Test Result Communication Failures

It would be hard to find a more preventable significant oversight than that of failing to communicate an important test result to a patient. Imagine you are that patient and you are told to get a specific test to rule out a significant illness, such as cancer or infection. You get the test; the results are not good but the disease is more easily treated in its early stages. However, you don’t learn of the results until critical time has passed. In our closed claim analysis, this scenario happens in 3% of our claims. Three percent is a large number when you consider a few statistics:

- The majority are test results identifying cancer, most notably lung cancer.
- The severity of the injury to the patient is 50% greater than the average of all other claims.
- The percentage of claims with any indemnity payment is 32% higher than other claims.
- The average indemnity payment for these errors is 30% higher than the average for all other claims.

The majority of errors (76%) involving communication of test results occur in an outpatient setting - most often in the office - followed by the emergency department (ED). The inpatient setting accounts for 24%, and generally involves the transfer of the patient from one department to another (ICU to patient floor, surgery to ICU, etc.).
Across all locations, we see a variety of responsible services, with family, emergency, internal medicine, and radiology specialties accounting for approximately half of all claims.

**Figure 1. Patient Locations**

**Figure 2. Top Responsible Specialties**
Figure 3. Most Frequent Diagnoses Noted - by Location

Regardless of the setting and responsible service, cancer diagnoses are the primary diagnosis and lung cancer is the most common cancer when the process for test result communication fails.

Figure 4. Top Cancer Diagnoses

Lung cancer, more often than any other cancer, was noted in the non-office setting cases. Incidental findings on imaging tests performed in the ED or while the patient was hospitalized which were not subsequently communicated to either the patient, the attending physician or to the patient’s primary care provider were most often behind these claims.

Risk Mitigation Strategies

Preventing these non-communicated test result failures can be easier than it may seem, by implementing a few measures.

- Electronic health record systems often have features for tracking tests that can notify you if results are not received by certain dates. Determine if your EHR has that feature and utilize it. If this feature is not available, simple tracking systems for critical tests (such as those when you suspect, or are testing for, cancer or significant disease)
should be implemented, including note cards filed by dates. The cards are not refilled, nor is the chart closed, until results come back.

- In the ED and inpatient settings, ensure that you have a process to follow up on test results which are returned after patient discharge. The clinician who ordered the test should have responsibility for reviewing the results and either acting on those results, if appropriate, or getting the result(s) into the hands of the provider in charge of managing the patient’s care.

- If you are very worried about the expected test result, schedule the next patient visit before the patient leaves your facility. Ensure that you have a good system for following up on no shows, and make sure you schedule immediately again if there is a cancellation.

- Use the patient as a safety net. Never, ever tell the patient that if they do not hear from you that everything is normal. Results can get lost in transit and the patient might conclude that all is well.

- In the office setting, ensure that you utilize problem lists that plainly show the outstanding issues for each patient. Review that list at each visit to avoid missing opportunities to follow up on outstanding test results (as well as those tests which the patient may have not yet completed).

- Where there are multiple clinicians involved in caring for the patient, ensure that you have determined who “owns” the patient to avoid anyone assuming that someone else has taken care of the test result.

**Case Illustrations**

**Case 1: outpatient not notified of result; failed follow-up after no show appointment**

A patient in his late 20’s presented to the ED with right lower quadrant (RLQ) abdominal pain. Surgeon A ordered a CT of the abdomen and pelvis with contrast that was interpreted by Radiologist (Rad) A as adenopathy, and possible 4 cm soft tissue mass in RLQ. The differential diagnosis included acute appendicitis. Surgeon A performed a laparoscopic appendectomy and drainage of retrocecal abscess, and recommended a follow-up CT in a few weeks with a colonoscopy to rule out any other acute processes.
Four days later, prior to discharge, a CT of the abdomen and pelvis was repeated and interpreted by Rad B as showing slight inflammation in RLQ, but no evidence of acute disease (Rad B did not comment on the soft tissue mass identified by Rad A and did not identify thickening of cecum). The patient was discharged from the hospital with instructions to return to the Surgeon A’s office in one week.

At the follow-up visit, the patient was advised that there may be a neoplasm of the cecum and small bowel, and was therefore prescribed a small bowel follow through series and a colonoscopy. The patient was told to follow-up thereafter with Surgeon A. Although a small bowel follow through study was done, the patient did not return to Surgeon A’s office for an appointment. The study was interpreted by Rad B, who noted questionable filling defect involving the lateral border of the cecum suggesting additional review. Patient alleges he was not advised of results of testing by either physician. Patient had no follow-up for 12 months until he presented to the ED with severe RLQ abdominal pain. A CT of the abdomen showed a large mass in the right lower quadrant. Metastatic colon cancer was diagnosed.

Case 2: inpatient critical result not relayed to ordering physician; ownership of care

A 19-year old driver who was involved in a head-on motor vehicle accident was taken to the ED. She had sustained bilateral ankle open fractures. Orthopedic surgeon (Ortho) A performed an open reduction/internal fixation of the right and left malleolus and left talus. A general surgeon also performed repair of bowel injury. A CT angiography (CTA) of the abdominal aorta and bilateral lower extremities showed injury occlusion of both common iliac arteries as a result of the trauma. This critical finding was not called to any physician.

One day later, Ortho B, who was covering for Ortho A, became aware of the CTA result after a nurse pointed it out, noting “both feet anesthetic, cool, poor cap refill.” Ortho B assumed that since a cardiovascular consult had been made that Ortho A was aware of the CTA results and the issues were being addressed. While Cardiology had seen the patient the day before and was informed of the CTA, he was unable to immediately locate report and so never saw the results, and never followed up. Cardiology signed off on the patient after evaluating for possible cardiac trauma.
Two days later Ortho A took the patient back to surgery for closure of wounds, not appreciating the circulatory compromise. Over the subsequent days, the patient’s circulatory status continued to deteriorate. There is no documentation in the chart that Ortho A was aware of the occlusions until compromise was profound, at which time bilateral above-the-knee amputations were performed. There were numerous documented nursing concerns with circulation but no escalation of concerns to supervisors. Ortho A admitted he did not know how to access nurse’s notes in the electronic record.

**Resources**

- **Risk Factors That Contribute To Diagnostic Errors**
- **Risk Q&A: Incidental Radiology Findings**
- **Protocols for Addressing Clinical System Risk Factors**

**Data Source**

MedPro Group closed claims data, 2008-2017