DR. WITHERSPOON
CHIEF OF STAFF
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Fatal Assumption

A gentleman was evaluated by his physician for chest pain and slight shortness of breath. His cardiac studies and chest x-ray were normal.

The doctor diagnosed costochondritis, the discomfort associated with a strain or sprain where a rib attaches to the sternum. If so, it was a mild condition that typically resolves with time.

But the gentleman had recently taken a long airplane ride, so there was one more thing the doctor wanted to check. He ordered a spiral CT scan of his chest to be sure he had not suffered a pulmonary embolism. His suspicion for embolism was low but it was the one possibility that would require immediate attention if present.

Several days later, the doctor was going through test results when he encountered a radiology report. It described a spiral CT scan that was positive for pulmonary embolism. It was the scan he had ordered on the gentleman who had chest pain after a long plane ride.

The report was a week old.

Alarmed, the doctor immediately called the patient. Luckily, he seemed okay. He was admitted to the hospital and placed on an anticoagulant.

The doctor was furious that the radiologist had not informed him of the positive scan, sending the report out as routine. He demanded the hospital review the incident. As a result, the hospital initiated a new policy requiring prompt reporting of certain emergent x-ray and laboratory findings.

Less than a year later, an almost identical requirement would become a federal mandate for all hospitals.

Dr. Witherspoon Says:

That was close! Walking around for a whole week with a pulmonary embolism is about as dangerous as it gets. If any more clots had broken free from his leg veins, he might have bought the farm.

First of all, I have to credit this doctor for thinking of pulmonary embolism based on the history. A long period of inactivity with the legs in a dependent position, such as sitting upright for hours in an airplane, is a classic scenario for generating this problem. A lot of doctors may not have made the connection.

Sluggish flow in the lower legs can predispose to clot formation which may propagate, that is, move up the veins to the right side of the heart and enter the lungs. A large enough clot can occlude the pulmonary artery, stopping outflow from the right side of the heart, a fatal event.

There are valves in the leg veins that facilitate upward flow activated by muscle contraction. If sitting for hours, doing ankle pumps or calf and thigh isometric muscle contractions will help prevent clot formation. Usually, there is also swelling of the clotted leg. Any unexplained swelling of a leg, especially if it's unilateral, should undergo a doppler flow study (ultrasound) to test for a deep venous thrombosis (blood clot).

Now then. I'm mighty tired o' reading about critical tests results that sat there gathering dust because nobody did anything. That is one of the most common mistakes in medicine. From the lowly pulmonary nodule on a simple chest x-ray to a CT scan showing an intracranial hemorrhage, I've encountered case after case of serious conditions left untreated, the critical "window of opportunity" passing by.

The classic teaching is that the responsibility for taking action rests on the doctor who ordered the test. That's sort of the "law of the west" in medicine. If you ordered it, you're responsible for it.

In this case, the doctor who became so upset happened to be the doctor who ordered the test. Now, I certainly agree, the radiologist should have notified him of the critical finding. Because of the new regulations that would have been a requirement, had this occurred recently. This is an old case.

But he ordered the test and, as far as I'm concerned, that makes him responsible for taking appropriate action based on its results. He may be all worked up with righteous indignation, but if he really wanted to nail down the responsible party for a seven-day-delay in the treatment of his patient's pulmonary embolism, all he needed to do was look in a mirror.

If I had ordered a spiral CT scan on a patient I thought might have a pulmonary embolism, I wouldn't let the sun go down without finding out the result. That's one of those things that'll make you bolt upright out of a sound sleep at 2:00 AM, call the hospital, and get an answer. I'd have to know.

We now have a mandated notification requirement for critical tests like this one to prevent important results from "falling through the cracks," getting lost, or simply forgotten, especially radiology findings. Typically, the doctor assumed the radiologist

would call him if he found something serious and the radiologist assumed the doctor would look it up himself, since he ordered it; their assumptions met in the middle and cancelled each other out, so nobody did anything. Now the notification requirement puts the responsibility on the department performing the test, such as radiology or the laboratory. That made things safer, but it muddied the water a bit, drawing fire away from the ordering physician.

The notification criteria seem to vary widely. Some tests interpreted as critical turn out to be insignificant, yet occasionally a serious finding is treated as routine.
There remains a lot of "gray area," to say the least, and a lot depends on who's deciding what is or is not "critical." There's always a list but they are rarely inclusive. So many things can go wrong, lists just can't cover everything. A woefully inadequate system is now better than it was, but it remains far from perfect.

The single most important lesson to learn from this case is that one should never assume an important test must be okay because nobody said anything about it. That can be a fatal assumption. And, I must say, if it's an important test, patients should never accept the ol' "If you don't hear from us, everything's ok," routine. The safest thing to do is get an answer.

In the final analysis, if you ordered it, you need to look it up. Practitioners are responsible for initiating appropriate treatments or referrals mandated by the results of the tests they order. Every test has an ordering practitioner's name attached and that is the responsible party.

Exceptions are those who work in shifts and turn over their services to other practitioners when relieved, such as hospitalists and emergency department providers. In those settings, we get into problems associated with "turnover" and that is yet another problem to be addressed in yet another case.