

# Improving the Tracking and Management of Actionable and Incidental Imaging Findings

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# At Our Institution

~ 50,000

Actionable/incidental findings expected annually

~1/3

May not get appropriate follow up

8

Documented serious safety events over 5 years

# Project Goals

Develop and implement technological tools and processes to ensure appropriate and timely management of patients with actionable and incidental imaging findings

# Multi-Pronged Information Cascade

ACTIONABLE RESULT: FOLLOW-UP

Acuity: [Actionable]

Findings: [Digestive Tract Routing Code: GI\_1]

Recommendation: [MRI PANCREAS/BILIARY WO/W IV CONTRAST]

Time Frame: [3-6 months]

COMMUNICATION: Results will be communicated with the ordering provider via Epic staff message or phone message by Imaging Support Services within 2 business days of report finalization.

HL7-OBX

Acuity Based Discrete Storage in  
EHR

Display (!)

Follow-up  
order link

BPA

Result  
tracker

Dashboards

MyChart  
AVS/DCS

# Information Cascade

**Chart Review**

Encounters Lab **Imaging** Proc Cardiac Other Ord Meds Episodes Letters Notes/Trans Misc Reports RT Scanned Docs Telemetry Auth Consents LDAs

Preview  Refresh (10:11 AM)  Select All  Deselect All  Review Selected  Route  Add to Bookmarks

Filters  Canceled/Inpatient  Resulted  US  CT  MRI  VASCULAR LAB  MAMMS  PLAIN FILMS  IR  GI  US  CT

Medications and orders also exist in active treatment plans: [BMT NON-CHEMO](#)

Date	Test	Status	Critical/Actionable	Location
11/01/2019	US ABD RT UPPER QUADRANT	Final result	!	CC-IP

**“!” Alert**

**“!” Alert**

**Follow-Up Recommendations**

**Place Follow-up Orders**

**NM INFECTION WB WBC**

The screenshot shows the EpicCare interface for patient Pttwo ZZZRADIANTAF. The left sidebar shows 'My Messages' with a 'Results (55)' section. The main content area displays patient information, including 'Pttwo ZZZRADIANTAF', 'Female, 30 year old, 12/14/1989', and 'MRN: 95011112'. The 'Follow-Up Recommendations' panel is highlighted with a red box and contains a table with the following data:

Due	Finding	Recommended by
11/17/2020	NM TUMOR WB OCTREO (1271204) as soon as possible, when the patient's clinical state allows.	reproductive tract Routing code: GU_2 - Actionable

The 'Place Follow-up Orders' button is circled in green. At the bottom of the screen, a yellow banner displays a red exclamation mark icon and the text 'NM INFECTION WB WBC'.

# Result Tracking

## Recommendations Needing Follow-up - CCHS ACTIONABLE FINDINGS OPEN RECOMMENDATIONS - Total Count: 3033 - Patients: 2622

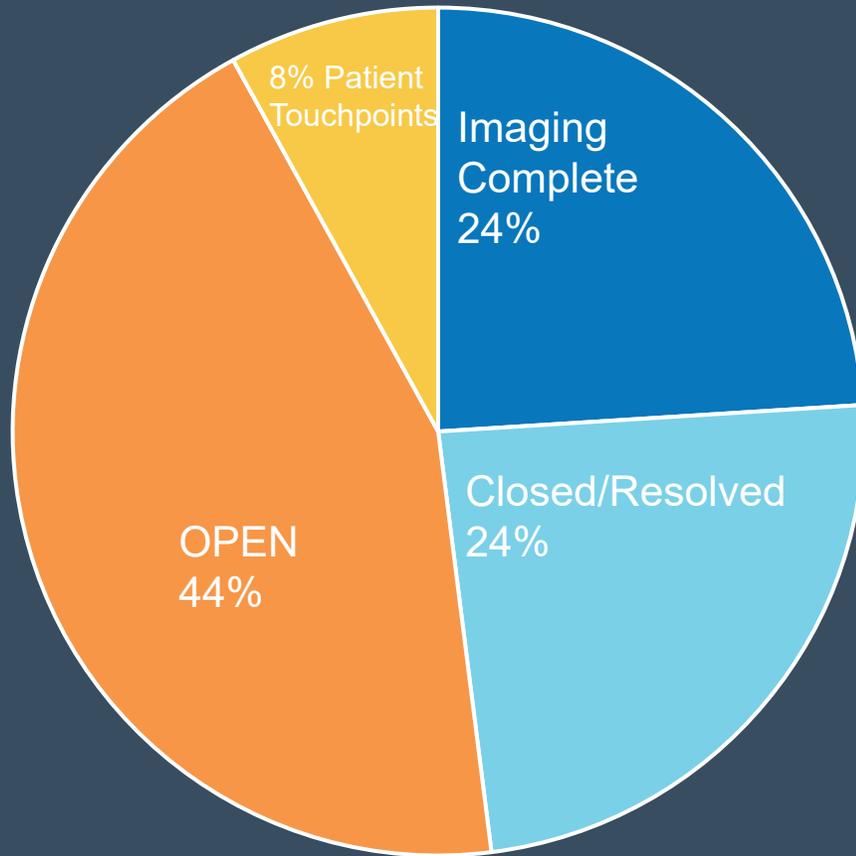
Refresh 
 Views ▾ 
 Layout ▾ 
 Appt Desk 
 Track Regs 
 Follow-up Orders 
 Scan Document 
 Snapshot

