

# Improving Communication of Unexpected Findings: The Radiology Actionable Findings Tracking (RAFT) System

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# Background

- \* Imaging studies may contain unexpected findings which are not critical results but require follow up, either with additional interval imaging or referral to specialty services. These findings are deemed noncritical actionable findings.
- \* Lack of communication or follow up can miss or delay follow up imaging or treatment. This can lead to serious patient morbidity and medicolegal liability.
- \* The American College of Radiology recommends additional radiologist communication to the ordering clinician or patient when there is a finding that is *“significant and unexpected, may have a reasonable probability of impacting the patient’s health, and may not require immediate attention but, if not acted on, may worsen over time and likely result in an adverse patient outcome”*.

# Examples of Barriers to Communicating Nonemergent Results

Reporting results overnight or on the weekend to a primary care physician (PCP) or specialty physician who works during business hours with an “on call” physician can be challenging.

Given the pace of most radiology practices, time-limited radiologists may not be able to afford spending time to track down PCPs or other services.

It may not be appropriate or feasible to address nonemergent findings during an inpatient medical stay, and these findings may be overlooked when the patient is discharged.

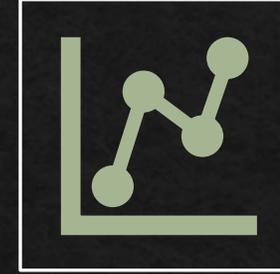
# Goal of the RAFT Project



To improve the communication of unexpected radiologic findings



Increase patient awareness of imaging study findings

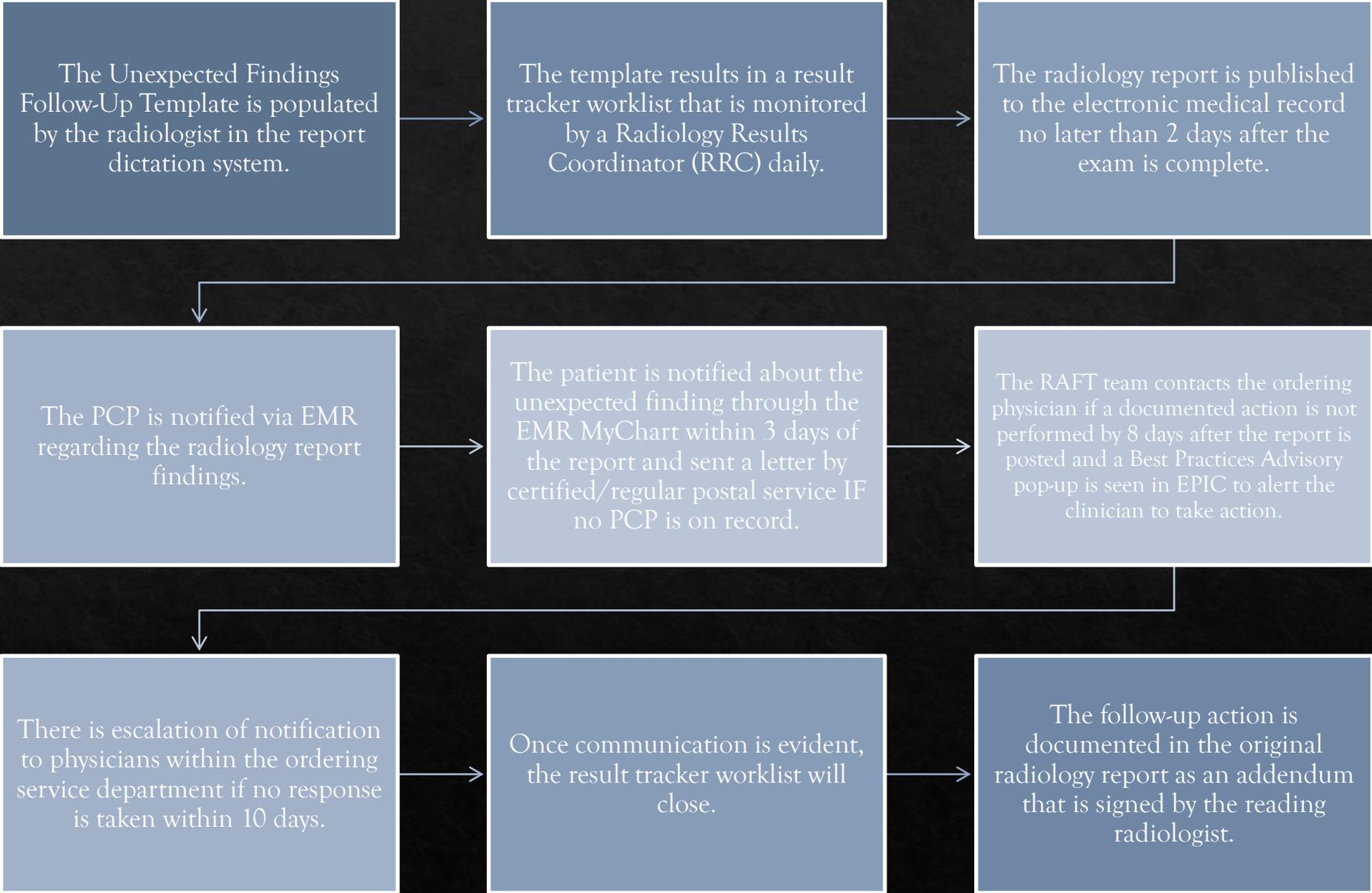


Quantify data on unexpected findings and their follow-up

We implemented a trackable program linked to the radiology report that was integrated into the electronic medical record (EMR). Clinical navigators with significant healthcare experience were in charge of contacting clinicians and documenting the communication loop.

A similar program was implemented in Duke University Medical Center and described by Schwartz et al. in 2021, where 11% of the actionable findings were malignancies.

