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CLINICAL CASE

After the Apology—Coping and Recovery After Errors

Commentary by Andrew A. White, MD, and Thomas H. Gallagher, MD

It's nearly the end of his internship year in internal medicine and Jason, who intends to become a rheumatologist, is feeling more and more confident about his abilities as a physician. Just before he signs out after a night on call, he gets a page from the floor nurse about one of his patients, Maude, a 70-year-old woman recovering from pneumonia. She has a headache. Jason goes in to see her and asks her a few questions. "I'm doing okay, doctor," she tells him. "Just the usual body aches of old age, and now this headache. I can't wait to get home to my husband, my grandkids, and my television set. When do you think I'll get out of here?" Jason examines her and, convinced this is a typical tension headache, he reassures her that she'll be home soon, writes an order for ibuprofen, and heads out.

When he returns a day later for rounds, he learns that Maude has lost vision in both eyes. The night-float resident, Miguel, has started her on glucocorticoid therapy for temporal arteritis but fears this treatment is too late to save her vision. Miguel tells Jason, "When you have an elderly lady with a headache and body pains, you always think temporal arteritis, you do the definitive diagnostic test—temporal artery biopsy—and you start her on steroids. Next time, man. Next time." Jason goes to see Maude and her family. They are devastated by the news that she may not be able to see again.

Jason feels tremendous guilt and remorse about missing the diagnosis, and his confidence is shaken. The teaching physician, Dr. Joynt, notices that Jason isn't as sharp as usual. He seems distraught on rounds for several days in a row, so Dr. Joynt asks him if he's okay. Jason wants to confide in Dr. Joynt, a rheumatologist who has become a mentor to him, but he worries that he will look stupid in front of the man who might write his letter of recommendation for fellowship.

Commentary

Jason's dilemma will resonate with anyone who has known or suspected that he or she made a harmful error. Jason's experience is not unusual. Errors are common in health care, and many result in patient injury or death [1]. Trainees, in particular, report that experience with medical errors often begins early in training [2-4]. In one survey, 79 percent of fourth-year students and 98 percent of senior residents had been personally involved in a medical error [5].

The Emotional Effects of Errors

Errors may beget significant ethical, emotional, and professional challenges for trainees [6, 7]. This scenario illustrates the powerful emotions many physicians feel after making a mistake, as well as challenges specific to trainees, such as the impact of the error on the relationship with a supervisor.

Following involvement in an error, health care workers at all levels of training commonly experience a complex range of feelings including guilt, self-doubt, embarrassment, disappointment, self-blame, a sense of inadequacy, and fear [8, 9]. Surveys have also found that involvement in a harmful error can lead to difficulty sleeping, reduced job satisfaction, and anxiety about future errors [10]. These emotions may persist for months or years and contribute to the already substantial stress of medical training by triggering burnout and depression [11].

Prospective studies of residents have found evidence of a vicious cycle in which errors lead to burnout and depression, which in turn provoke increased involvement in errors [11-13]. This phenomenon could compromise both the safety of patients and the mental health of residents. In an effort to break this cycle, some health care systems have begun to create programs to support health care workers after errors [14, 15].

Such programs are the exception rather than the rule, however, and it is not known whether they are effective. Recent surveys of attending physicians throughout the United States and Canada indicate widespread deficiencies in the support they received from hospitals after errors [10]. The lack of support at many institutions is compounded by physicians' reluctance to meet with counselors, in part due to the difficulty of taking time to meet with them, the belief that the available support will not help, and fear that the discussion will not be kept appropriately confidential. Consequently, many health care workers suffer and cope alone [16].

Although coping styles vary, there is an emotional recovery trajectory common among those involved in harmful errors [17]. Following an initial period of confusion and inner turmoil, clinicians often experience intrusive thoughts as they replay and reevaluate the event in their minds. Subsequently, many health care workers talk about the event with a trusted confidant, seeking reaffirmation of their integrity and competence [6, 8, 9, 17]. Talking about the mistake is central to recovery, and many residents discuss mistakes with fellow residents [11, 18]. However, some trainees do not know where to turn for support [19, 20].

