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 case analysis, scenarios such as this occur in 3% of our cases. Do not discount 3% as a small number; it is in fact a large number when you consider a few statistics:

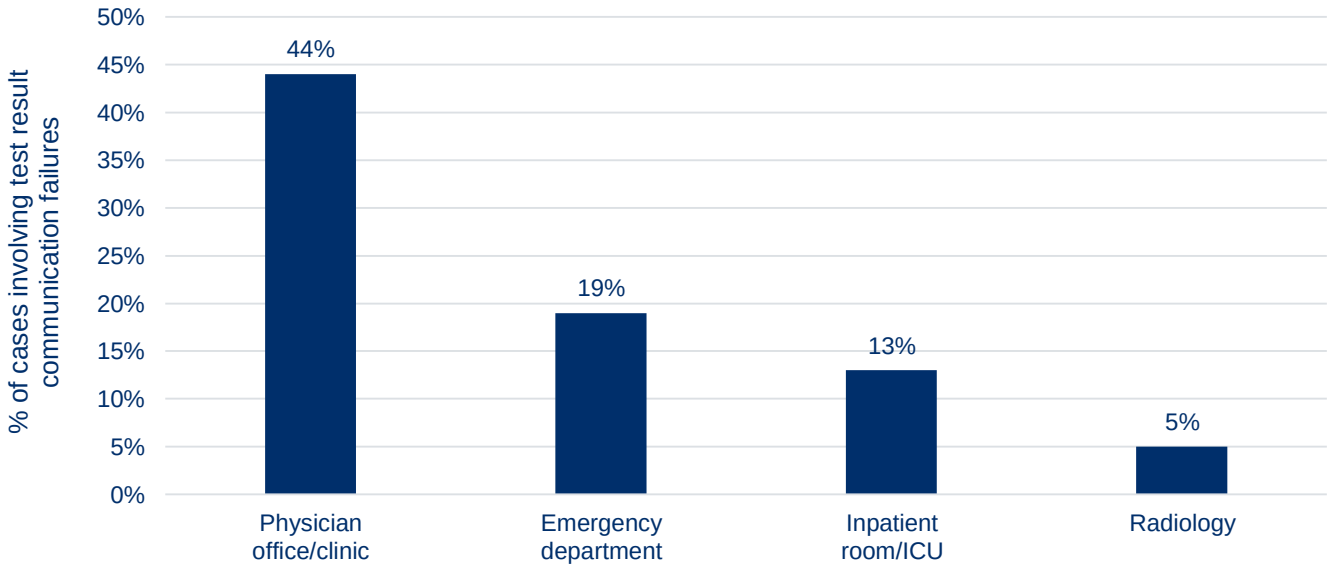
- The majority are test results identifying cancer, most notably lung cancer.
- High clinical severity injuries to patients are noted 41% more often than all other cases.
- The percentage of cases with indemnity paid is 18% higher than all other cases.
- The average indemnity paid for these test result cases is 48% higher than the average of all other cases.

Where and Why

Almost two-thirds of errors involving communication of test results occur in an ambulatory setting - most often in the office - followed by the emergency department (ED) (Figure 1). The inpatient setting accounts for another one-quarter of communication failures. Incidental findings on imaging tests performed in the ED before inpatient admission 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 inpatient cases.

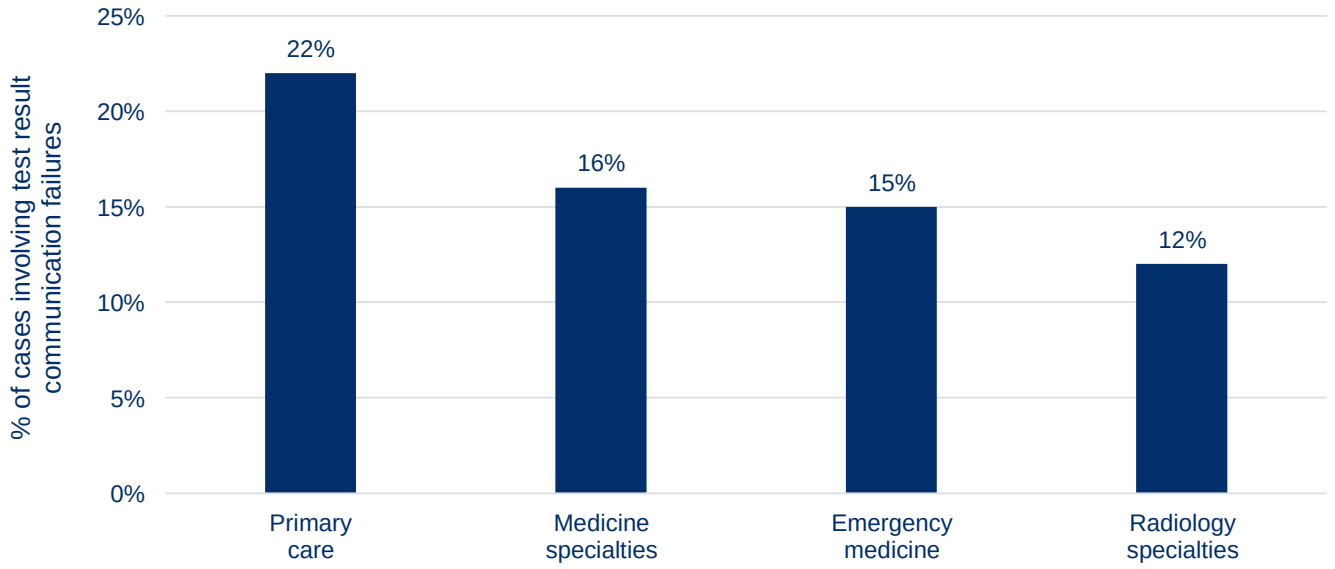
Data source: MedPro Group + MLMIC cases involving communication of test results opened 2012-2021 (N=862)

