular disease. Lipids accumulate within the smooth muscle lining of the coronary arteries facilitated by the endothelium, which is the one cell layer that lines the coronary, separating the blood from the smooth muscle layer. As lipids accumulate within the wall of the artery, an inflammation process occurs which compounds the ongoing reaction. For reasons that are not clearly understood, there seems to be an ebbing flow with this process. At

Continued on page two

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Reflections of a Cardiologist

Continued from page one

times, when there is an acceleration, the plaque itself can rupture with the lipid material being extruded into the lumen. This material is very thrombogenic, causing immediate platelet and thrombin aggregation. These aggregates can embolize downstream, potentially causing warning signs and symptoms that need to be recognized. Many of these episodes may never result in total vessel occlusion, but simply evolve into further chronic atherosclerotic changes. When acute occlusion does occur and blood flow is abruptly interrupted to the myocardium, arrhythmias and myocardial death ensue.

The clinical challenge is to identify patients who may be progressing from a stable coronary situation to an unstable situation with the potential for acute occlusion.

Understanding how this process is clinically manifested in certain individuals and not in others can be a mystery.

We refer to statistical analysis, called risk factors, to help identify patients that should illicit a higher level of concern, regarding the potential for symptomatic problems. These risk factors are well described, but are just risk factors. Risk factors should be analyzed in any patient who is being considered for potential ACS. The likelihood of ACS can be ascertained statistically, but every patient needs to be evaluated individually for the potential of coronary artery disease.

The patient who presents to the outpatient setting with symptoms and risk factors warrants exclusion of acute coronary syndrome. Simply obtaining an EKG and initial enzymes is not enough.

The diagnosis of coronary artery disease in the outpatient setting.

The proper diagnosis of a heart attack can often be difficult due to the non-specific nature of some symptoms. Nevertheless, careful and attentive consideration of **all** factors is critical to the ACS patient's survival and recovery.

Further evaluation by the physician must be considered, particularly when the patient reports chest, neck, arm or mid upper back area symptoms.

Some of the most common mistakes made during the diagnosis of a myocardial infarction include:

- Failure to diagnose a heart attack in a younger patient
- Failure to consider a heart condition in a woman because myocardial infarction is more frequent in men. Patient gender and age are **not** absolutes in ruling out coronary artery disease. Although rare, young men and woman can be diagnosed with this disease. Young age or gender should, **under no circumstances**, be the sole determination of the absence of coronary artery disease.
- Finding a normal EKG. Normal or atypical EKG readings do not always rule out a heart attack. One study showed that up to 23 percent of misdiagnosed myocardial infarctions were due to the improper reading of a patient's EKG.
- Failure to conduct a thorough history and physical examination. The physician must properly assess: patient age, previous heart conditions, medical history and drug interaction, patient lifestyle (exercise, alcohol or drug use), smoking, menopause and family history. For example - oral contraceptives and hormone replacement therapy are known to increase the risk of heart attack
- Assuming that "atypical chest pain" excludes ACS. The term "atypical chest pain" may be misleading and should not be used. Physicians should support the diagnosis for either **ischemic or nonischemic symptoms**. The symptoms should be described **as they relate to the pattern that is seen in coronary artery disease**. In addition, the physician should justify the reason for excluding this as coronary artery disease or being unclear as to whether it could potentially be coronary artery disease.

An EKG and H & P should be considered a routine part of evaluation of chest pain. Frequently, the physical examination, EKG and initial cardiac enzymes, including troponin, will be negative, even in significant ischemic symptoms.

Negative findings and these early objective indicators do not exclude coronary artery disease if the symptoms and risk factors are unable to do so.

Simply obtaining an EKG and initial enzymes is not enough. With the onset of symptoms, the patient's enzymes, such as troponin, can rise in as early as four hours. Unfortunately, not all warning signs lead to troponin and enzyme elevations, so negative enzymes do not totally exclude coronary artery disease that may be unstable at that time.

A sound approach for both the physician and the undiagnosed patient is to establish a program of exercise testing, serial enzymes, obtained for the six hours after presentation, and observation. Even with this evaluation, the diagnosis of unstable coronary artery disease may be missed. If discharged, the patient should **always** be advised to return for further evaluation should the symptoms recur or continue.

Conclusion: The patient who presents to the outpatient setting with symptoms and risk factors warrants exclusion of ACS. Errors of omission, such as failure to timely diagnose coronary artery disease in a patient/physician encounter, are one of the clinical challenges of any physician seeing patients in an outpatient setting. Having a high index of suspicion for any symptoms the patient may report, following through with clinical evaluation, and documenting that evaluation, is the best way to avoid the possibility of missing an opportunity to diagnose a potentially life-threatening condition.

The future of coronary artery disease diagnosis is bright.

