

Virtual Mentor

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CLINICAL CASE

Physician's Accountability for System Failure

Commentary by David Lovinger, MD

Mrs. Taylor went to see her internist because she had been suffering from shortness of breath during her usual exercise routine for several months. Otherwise, she was in excellent health. When her symptoms did not improve after several weeks, her internist ordered a chest X-ray that revealed an opacity in the right lower lobe of her lung. A follow-up CT scan showed an effusion, so her internist referred her to Dr. Jones, a pulmonologist, for a thoracentesis and further workup.

When Dr. Jones walked into the exam room, Mrs. Taylor seemed nervous. "Doctor, I had terrible complications with an epidural when giving birth to my second child, and ever since then I've been terrified of needles and medical procedures," she stated. "Is there any way I can be put under for this?" After speaking with Mrs. Taylor at length Dr. Jones convinced her to proceed with the thoracentesis using local anesthesia, which is standard of care practice. The tap went smoothly despite Mrs. Taylor's anxiety and complaints of pain, and Dr. Jones drained 750 milliliters of fluid from his patient's chest. Dr. Jones sent four vials of the fluid for laboratory analysis. As she left the clinic, Mrs. Taylor exclaimed, "Thank heavens that's behind me!"

After two weeks, Dr. Jones had not received the report from the lab. Normally, results were faxed to his office within 7-10 days. When Dr. Jones called the lab to inquire about the status of the tests, an employee reported that they had never received the samples.

Dr. Jones checked Mrs. Taylor's chart and found no lab order sheet. When he spoke to his nurse about the lab order, she confirmed that she had prepared the paperwork and sample to be sent for testing. Dr. Jones also spoke to Greg, the clinic staff member responsible for sending lab specimens to the lab and learned that he had not been in the office the day of Mrs. Taylor's thoracentesis; his substitute was a staff floater who was filling in for the day.

Mrs. Taylor was scheduled to return to the clinic the next day for her results. Dr. Jones faced the task of telling her about the lost sample and the remaining diagnostic options. He also wondered how he could prevent a recurrence.

Commentary

This is a difficult and all-too-common scenario in clinical medicine: an error occurs that exposes a patient to harm, it is not obvious who is at fault, and there is no clear

guidance about how to address the error. Though Mrs. Taylor was not harmed by the first procedure, she will need to have the thoracentesis repeated if the fluid re-accumulates. If the fluid does not re-accumulate, she may need to have a more invasive diagnostic procedure such as a needle biopsy or even an open biopsy procedure such as a thoracoscopy. Then there is the matter of Mrs. Taylor's anxiety at having to face a feared procedure a second time and the psychological distress inherent in the situation because cancer is the suspected diagnosis. The difficulty here is compounded by the fact that it is not clear who bears the ultimate responsibility for the mistake of the lost sample. This scenario also generates a number of vexing questions about how to proceed with this patient, both ethically and clinically; how to prevent this or a similar situation from happening again; and how to improve the administrative process so that these occurrences are less likely.

At the center of the case is the concept of "systems failure" and how it relates to personal responsibility and individual accountability. The idea that systems—as opposed to individuals—can be responsible for errors is a modern construction that has roots in aviation and the military. The clarion call for medicine to reduce errors and improve patient safety was the 2001 Institute of Medicine (IOM) report, *Crossing the Quality Chasm: A New Health System for the 21st Century* [1]. In this document, the Committee on Quality Health Care in America called for systematic and system-wide changes to address substantial deficits in patient safety and health care quality. Though some have argued that a focus on systems ignores individual responsibility [2], this either/or approach misses the point. A systems approach to analyzing an event like the one in the case of Dr. Jones and Mrs. Taylor looks at ways that the workflow in the clinic (i.e., "the system") could be configured to eliminate certain types of errors. In his book *Complications*, Dr. Atul Gawande describes how the field of anesthesiology used a systems approach to reduce anesthesia deaths from roughly 1 in 10,000 to 1 in 1,000,000, a hundredfold reduction [3].

Another prominent theme in this case is the disclosure of error. Though medical ethicists and professional societies have stressed physicians' ethical obligation to tell patients about unexpected events that have implications for future care [4] many practitioners (and risk managers) have long feared the consequences that admissions of responsibility and apologies could bring. A policy enacted by the Veterans Affairs Medical Center in Lexington, Virginia, in 1987 that requires complete and honest disclosure seems, however, to have resulted in no financial penalty [5]. Other organizations have had similarly encouraging results, yet such disclosure policies are still more the exception than the norm [6].

Given all this, telling Mrs. Taylor of the lost sample is not only warranted, but prudent. But how should Dr. Jones go about sharing this information with Mrs. Taylor, and is there any guidance available for practitioners, most of whom have no experience with this practice? In 2003, the National Quality Forum published "Safe Practices for Better Healthcare" [7], which outlines standards for disclosure of unanticipated outcomes with patients. These recommendations include providing

facts about the event, disclosing the error or system failure, expressing regret, and offering a formal apology if the outcome was caused by error or system failure.

That medical errors constitute an epidemic is an oft-stated truism that belies the complexity of the issue. Relying on studies in the literature, the 1999 landmark study, *To Err is Human: Building a Safer Health System*, concluded that at least 44,000 and perhaps as many as 98,000 lives were lost each year from preventable medical errors [8]. This startling number was not accepted without dispute [9], and the issue of preventability was debated [10], but the original research was compelling [11]. The report has gained wide currency throughout the health care system and its recommendations have led to a variety of efforts to improve patient safety. Further, this report helped spur health care organizations to implement computerized physician order entry (CPOE) systems, which have been shown to reduce medication errors and adverse drug events substantially [13].

Returning to our case, the patient, Mrs. Taylor, was exposed to the risks inherent in a thoracentesis without any diagnostic benefit because the sample that was collected was lost. Though the benefits of the procedure are believed to greatly outweigh the risks, a thoracentesis can cause bleeding or infection at the test site and possibly a collapsed lung, which could require a more invasive procedure, like the insertion of a chest tube, and could even be fatal. Though Mrs. Taylor's anxiety about having the procedure does not factor into whether or not there was an error, nor where the responsibility for that error lies, it will heighten her distress at this unanticipated outcome.

Dr. Jones has several obligations if he is to address Mrs. Taylor's concerns. The first is to discover what happened and why. The case is silent on what exactly could have happened, but it does seem to suggest that responsibility for the error lies with the staff floater. In fact, the problem is more likely to be found in the failure of the clinic's workflow procedure to effectively track the movement of specimens. That the clinic has to rely on temporary staff who are not familiar with standard policies and procedures obligates those who work there to create a safer and more reliable system.

Dr. Jones's second obligation is to discuss the events with Mrs. Taylor honestly and frankly, inform her of what he will do to prevent this error from happening again, and apologize for the distress he and the office have caused. Finally, Dr. Jones should help Mrs. Taylor with the financial and insurance consequences of the initial procedure, which, while clinically warranted, was not properly carried out. Mrs. Taylor should not be held responsible for the costs of the procedure. As the IOM suggests, to err is indeed human, but ultimately those who work within health care systems have an obligation to effect changes that minimize error rates and place the systems on a more secure foundation.

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