The culture of medicine has traditionally fostered mistaken ideals of infallibility and perfectionism, making some training environments hostile to the open discussion of errors [21]. In blame-oriented environments, trainees may adopt counterproductive coping mechanisms such as denial, distancing, and discounting the impact of the error [22]. These approaches may dampen distress, but they also threaten the individual's capacity to learn from the event. In this case, Jason's peer responds in a

nonjudgmental way, but misses a key opportunity to acknowledge and talk about Jason's emotional state.

Clinicians should be aware that discussing the details of an error with a colleague could make that person a potential witness in a malpractice case, unless the conversation takes place as part of a protected quality improvement (QI) program. This remote risk has led to overly conservative advice from lawyers discouraging discussion of errors. The solution is not for clinicians to avoid the topic but for institutions to link emotional support to protected QI activities. Clinicians should be able to trust that conversations with peers about their emotions are not admissible as evidence in the event of a lawsuit.

Although some health care workers remain persistently traumatized by an error, most ultimately move on to restored well-being after a period of recovery [17]. In addition to talking about the error with a supportive colleague, accepting responsibility appears to promote healing. Residents who acknowledge responsibility for an error often have a period of heightened distress but express an enhanced ability to learn from the mistake and to make constructive practice changes [4, 18]. Accepting responsibility may occur through reflection or conversation with peers or supervisors and ideally yields a deeper understanding of the systems issues and the individual cognitive or procedural mistakes that led to the error.

Physicians who neglect these opportunities for professional growth may instead adopt an unnecessarily cautious approach to future patients, resulting in either underuse of appropriate care for fear of adverse events or wasteful and defensive overuse of tests and treatments [23]. We recommend that trainees involved in errors remain attentive to basic self-care. This includes maintaining an exercise regimen, avoiding alcohol and drugs, and even considering taking time off from clinical work in deeply upsetting cases.

The Fallout for Patients

For many physicians, disclosing the error and apologizing to the patient helps alleviate guilt and distress [24], but disclosure of harmful errors is recommended regardless of the perceived benefit to the physician [25]—the purpose of apologizing is to meet the emotional needs of the patient, not to unburden the physician [24]. Although this case does not describe the details of the conversation between Jason and Maude, we learn that she and her family are devastated and can imagine the significant discomfort and uncertainty Jason must have faced before talking to them. He might have wondered, "Will she blame or even sue me? How should I prepare for the conversation? How should I describe my role in the error?"

Unfortunately, few trainees have been taught how to disclose errors, and most do not have experience disclosing an error that has resulted in permanent harm, such as this one [5]. Furthermore, trainees may struggle to take the actions patients desire, such as clearly explaining what caused the error, apologizing, or describing how similar errors will be prevented in the future [26]. These difficulties emphasize the

importance of residents' discussing errors promptly with their supervising attending physician before approaching the patient. In this case, Dr. Joynt could lead Jason through a potentially difficult conversation with Maude. He could also catalyze the process of rebuilding Maude's trust in Jason. This is particularly relevant for trainees, because some patients may already be wary of them due to their limited experience.

Impact on the Attending Physician-Trainee Relationship

Like Jason, many residents are uncertain about how to approach their supervising physician after an error. Evidence suggests that residents often choose not to disclose their mistakes to the attending physician [11, 18]. They may fear being blamed or belittled for their errors, want to avoid disciplinary action, and worry that supervisors might evaluate them poorly [4]. In this case, Jason feels dependent on Dr. Joynt's support for his career goals. Among a sample of primary care preceptors, nearly half acknowledged that a trainee's error would negatively influence their written evaluation of the trainee [27]. However, preceptors were more likely to respond positively to trainees who reacted without defensiveness and offered to apologize to the patient, suggesting an approach for Jason to take with Dr. Joynt.

We encourage Jason to discuss this error with his attending physician for other key reasons. First, attending physicians can be an important source of emotional support for trainees. Dr. Joynt could normalize Jason's fallibility and his emotional response by sharing an experience with a related error [19]. Dr. Joynt should also remain vigilant for signs of burnout and depression among his colleagues, including Jason. Second, many academic institutions have policies that require trainees to promptly discuss errors with the attending physician who bears final authority for the patient's care. The attending physician is often best suited to address the resulting treatment needs and report the error to institutional quality improvement leaders for system change.

