Did Provider Fatigue Contribute to This Patient's Death?

In 2010, The Doctors Company began capturing data on human factors that contribute to patient injury in malpractice claims. Of the 14,135 claims we have coded since then, 13 percent included at least one human factor that influenced the outcome of care. Of the human factor claims, 9 percent dealt with conditions affecting the provider (such as distractions, multitasking, interruptions, fatigue, or physical or mental impairment). Here is a case example that illustrates how human factors can affect patient care.

On December 25 at 2:04 AM, a 40-year-old male presented to the emergency department with a chief complaint of chest achiness, sore throat, and congestion. The patient stated that "something just hit me all of a sudden."

He denied having fever, chills, cough, nausea, or vomiting. The triage nurse noted the patient reeked of alcohol. His temperature was 101.4, pulse 131, respirations 22, blood pressure 135/78, and oxygen saturation 95 percent. The patient said he was a smoker, used alcohol and street drugs, and was on a six-month regimen of medications for exposure to tuberculosis. The triage nurse's assessment was that the patient was in no distress. The emergency room was understaffed and extremely busy that night. The patient was to remain in the waiting room until the next examination room became available.

At 5:20 AM, the patient was noted to be lying on chairs in the waiting room with his eyes closed. He was easily roused and told the triage nurse that he was still sick. The triage nurse checked on the patient again at 6:15 AM and noted he was still lying on chairs with his eyes closed. Respirations were noted to be deep and even.

At 7:50 AM, the patient was escorted to the examination room. He now complained of cough, sneezing, body aches, and nasal congestion. The patient was noted to be afebrile (although no vital signs were recorded). On exam by the nurse, his respirations were easy but with decreased breath sounds on the right to auscultation. The nurse noted the patient was advised to quit smoking.

The patient was seen by a physician assistant (PA), who was working additional hours due to understaffing and had complained of fatigue earlier in the shift. The PA noted the patient's vital signs from arrival at 2:04 AM (no other vital signs were ordered or documented during this emergency visit) and history of cough (noted as nonproductive), runny nose, and congestion. The physical exam was noted as normal. The medical history was noted as negative. The PA's clinical impression was influenza and upper respiratory infection. The entire exam lasted less than 10 minutes. The patient was discharged home with instructions to rest, increase fluids, stop smoking, and follow up with his primary care physician in three to five days as needed. This note was countersigned by the emergency department physician (who did not see or examine the patient).

The patient did not follow up with his primary care doctor. Less than 48 hours later, he collapsed at home. Emergency medical services found the patient to be asystolic and apneic and responded with defibrillation and cardiopulmonary resuscitation. The patient was transported to the emergency department, where he was pronounced dead on arrival. An autopsy determined the cause of death to be bacterial pneumonia.

The claimant alleged that failure to diagnose and treat bacterial pneumonia led directly to the patient's death.

Plaintiff's Case
The plaintiff's experts testified that, with a temperature of 101.4, pulse rate of 131, and oxygen saturation of 95 percent, a chest x-ray and complete blood count (CBC) were indicated and should have been obtained. The experts opined that a chest x-ray would have shown early stages of pneumonia, and the correct diagnosis would have been made. The CBC would have shown an elevated white blood cell count, indicating a more severe infection.

The experts pointed out that it was below the standard of care to take only one set of vital signs on this patient, since the first set was so clearly outside the normal range. The experts also noted that, given the patient's abnormal vital signs and the other symptoms, the hospital should have had policies in place requiring a physician to examine the patient before discharge.

The experts noted that the physical exam and medical history done by the PA were inadequate and did not meet the standard of care. The physician was faulted for not noticing the abnormal vital signs and minimal history on the PA's note and for signing off on this patient without examining him before discharge.

Defense's Case
Several defense experts were nonsupportive of the emergency department physician and the hospital, citing the same concerns noted by the plaintiff's experts. They also noted that the patient's exposure to tuberculosis with medication treatment should have been investigated and that the long wait in the emergency department and the extremely brief examination by the PA were problematic and hard to defend.

However, the defense found one supportive expert who said that the vital signs, while clearly abnormal, could be consistent with influenza. The expert noted that the PA documented the physical exam as within normal limits; if crackles or consolidation (indicative of possible pneumonia) had been present on auscultation, the PA would have noted it. The patient also had a nonproductive cough, as noted by the PA. The expert opined that a chest x-ray and CBC were not needed and that a diagnosis of influenza was reasonable. The expert went on to state that the patient likely presented with influenza and subsequently developed an acute onset of bacterial pneumonia.

Summary
The presentation of the patient during the nightshift of a major holiday, severe understaffing of the emergency department, and the fatigue of the PA (who admitted to being extremely tired and in a hurry to finish the shift) all contributed to a rushed and cursory examination of the patient.

Multiple factors in this case were difficult to defend: failure to order a chest x-ray and a CBC, failure to obtain additional vital signs or to consider the patient's complete medical history (including recent treatment for exposure to tuberculosis), and his long wait for an examination lasting less than 10 minutes.

Patient Safety and Risk Management Recommendations
- Promote a patient safety culture in which the recognition and prevention of fatigue are addressed in the interest of patient safety.
- Develop a teamwork environment in which team members practice situation monitoring of their own ability to function effectively and monitor other team members for signs of fatigue or stress.

- Cultivate a teamwork environment of mutual support in which team members feel free to express concerns to each other if they identify signs of fatigue or stress in their colleagues.
  Monitor staff schedules, and curtail hours as needed to prevent undue fatigue.
  Call in additional physicians and staff to combat the problems of fatigue and stress.
  Ensure adequate staffing levels on holidays and nightshifts—in the emergency department and throughout the hospital.
  Maintain contingency plans to manage a large influx of patients in the emergency department that include the following elements:
  - Maximum wait times.
  - Monitoring patients in the waiting area.
  - Guidelines for staff on calling for assistance.

  Create policies and procedures to ensure that patients are seen in the emergency department in a timely manner.
  Recheck all patient vital signs prior to discharge, and notify the physician of any abnormal vital signs. Document the actions taken.

Provider fatigue and the rush to get things done when staffing levels are inadequate can lead to mistakes and poor outcomes for patients. We encourage you to take steps to eliminate these risks to patient safety.

Additional Resources

1. O'Reilly K. Hospitals alerted to fatigue's dangers. *American Medical News*, January 9, 2012. www.ama-assn.org/amednews/2012/01/09/prsa0109.htm.

2. The Joint Commission. Health worker fatigue and patient safety. Sentinel Event Alert Issue 48. www.jointcommission.org/sea_issue_48. Published December 14, 2011.

3. Improving Patient and Worker Safety: Opportunities for Synergy, Collaboration and Innovation. The Joint Commission website. www.jointcommission.org/improving_patient_worker_safety/. Published November 19, 2012.

4. Fatigue and patient safety. Committee Opinion No. 519. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2012;119:683-5. www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Patient-Safety-and-Quality-Improvement/Fatigue-and-Patient-Safety.

By Julie Brightwell, JD, RN, Director, Healthcare System Patient Safety, The Doctors Company