# RAFT Workflow



# Closing the Loop

The concept of closed loop communication, where the significant finding is acknowledged by the recipient, is a crucial part of reporting unexpected findings. The RAFT program has measures to ensure a finding did not get lost to follow up, either by prompting the clinician or alerting the patient themselves.

## For clinicians:

For as long as the finding remains unacted upon, a “Best Practices Advisory” pop-up appears when clinicians open Order Entry in the patient’s chart in Epic.

BestPractice Advisory - Radiant, Brenda

**Critical (1)**

There is an open critical result on this patient.

**Finding - Critical**  
Found on: Dec 28, 2020 on XR Chest 1 View  
Read by:  
Recommendation: CT Head - Immediate

Addenda: Addendum: 1

TEST TEST

10/30/2019 2:58 PM

Addendum: 1

TEST TEST

10/30/2019 2:58 PM

Impression: TEST TEST TEST TEST TEST TEST COMMENTS: TEST TEST TEST TEST TEST TEST  
[[By selecting Acknowledge, you certify that you have reviewed the above findings and will provide further patient care as needed.]]

⚠ Acknowledge Reason

Follow-up action(s) taken

Accept Dismiss

## For patients:

The patient is notified with a letter sent to the patient’s home with the imaging report as well as to the patient’s MyChart EPIC personal account.

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**PERSONAL AND CONFIDENTIAL**

[Date]

[Name]

[Address]

Dear [Name],

Your recent [procedure] on [procedure date] showed a finding which **may require additional follow-up** such as additional studies for complete evaluation or a discussion with your health care provider.

Please contact your primary care physician to discuss the finding and if any additional recommended follow-up is necessary. If you do not have a primary care physician, call 866.600.2273 or please visit our website at [www.hospital.uillinois.edu](http://www.hospital.uillinois.edu) to schedule a new appointment.

You may also view your finding using the [MyChart](http://mychart.uhealth.care) online healthcare tool at [mychart.uhealth.care](http://mychart.uhealth.care). When you open the website, follow the instructions to activate or log in to your account.

Thank you for allowing us to help meet your health care needs.

