Increasing Trust Between ED and Radiology

Communicating Urgent Discrepancies Between Preliminary and Final Reports

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Problem: Published preliminary reports increases complexity

- On call radiology residents at our institution publish full-length preliminary reports
- Emergency physicians rely on preliminary reports to make early triage and treatment decisions
- Studies have shown the resident-to-attending report discrepancy rate to be less than <2%\(^1-3\)
- McWilliams\(^2\) reported that changes in patient management occurred in 44.6% of cases with discrepancies, primarily in the form of repeat imaging
- Discrepancies in reports marked by attending radiologists as “urgent” were directly communicated to ordering providers in only 75% of cases within our institution

Team: Diverse perspectives and unique insight

- Team Leads: Neuroradiologist and Emergency Medicine Administration Fellow
- Quality Improvement Coach
- Radiology Residents (PGY-2, PGY-3, PGY-5)
- Radiology Reading Room Assistant
- Emergency Room Nurse Manager
- Radiology Program Manager
- ED and Radiology Sponsors: Associate Chairs of Quality Improvement
SMART goal targeted to increasing communication

"Increase the rate of communication of urgent discrepancies between preliminary and final radiology reports for cross-sectional studies from 75% to 90% in 20 weeks."
Process mapping helped identify opportunities to communicate

Trainee reviews imaging 

Critical findings 

Communication to provider 

Prelim report issued 

Change in report 

Major change 

Communication to provider 

Communication of "minor" changes dependent on attending 

Finalized report 

Finalized report 

Current communication pathways

ED resident or attending

Resident/Attending

Resident/Rounds Assistant
Cause and effect analysis identified key drivers

Communicating report changes must be clear and easy

Urgent and non-urgent report changes must be mutually understood

Knowing who to contact must be easy to find

Determining whether a report is finalized must be obvious
Interventions were mapped to key drivers

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<thead>
<tr>
<th>Key Drivers</th>
<th>Interventions / Countermeasures</th>
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<tbody>
<tr>
<td>Communicating report changes must be clear and easy</td>
<td>Enable multiple communication methods (phone, Voalte messaging, EPIC inbox) – Medium reliability</td>
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<tr>
<td>Urgent and non-urgent report changes must be mutually understood</td>
<td>Standardize communication process for urgent and non-urgent changes – Medium reliability</td>
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<tr>
<td>Knowing who to contact must be easy to find</td>
<td>Interdisciplinary conferences to review cases with report changes – Low reliability</td>
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<tr>
<td>Determining whether a report is a finalized must be obvious</td>
<td>Reading Room Assistants to use Voalte to identify ordering/covering provider – Medium reliability</td>
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<td>Reading Room Assistant phone listed on the report to reduce friction for ordering providers – High reliability</td>
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<td>Use the phrase “Study Status – Final” on the top of a finalized report in Epic – High reliability</td>
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Early results show promise for broadening implementation

Communication of urgent discrepancies on cross-sectional exams increased to 90.6% percent

Communication of all discrepancies (including non-urgent and plain films) did not increase
Collaboration between departments increases trust

Key Learning Points

• Hospital technology infrastructure should be designed to reduce communication barriers.
• Cross-departmental projects enable team members to understand problems from a unique perspective.
• Communication is highly dependent on individual preferences and not necessarily improved with additional communication methods.

Next Steps – Sustain Plan

Increase communication across all study types and urgency levels by:

• Developing a process for flagging report discrepancies without appropriate communication documentation at time of final signing.
• Operationalizing a definition for urgent and non-urgent report changes through regular multidisciplinary case review.
• Incorporating review of communication errors into division-wide and resident-specific Peer Learning.
Thank You

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