Row height:

Finding/Routing Code	Due Date	Days Overdue	Ag.	Pat	MF	Procedure	Recommendation	Re Order Linked?	Ord Comp?	Appt Linked?
Thoracic-Lung nodules Routing code: RI_1	09/29/2021		6...	H..	7..	CT CHEST W IVCON PE	Additional evaluation as described in the impression in 6-12 months.			
Thoracic-Lung nodules Routing code: RI_1	09/29/2021		6...	T..	8..	CT PULMONARY VEIN W IVCON	Additional evaluation as described in the impression in 6-12 months.			
Thoracic-Lung nodules Routing code: RI_1	09/29/2021		8...	K..	8..	CT PULMONARY VEIN W IVCON	Additional evaluation as described in the impression in 6-12 months.			
Fleischner Criteria: Solid 6-8 mm (solitary n...	09/30/2021		4...	P..	8..	CT CHEST W IVCON	CT Chest WO IVCON in 6-12 months.	✓	✓	
Thoracic-Lung nodules Routing code: RI_1	09/29/2021		6...	L..	8..	CT CALCIUM SCORING (CARDIAC)...	Additional evaluation as described in the impression in 6-12 months.			
Fleischner Criteria: Non solid 6 mm or grea...	09/29/2021		5...	M..	2..	CT CHEST W IVCON PE	CT ADRENAL WOW IVCON MASS EVALUATION in 6-12 months.			
Fleischner Criteria: Solid 6-8 mm (solitary n...	09/29/2021		6...	L..	8..	CT ABD/PEL WO IVCON	CT Chest WO IVCON in 6-12 months.			
Fleischner Criteria: Non solid 6 mm or grea...	09/30/2021		6...	M..	3..	CT ABD/PEL WO IVCON	CT Chest WO IVCON in 6-12 months.			
Fleischner Criteria: Non solid 6 mm or grea...	09/29/2021		6...	H..	8..	CT CALCIUM SCORING (CARDIAC)...	CT Chest WO IVCON in 6-12 months.			
Fleischner Criteria: Solid 6-8 mm (solitary n...	09/30/2021		7...	S..	8..	CT CHEST W IVCON PE	CT Chest WO IVCON in 6-12 months.			
Fleischner Criteria: Solid 6-8 mm (solitary n...	09/30/2021		7...	G..	4..	CT CHEST W IVCON PE	CT Chest WO IVCON in 6-12 months.	✓		
Liver Routing code: LV_1	09/30/2021		4...	J..	8..	MRI LIVER WOW IVCON	MRI LIVER WOW IVCON (add Eovist in comments) in 6-12 mont...	✓	✓	