New cardiac scanning techniques, although just being developed for clinical use, may offer significant improvements in our ability to diagnose early unstable coronary artery disease. At the present time, however, the approach outlined in this article is the safest for the patient and the physician who is attempting to provide the best care possible.

Risk Management Suggestions:

- Conduct a thorough history & physical, considering & documenting all risk factors
- Document all patient complaints relative to pain/pressure and location
- Perform an EKG immediately upon symptomatic presentation and document all EKG readings.

Compare the results of the present study to any previous studies performed

- Document all recommendations and your rationale for subsequent diagnostic tests and follow-up
- Do not automatically rule out MI because the patient is young or is a woman
- Promptly record and communicate any positive findings or concerns from diagnostic testing to the patient and other physicians involved
- Do not abandon diagnostic pursuit because you are unimpressed by the test results
- Establish a program of exercise testing, obtain serial enzymes for six hours after presentation, and observe the patient
- If discharged, the patient should **always** be advised to return for further evaluation should the symptoms recur or continue
- A patient presenting with symptoms suggestive of ACS/MI should be evaluated, referred and/or admitted until a cardiac diagnosis has been ruled out

Closed Claim Abstract

Continued from page one

2. An EKG should have been ordered sooner and consideration should have been given to admitting the patient to the hospital sooner.
3. The cardiologists should have ensured that the stress test was repeated sooner.
4. The cardiology office did not have follow-up systems in place or a communication system to ensure that the two cardiologists communicated with one another.

As you will recall, in a previous edition of the Risk Manager newsletter, MAG Mutual discussed the release of medical information and the HIPAA Privacy Rule. That article directed you to MAG Mutual's web site to find a sample Authorization Form that met the requirements of the HIPAA Privacy Rule. That authorization form is now available at **www.magmutual.com/risk**.

Workers' Compensation in the Medical Office

By Reid A. Pearlman, J.D., Risk Management Consultant

Workers' Compensation in a medical office is unique. The distinct work setting and risks involved pose real-time program management challenges.

So, What causes claims? Over half of all MAG Mutual's reported injuries result from sprain/strain incidents. These accidents are expensive; they alone account for 81 cents of every dollar spent in claim costs. The back is injured more often than any other body part. These injuries are expensive. In fact, they eat up fully 1/3 of total costs, while representing just 10 percent of claims. Cut/puncture injuries are a close second. Unlike back incidents, they occur fairly frequently, but are not usually costly. Inadequate training and workflow/ pacing issues, poor lifting technique and/or a failure to get assistance, improper equipment use and plain carelessness, all contribute to these work place accidents and injuries.

Visible employer commitment is key to developing a culture of safety for the practice.

Practical Suggestions

- Every practice should have a formal, written accident/injury policy. The policy should provide for the immediate treatment of every injured employee
- Second, barring an absolute emergency, no employee should be treated in or by the practice. To do so inevitably traps the practice in a no-win conflict of interest as both provider and employer
- Third, require prompt reporting of every incident (within 24 hours, if possible), so the practice can easily investigate and confirm the validity of each claim. This is crucial because late reporting casts great suspicion on a claim's legitimacy
- Fourth, promptly and thoroughly investigate every claim. Claim fraud is serious business; it consumes 8 cents of every premium dollar. Besides delayed reporting, a number of red flags can point to a bogus claim. Obtain witness statements; determine how the injury occurred and how it is logically related to the workplace

Light Duty Programs. Once a claim has been deemed legitimate, attention shifts to cost containment. Careful, proactive management will quickly heal injured workers and get them back to work. An effective "light-duty" program is key to this effort; it not only speeds employee rehabilitation, it may also reduce malingering.

Thinking of discharging or otherwise discriminating against employees for seeking benefits? Think again. "Employer Retaliation" is legally prohibited. A reasonable, consistently applied absence control policy can help practices avoid this charge. Document employee problems, like discipline and attendance, because those who suspect termination or discipline are more likely to file claims. Also, practice managers must learn not to respond negatively to an employee's intentions to file a claim. If a claim is suspicious, it should simply be investigated, not presumed to be fraudulent.

Workers' Compensation coverage is, like death and taxes, unavoidable. Regardless, enlightened practices understand that an effective program can be a potent tool to boost employee morale and improve safety. Conversely, a poorly run program may dishearten employees by breeding hostility and suspicion.

For further information on Workers' Compensation coverage, contact Chip Goen at ***(404) 842-5584*** *or visit us online* ***www.magmutual.com***.

MAG Mutual does not presume to establish any standard of care or establish rules for the practice of medicine. The particular patient-care strategies or range of patient-care strategies mentioned in this newsletter should be tempered by the physician's judgment. This publication is produced to inform you of issues relating to medical professional liability insurance and other matters of importance to physicians. Material given in this newsletter does not constitute legal advice or opinion. If you have questions in any of the areas discussed in this publication, you should seek a qualified legal opinion. ©2005 MAG Mutual Insurance Company

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