A Straightforward Solution to a Complex Problem: Communication of Critical Findings From Radiology to the Emergency Room

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Define the client and what do they value

- Neuroradiology
- ER
- Speed of communication

Measure: what is the value and how do we measure it?

- Number of phone calls
- Imaging report turnaround time
- ER patient turnaround time
Analyze the deviations or defects

- Telephone is the principal method of communication
- Calls interrupt daily work activities

Improve or eliminate the defects

- Develop a communication workflow circumventing the calls
  - Easily implementable
  - User friendly
Research solutions

- Structured interviews were conducted with the neuroradiologists and ER physicians
  - Purpose of the phone calls
  - Number of phone calls
  - Satisfaction
  - Alternative solutions
Evidence for a list of critical findings

Interviews were repeated

Triage dashboard in the ER

Prototype software was tested

Short satisfaction survey
Interviews with clinicians

- Differentiation between acute/“critical” versus non-acute/“non-critical” -> most important reason for phone calls
- Noncontrast computer tomography (CT) head
- “Critical” findings were: intracranial bleeding, fracture, tumor, infarct, and hydrocephalus
- 80% prefer shorter reports
- Visualization of the acuteness on a radiologic triage dashboard located on large monitor in the ER
Pilot project implementation

Department of Radiology: exam results

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PACS Notification System

Vielen Dank für Ihre Aufmerksamkeit

Befundstatus
- geschrieben
- gelesen
- gegengelesen
- freigegeben

Befunddaten
- Schreiber: SCHNO
- Diktierer: SCHNO
- Leser: SCHNO
- Gegenleser: SCHNO
- Freigabe: BLAKR

Ergebnisbewertung:
- Critical Finding (CF)
- NO Critical Finding (NCF)
- Leer lassen (L)

Speichern
Abbrechen
Results communication

- For green cases, the phone call would be eliminated
- For red cases, the phone call would remain
- Test phase: 4 weeks

Improvements

- 1629 phone calls - equivalent to 43% of the phone calls - were eliminated