Figure 1. Most Common Locations



Across all locations, we see a variety of responsible services. Primary care, medicine specialties (most often gastroenterology, cardiology, medical hospitalist and dermatology), emergency medicine and radiology specialties account for the majority of cases (Figure 2).

Figure 2. Most Common Responsible Services



Data source: MedPro Group + MLMIC cases involving communication of test results opened 2012-2021 (N=862)

The specific test result-related failures identified in these cases are many:

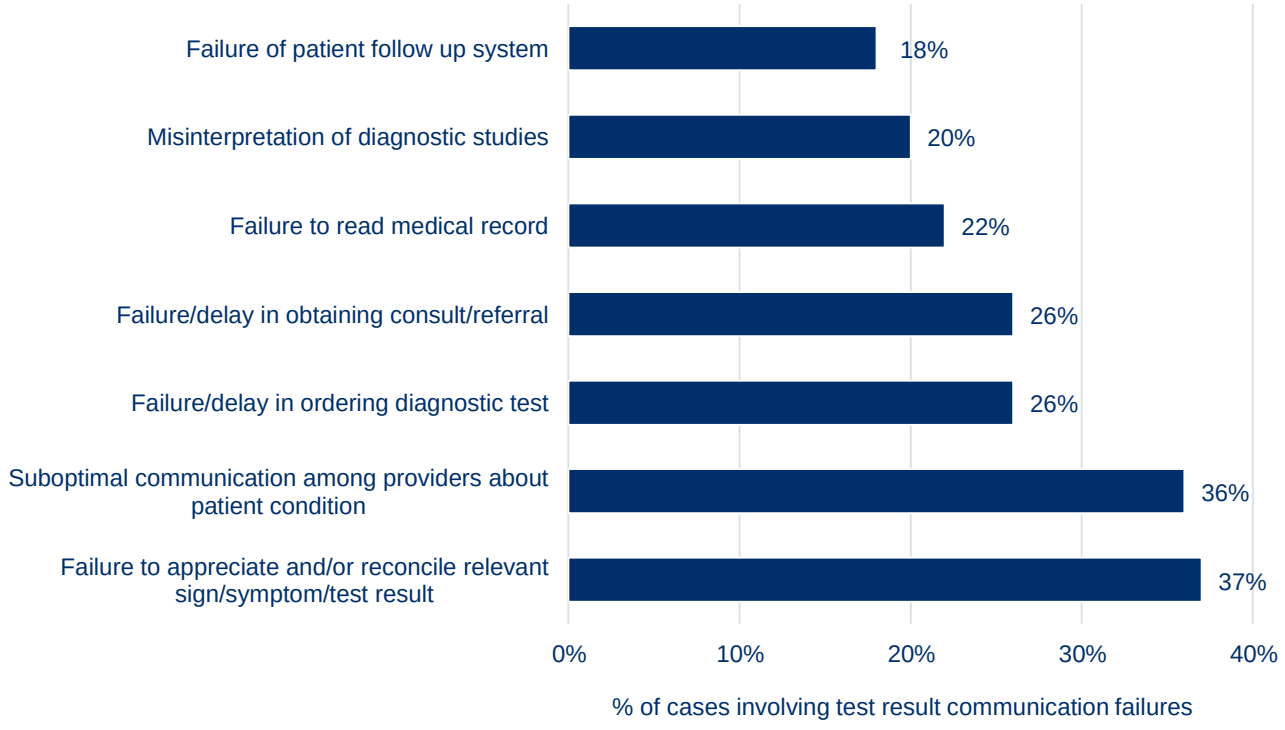
- Patients do not receive test results.
- The ordering clinicians do not receive the results, including for these reasons:
    - Results were filed before clinician review; or

      Reports were sent to the wrong clinician.
- Test result reporting was delayed, including those involving incidental findings.
- The turnaround time for reporting test results took too long.

