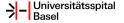


A Straightforward Solution to a Complex Problem: Communication of Critical Findings From Radiology to the Emergency Room

N. Schmidt, K. Blackham



Define the client and what do they value

- Neuroradiology
- ER
- Speed of communication

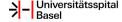
Measure: what is the value and how do we measure it?

- 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 elimate 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

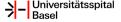


Literature search

Evidence for a list of critical findings

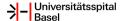
Pilot project development

- Interviews were repeated
- Triage dashboard in the ER
- Prototype software was tested
- Short satisfaction survey



Interviews with clinicians

- differentiation between acute/"critical" versus nonacute/"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

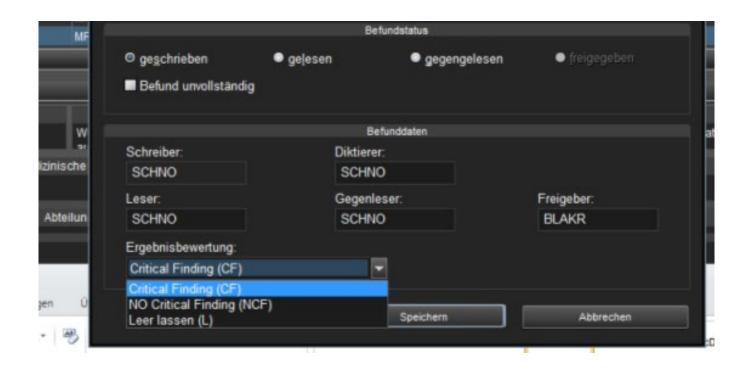


Pilot project implementation

Department of Radiology: exam results

Name	First name	DOB	Exam result	Exam status	Type of exam	Start time
			\otimes	non-final report	CT head & spine	
			Ø	non-final report	CT head	
			\otimes	final report	CT head & spine	
			×	final report	CT head & spine	
			Ø	final report	CT head	
			\otimes	final report	CT head	
			Ø	final report	CT head & spine	

PACS Notification System



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

