

Virtual Mentor

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Clinical Case

To Scan or Not To Scan?

Commentary by Marion Danis, MD

As a fourth-year medical student planning a residency in internal medicine, Rose Simmons enjoyed her rotation in the emergency room and saw it as a chance to learn practical points about patient management. She purposely chose Percy Hospital because of its diverse patient population.

One evening Rose was working with Dr Charles, a respected attending who had been at Percy for almost 10 years. Dr Charles handed her a chart. “Twenty-two-year-old male with abdominal pain, Rose. See him in Room 15 and then present him to me.”

Fifteen minutes later, Rose returned with her note and a radiology order form in hand. “Twenty-two-year-old male, no previous medical history, presents with abdominal pain that started this morning as crampy and diffuse and localized to the right lower quadrant over the past 2 hours,” she reported to Dr Charles. “He’s febrile to 102, slightly tachycardic, with rebound tenderness in the right lower quadrant. His white blood cell count is 16 000 with a left shift. Sounds exactly like the patient with a possible appendicitis that we sent to CT this afternoon; want to sign this order form so I can send him too?”

Dr Charles hesitated. “What does this gentleman do for work?” he inquired. Rose replied that he worked as a cashier in his family’s grocery store. “Does he have insurance?” Now it was Rose’s turn to hesitate: “He mentioned that he didn’t, but I reassured him that we would make sure that he gets the medical care he needs.”

“I’ll take a look at him to confirm your findings. Then, why don’t we call the surgeons and tell them that this patient needs to go to the operating room?” offered Dr Charles. He looked up from another patient’s chart to meet Rose’s confused stare. “CT can be helpful for the diagnosis of appendicitis, but it’s not the standard of care. This kid’s family would have to swallow the cost; \$1500 is a lot of night shifts at the grocery—or an uncompensated loss for the hospital. We can save the family the trouble—and save ourselves a potentially inconclusive scan—by trusting our clinical intuition and calling the surgeons now.”

Commentary

This scenario describes 2 different approaches to the diagnosis and management of insured and uninsured patients with similar symptoms. The juxtaposition leads to valuable insights.

Dr Charles has ordered an abdominal CT scan for an insured patient with suspected appendicitis; later in the day he suggests managing the care of an uninsured patient with suspected appendicitis without a CT scan. The delivery of a parsimonious plan of care for the uninsured patient may well be among the best strategies one could offer. By avoiding excessive and expensive diagnostic tests in clear-cut cases of appendicitis and proceeding to provide necessary treatment, the attending physician in this story may be providing the most cost-effective and affordable care possible.

One could argue that by offering frugal care, Dr Charles is being both prudent and kind to this uninsured patient. Whereas insurance allows those of us who have it to pool the financial risks of being sick, the uninsured patient must carry the financial burden of his or her medical care alone. For the uninsured patient, illness often imposes both sickness and poverty. By thinking about the financial burden for this patient, the doctor has been attentive to the social context of illness.

As we consider this scenario carefully, we notice that Rose Simmons, the medical student, perceives the disparity in care offered to the insured and uninsured patients and infers that the care of the insured patient reflects the standard of care. Yet we, and the student, should be cautious in making this inference. Often insured patients get excessive interventions merely because reimbursement is available. This may well be the case for the insured patient described here; CT scans are not always warranted because, despite their sensitivity and specificity, they have not led to a reduction in unnecessary operations [1-3].

Aside from the question of how good the CT scan characteristics are, when the clinical presentation is classic and clinical suspicion is high, Bayesian logic suggests that one ought to proceed to treat without the scan [4]. Bayesian logic applied here dictates that, when the clinically based probability is high enough, a test will not necessarily add to the verification of a diagnosis; it thus behooves a clinician to proceed immediately to treatment. If, as the narrative seems to imply, the insured and uninsured patients were similar in their presentations, the uninsured patient may have gotten the more cost-effective approach to care.

This initial interpretation of the scenario may be overly simplified. Appendicitis, or any other clinical problem, can present atypically, and the diagnosis can often be uncertain. If that is the case in this scenario, what should the attending do? One option that would preserve the cost-effective strategy of the physician would be watchful waiting prior to making a decision about surgery [5]. This option is ethically acceptable because of concerns about cost. In other words, this would be an ethically justifiable way to ration.

If, on the other hand, Dr Charles is uncertain about the diagnosis and does think that a CT scan would be the best approach to diagnosing the patient, he faces some tough options. He can either order it and risk incurring the anger of administrators at his institution who are intent on avoiding financial losses, or not order it and impose unfair rationing and the possibility of harm on an uninsured patient. In making this decision, Dr Charles is choosing whether or not to be complicit with an unfair system that denies equal access to uninsured patients [6].

Complicity is an ethical problem we all confront in a morally imperfect world. As Christopher Kutz suggests, when we live in a complicated world in which the harms imposed by economic, social, and political institutions affect our relationship with others, we must sort out whether we wish to participate and the degree to which we are thereby complicit in these collective harms [7]. His analysis—that to behave ethically we must each take some responsibility for what goes on—would direct Dr Charles to order the CT scan if he is in doubt about his uninsured patient’s diagnosis. Of course, Dr Charles might possibly suffer the consequences of the hospital’s financial loss, but he would do so while representing the patient’s well-being and interest.

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