The Intersection of Events

Rarely is there just one underlying risk factor behind an adverse patient outcome. Cases involving test result communication failures are no different (Figure 3).

Figure 3. Additional Risk Factors in Test Result Cases



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Case Studies

Case Study: Delay in Diagnosis of Cardiomyopathy

An active male patient in his early 60's presented to his primary care provider for a routine exam. A pre-existing cardiac murmur was now more pronounced, and the patient was referred for an echocardiogram (echo) and cardiac lab work, with a follow-up appointment scheduled for six months later.

The patient quickly followed through with both the labs and the echo. Results of both were faxed to the primary care provider's office, showing a concerning ejection fraction (30-35%; normal results are usually 55-75%) and moderate to severe global hypokinesis (decreased heart wall motion). The results were added to the patient's electronic health record by an office clerk; however, the clerk did not check the box which would have sent the results to the primary care provider's in-box, therefore, the results were never viewed.

Six months later, the patient returned as scheduled, complaining of elbow pain and inquiring about the echo results. Once the error was discovered, the patient was referred to a cardiologist, but not as a STAT referral. One month later, the patient was seen by a cardiologist who wanted to schedule a cardiac catheterization, but not STAT, for two days later. The patient opted to schedule it at a larger facility, but couldn't schedule it until four days later. Unfortunately, the patient suffered a fatal myocardial infarction before the catheterization could be performed.

Since this event, the primary care provider implemented an office policy and procedure to handle incoming test results which ensures that results cannot be permanently filed before being reviewed and signed off on by the physician.

The case was settled for $450,000. Additional risk factors were noted as follows:

- **Administrative:** Need for policy/protocol, mishandling of patient test results, inadequate staff training/education
- **Clinical judgment:** failure to schedule invasive procedure as STAT, failure to obtain STAT consult

Case Study: Delay in Treatment of Lung Cancer

A male patient in his late 60's with multiple co-morbidities presented to the emergency department complaining of an altered mental status. Multiple imaging studies were ordered, including a head/neck CT angiogram. In the report findings, the radiologist documented a 12mm nodule in the right lung apex concerning for malignancy, but the "impressions" section of the report indicated only "no significant carotid artery stenosis and no significant abnormalities of intracranial arteries."

The patient was admitted by hospitalist A, who completed the patient's history and physical. Hospitalist B saw the patient the following day, and then discharged the patient one day later. Eighteen months later, the patient presented with neck and shoulder pain; a thoracic spine CT revealed a 5 cm lung mass, consistent with a primary pulmonary malignancy. The mass had also invaded two right-side ribs.

The patient underwent aggressive chemotherapy and radiation therapy, but unfortunately passed away six months later. During the subsequent medical malpractice case, the radiologist admitted he should have documented the lung nodule finding in the “impressions” section. An expert opined that that because the nodule was documented in the "wrong" place within the report, the emergency medicine physician and the hospitalists did not identify and follow up on the finding. The patient's primary care provider also received the radiology report and also did not see the notation of the lung nodule.

The case was settled for $200,000. Additional risk factors were noted as follows:

- **Clinical environment**: all care at the hospital occurred over a weekend
- **Communication**: failure to read the entire radiology report

Risk Mitigation Strategies

Preventing these non-communicated test result failures is possible 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 refiled, 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.

Resources

- **Incidental Radiology Findings**
- **Preventing Patients From Slipping Through the Cracks**
- **Risk Factors That Contribute to Diagnostic Errors**

About MedPro & MLMIC Data

MedPro and MLMIC are partnered with Candello, a national medical malpractice data collaborative and division of CRICO, the medical malpractice insurer for the Harvard-affiliated medical institutions.

Derived from the essence of the word candela, a unit of luminous intensity that emits a clear direction, Candello's best-in-class taxonomy, data, and tools provide unique insights into the clinical and financial risks that lead to harm and loss.

Using Candello's sophisticated coding taxonomy to code claims data, MedPro and MLMIC are better able to highlight the critical intersection between quality and patient safety and provide insights into minimizing losses and improving outcomes.

Leveraging our extensive claims data, we help our insureds stay aware of risk trends by specialty and across a variety of practice settings. Data analyses examine allegations and contributing factors, including human factors and healthcare system flaws that result in patient harm. Insight gained from claims data analyses also allows us to develop targeted programs and tools to help our insureds minimize risk.