# Radiology Actionable Findings Tracking (RAFT) Program Findings

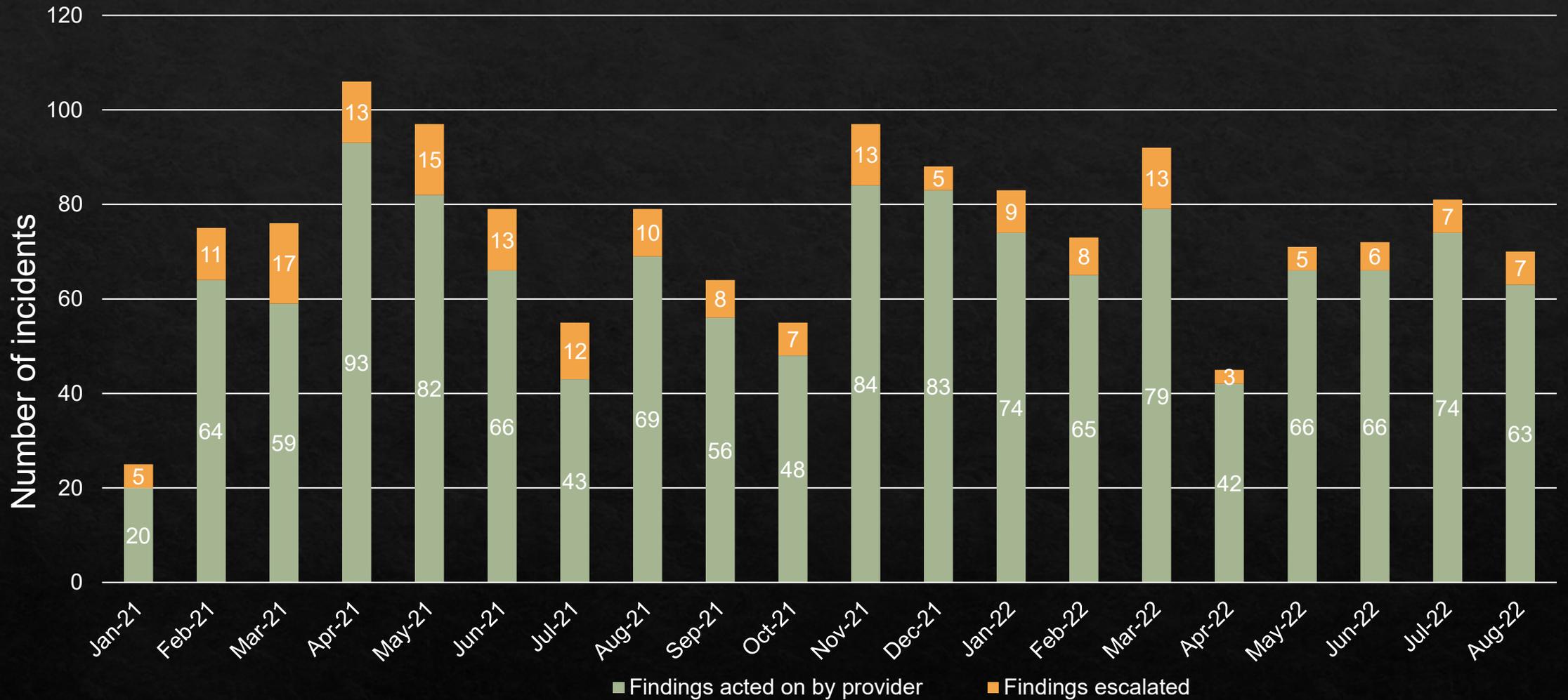


Figure 1: Data from 20 months from our institution demonstrates the number of findings that were followed up on and those that were escalated. The RAFT program timeline works to prevent a finding from being lost to follow up with a designated time course for message escalation.

# Examples of Clinical Impact

On average, 74 unexpected findings were acted upon per month and tracked by the RAFT program.

Many of the findings were potential malignancy workup. For example, a patient was notified of a new lung nodule after an emergency department visit for an unrelated chief complaint and was appropriately referred to pulmonology service. Subsequent imaging and biopsy revealed early-stage lung adenocarcinoma.

For those patients who present through the ER without PCPs in the UIH system for follow up, the results were mailed directly to the patient.

Of the respondees, 85% of informally surveyed radiology residents and attendings found the template easy to use and understand.

In total we recorded 45 patients who were discharged from the ER without a recorded PCP on file. They were notified of findings by phone and postal mail.

The findings included 4 indeterminate liver lesions, 7 breast nodules, and 13 pulmonary abnormalities.

# Summary/ Future Directions

- \* The RAFT system was able to ensure and track follow-up for significant unexpected findings over the course of 20 months since its implementation.
- \* The team of clinically trained coordinators ensured that either the provider, patient or both were notified of the finding. The reminder pop-up built into the EMR ensured the responsible provider would be notified of this pending action until acknowledgement and action was taken. This was then reported in the initial radiology report as an addendum.
- \* 85% of surveyed radiology residents and attendings who responded found the system easy to use and understand. Suggestions for improvement include allowing radiologists to view the number of outstanding follow up results as well and simplifying the number of pick-list options for diagnoses and suggested follow-up.
- \* Future directions includes mapping further cases of detected malignancies and other diagnoses and their clinical impact.

# Works Cited

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