# Status of Imaging Recommendations



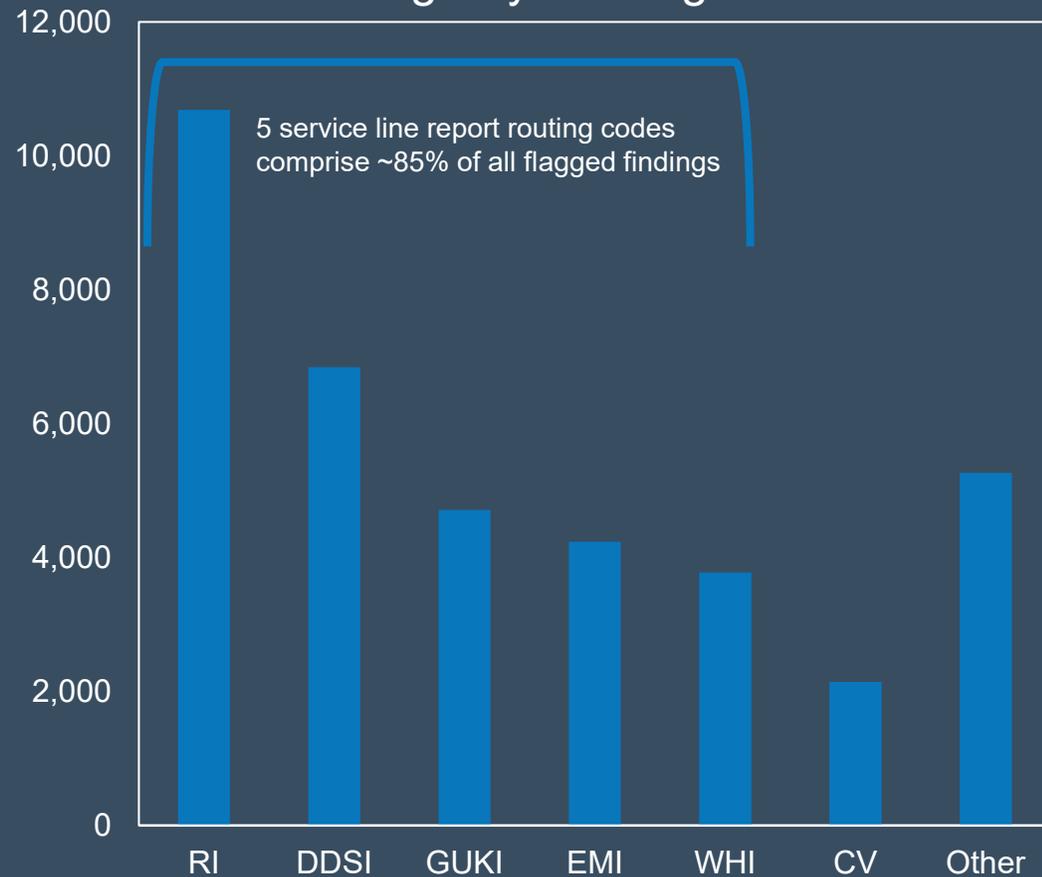
● 12/5/2020 Go-Live Date

● 37,674 Recommendations

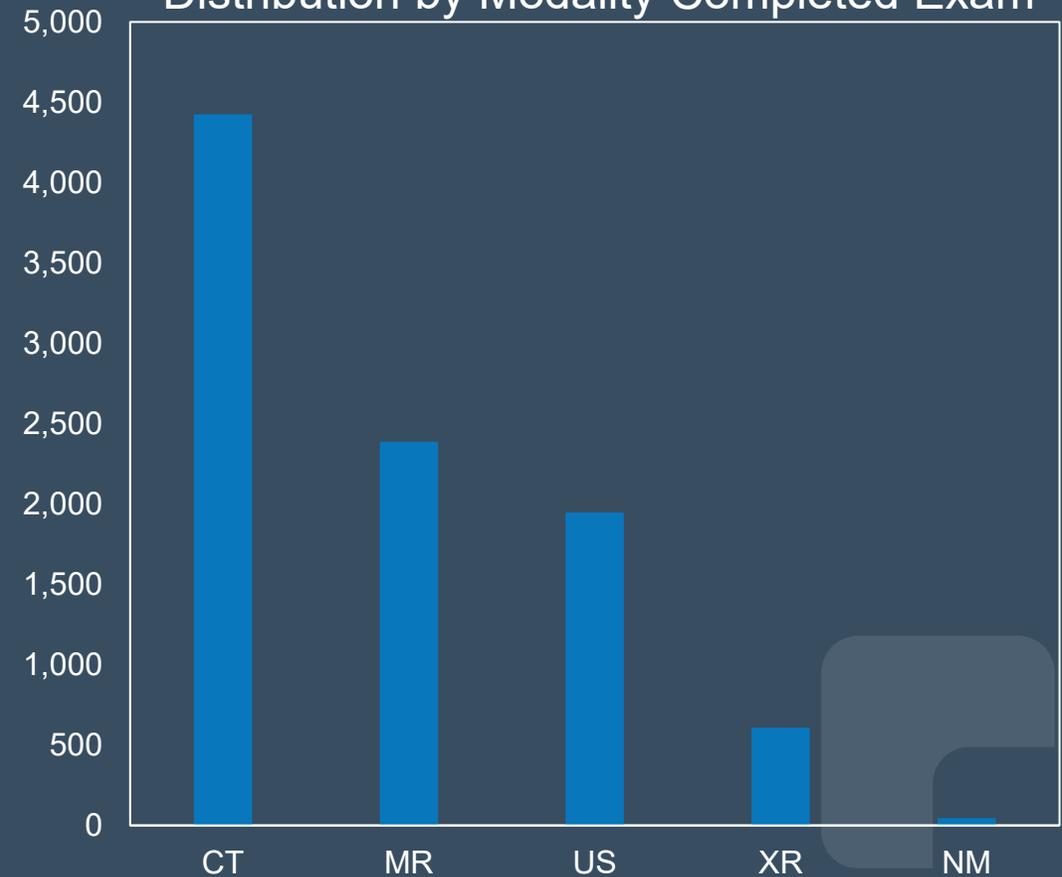
● 21,097 (56%)  
Recommendations addressed

# Analysis

## Findings By Routing Code



## Distribution by Modality Completed Exam



# Conclusions

- Initiative serves as a model for strong multi-institute collaboration
- Imaging acuity rating based templates drive downstream workflows
- Multi-pronged enhanced Epic notifications alert providers and patients
- Layered safety framework and time based criteria drives high reliability



# References

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