

## Quality Improvement: Practicing Medicine/Exceeding Authority

### **Scenario**

A 60-year-old male came to the ED with complaints of a sore throat, runny nose, and a productive cough. An initial assessment revealed a blood pressure of 136/84, heart rate of 83, respiratory rate of 26, and a temperature of 99.2 F. Crackles could be auscultated bilaterally in the upper lung field. Due to the business of the ED at the time, an accurate patient history was not taken. The patient received several tests, including a blood culture, nasal swab, and chest X-ray. The results of the tests indicate an upper respiratory infection. After the results came back, the patient called the nurse, stating he was feeling worse and had a headache. The nurse hurriedly reassessed the patient and found that the patient was diaphoretic, had a headache of 6 on the pain scale, and a temperature of 102.5 F. Not finding any orders on the patient's chart, the nurse attempted to call the doctor but received no answer. Unable to contact the doctor and wanting to get the patient's pain and fever under control, the nurse hung a bottle of Ofirmev, thinking that acetaminophen is an over-the-counter drug and would be fine. The next day the patient becomes jaundiced, has abdominal pain, and pruritus. An accurate history was then taken of the patient, who stated that he regularly drank alcohol and had taken Tylenol for his fever before coming to the ED. Liver function tests were done and the patient was diagnosed with toxic hepatitis.

### **How Did Patient Care or Environment Lack?**

The patient entered a busy ED with relatively stable vitals. He received basic care and testing, but little else was done, including an accurate history. The nurse should have taken an accurate history to help guide the treatment of the patient. Later, when his symptoms worsened, the ED was still busy, so the nurse was unable to contact the doctor. Therefore, the nurse decided to administer unprescribed acetaminophen, which is practicing medicine and outside an RN's authority. The patient, already having a damaged liver from alcohol and previous acetaminophen, developed toxic hepatitis. Patients with liver problems should avoid hepatotoxic drugs, such as acetaminophen. Acetaminophen intake should also not be greater than 4 grams a day for healthy patients.

### **Circumstances Leading to Scenario**

Not taking an accurate history, poor staff availability, and the nurse acting outside her scope of practice.

### **In What Ways Could the Frequency of Occurrence be Measured?**

There are several things that could be measured in this scenario. One is how often an accurate history is taken. Although this may be somewhat subjective, reviewing charts could provide some insight into how well the staff is taking histories. Chart reviews could also reveal how often nurses administer unprescribed medications, or contrary to protocol, and which nurses have a greater tendency to do so. A series of interviews as to why an accurate health history may or may not be taken could help identify barriers to be fixed. A hospital-wide analysis on the frequency of acetaminophen or other hepatotoxic drugs given to patients with liver problems, or any instances of a patient receiving more than 4 grams of acetaminophen, could be done to make sure safe medication administration is being followed.

### **Interventions to be Implemented**

In this scenario, the best initial intervention would be education. If nurses and other staff are presented with current information, the topics discussed will mean more to them and they will have greater motivation to implement safe practice. The nurses may even have other suggestions to help improve practice and patient outcomes. Areas for education include medication administration, scope of practice, and hepatotoxicity. Although it may or may not have helped in this scenario, recording liver enzymes in the chart (when available) before administering hepatotoxic drugs could also be implemented. Posters can also be put on the floors reminding nurses of the medication prescription and administration process.

### **Measuring the Efficacy of Interventions**

Chart reviews of how often nurses administered unprescribed medication, how detailed are the patient histories, and how many occurrences of hepatotoxic drugs are given to patients with liver problems should be done at certain months. These results should then be compared to previous data, hoping for a downward trend in occurrences.