Finally, trainees are particularly likely to be unable to discern between preventable and unpreventable adverse outcomes due to their lack of experience. This could lead to disclosure of incorrect information about the event, engendering preventable confusion and mistrust after an already upsetting adverse outcome. Supervising physicians can apply their extensive clinical experience to let trainees know whether they have erred and to offer insight into the nature of the error.

Looking at Causes: Missed Diagnoses

Regarding the cause of this misdiagnosis, Jason probably misjudged the serious nature of Maude's headache for several reasons. First, his lack of experience played a role in his failure to recognize the constellation of symptoms that suggests temporal arteritis. However, many experienced physicians could have missed this disease due to framing bias that allows misleading clues to unduly influence the diagnosis. Jason may have framed the situation as a search for a benign problem because Maude reassured him that she was "OK." Jason's pretest considerations were most likely swayed by knowing that temporal arteritis is an uncommon inpatient diagnosis but

tension headache is relatively common. Further, temporal arteritis is unrelated to Maude's admitting diagnosis of pneumonia, meaning he would have had to invoke a second, unexpected disease rather than adhere to a unifying diagnosis.

The definitive test for temporal arteritis is invasive and generally not available after hours, making it impossible to rule out that cause readily. Finally, one wonders if Jason felt pressure to wrap up his work quickly at the end of the day, either due to duty-hour concerns or a desire for personal time. Jason may have faced an ethical dilemma that forced him to balance respecting duty-hour regulations and their attendant patient safety benefits against Maude's need for a thorough evaluation. In combination, these biases and barriers led to premature diagnostic closure, curtailing sufficient consideration of more serious etiologies for Maude's headache.

Although missed diagnoses represent an important cause of harm to patients, they receive less attention than other causes of patient harm [28, 29]. This is partially because they are underreported, there is insufficient scientific understanding of them, and effective tools have not been created to analyze and address the cognitive errors that lead to misdiagnosis [30]. Nevertheless, there are some steps that institutions and individual physicians can take to prevent diagnostic errors. Health care organizations should prevent excessive workloads, guard against inadequate orientation or supervision, and address latent systems flaws that disrupt the integrity and flow of information [31]. Additionally, institutions should foster a culture in which well-intentioned clinicians are not penalized for errors that result from faulty systems or justified risk. (In Jason's scenario, direct supervision of his exam and decision making would be unusual. Furthermore, there is no evidence he intentionally took unjustified risk in not calling for help.) Feedback about his reasoning and more deliberate avoidance of bias could help him to avoid cognitive pitfalls and overconfidence in the future [32]. Training programs should promote greater understanding of cognitive traps such as framing bias and techniques such as metacognition that instruct physicians to reflect on how they are analyzing a problem [33].

In summary, we recommend that Jason speak with Dr. Joynt about the error in a way that acknowledges accountability and conveys his desire to learn from the experience. We would expect Dr. Joynt to provide emotional support, share his experience with error, guide the disclosure process with the patient, and finally help shape Jason's clinical reasoning skills. Ideally, Jason would mature professionally, recover emotionally, and deepen his ability to reason when faced with future diagnostic dilemmas.

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Andrew A. White, MD, is an assistant professor and hospitalist in the internal medicine department at the University of Washington in Seattle. Dr. White's principal research and teaching interests concern the emotional response of clinicians to adverse events and how to prepare trainees for error disclosure. He is currently working with Thomas H. Gallagher, MD, on projects designed to raise awareness about physician stress after adverse events and to promote support systems in Washington state.

Thomas H. Gallagher, MD, is an associate professor in the Departments of Medicine and Bioethics and Humanities at the University of Washington in Seattle. His research interests include the disclosure of adverse events and medical errors to

patients, interprofessional communication, and transparency in health care. He is currently leading research and demonstration projects that promote open disclosure of medical errors and systems to better support distressed health care workers.

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