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## OHCQ Review of Two Root Cause Analyses: Are You Looking as Hard as You Might?

Identification of a Level 1 adverse event and reporting it, both internally to the hospital staff and to the Office of Health Care Quality (OHCQ), is only the beginning of an effective patient safety program. What is critical is the ability of the hospital to fully evaluate an event, find its root cause, identify any systems failures, and put mechanisms in place to prevent a reoccurrence.

Occasionally however, the investigative phase of an adverse event illustrates the failure of a hospital to look beyond the immediate and apparent breakdown to find real inadequacies of systems that should be protecting patients. We find two areas where decisions must be made especially quickly and where systems' failures to avoid human errors can have a devastating impact on patients. This is the Emergency Room and the Operating Room. Two recent Root Cause Analyses (RCA) received by OHCQ illustrate this point.

### Emergency Room Case

A 40-year old patient presented to the emergency room complaining of sore throat, cough, weakness and nasal congestion. After treatment, lasting 10 hours, the patient was discharged, only to return to the emergency room 5 hours later in acute respiratory distress. The patient developed respiratory failure, hypoxia, and septic shock. After a second 9-hour stay in the emergency room, the patient was transferred to the intensive care unit and died the next day.

During the first emergency room visit, the patient received 5 liters of fluid and 2 doses of insulin. In the RCA the patient is described as dehydrated, tachycardiac, and

hyperglycemic with a blood sugar of 275. The white blood cell count was normal but the differential indicated possible sepsis. No blood or urine cultures were obtained on the first visit.

The RCA, under "human factors" stated, quite simply, that the physician who sent the patient home after the first emergency room visit made a poor judgment call. There were no other factors identified that could have been responsible for, or even contributed to, this unfortunate outcome. The RCA noted that the physician was well trained with no previously described poor outcomes. The identified root cause was "misinterpretation of information." Corrective action was to be measured by "The physician will not develop a trend of clinical misinterpretation."

Comment; Wachter and Shojanian in their book **Internal Bleeding**<sup>1</sup> write that the "RCA attempts to write a 'second story' about the actions that led to error -- to look past the obvious, sharp end scapegoats and find the other culprits, however deeply they may be embedded in the system or lost in the labyrinth of procedures and traditions." The RCA described above does not do this. Rather it found only an experienced and well trained physician who misjudged the degree of illness in a patient who was under his/her care for 10 hours in an emergency room. The physician appears to have worked entirely alone. There was apparently no supporting staff to advise the physician nor was there any concurrent quality oversight system in place to back up the physician.

Can we expect that education and counseling of this physician and watching him/her for further mistakes will correct the

*Continued*

problems in this emergency room? Are there steps that the hospital could take to make other members of the team in the emergency room more involved in assisting in the management of this patient? Could policies be written that ensure that under certain circumstances, such as when patients receive certain kinds of treatment, or when patients spend certain periods of time in the emergency room pending a decision, another physician be asked to provide another opinion. Was the emergency room physician simply too busy to closely follow his/her patient? What outcome measurements might be used to determine whether complicated patients are being adequately managed prior to discharge?

### **Operating Room Case**

Case No. 2 involved a patient who was status-post a motor vehicle accident and who was taken to the operating room for a tracheostomy. While in the operating room, there was a small fire associated with the use of electrocautery in the presence of oxygen. It turned out that there was an unwritten practice in the

hospital for the surgeon to indicate to the anesthesiologist, either verbally or non-verbally, when he or she was about to use the cautery so the percentage of oxygen being delivered to the patient could be decreased. In this event, a fellow, who was operating with the surgeon, was unaware of the unwritten practice and so did not indicate to the anesthesiologist that he was about to use the cautery.

The RCA focused on the lack of communication between the fellow and the anesthesiologist, and the education and information needs of non-attending physicians. As one of its action items, the RCA proposed an initiative to educate patients on steps they can take to avoid operating room fires.

Rather than focus on codifying and improving unwritten practice standards, this hospital chose to blame the fellow for failure to adhere to an unwritten practice that the fellow had no knowledge of. The RCA also seeks to spread the blame to a class of people who

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are least at fault in operating room fires -- patients!

If you have comments on how you would handle these two cases, please email Joseph Berman, MD at [jberman@dhmh.state.md.us](mailto:jberman@dhmh.state.md.us). We will post comments (please tell us if you want your name released) on our OHCQ website so that we all might share experiences and solution. We are all trying to learn together.

<sup>1</sup>Wachter, M. and Shojania, K.  
*Internal Bleeding.*  
Rugged Land, NY, 2004, p 46.

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