



Patterns of Error in Emergency Radiology



Fausto Labruto
Associate Professor
Director of Emergency Radiology



Patterns of Error in Emergency Radiology

l. Missing

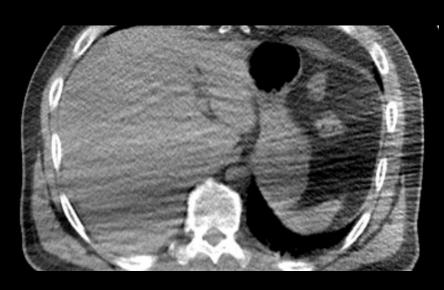
II. Misinterpreting

III. Miscommunicating

Missing

- Suboptimal images
- Overlooked projections
- Failed image processing
- Disruption of search pattern
- "Forgetting that a pathology exists"

Suboptimal images



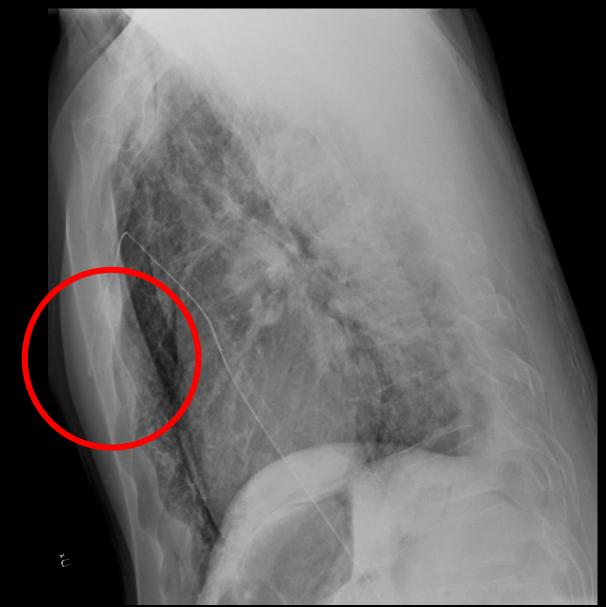






Overlooked projections

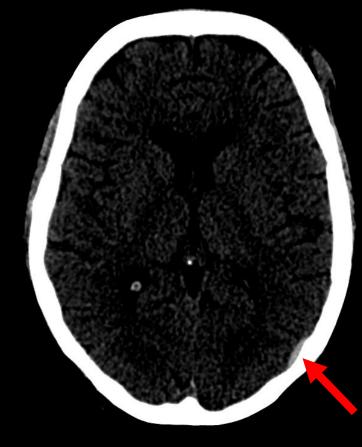




Failure at image processing



C = 40, W = 80

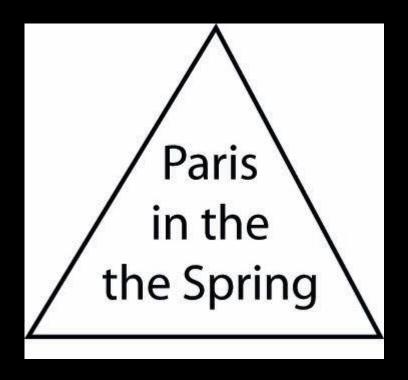


C = 70, W = 90

Disruption of Search Pattern



Distractions



Satisfaction of Search

Forgetting that a pathology exists





Patterns of Error in Emergency Radiology

l. Missing

II. Misinterpreting

III. Miscommunicating

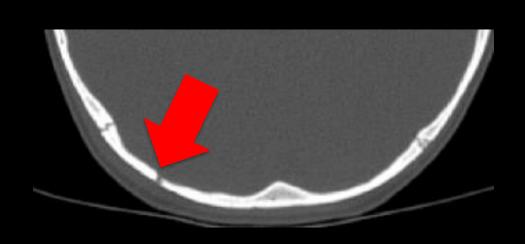
Misinterpreting

• Misinterpeting normal for pathological (or viceversa)

Misinterpreting a pathology for another pathology

Underestimating / overestimating the seriousness of a finding

Misinterpreting





Misinterpreting





Underestimating / overestimating the severity of a pathological finding



Patterns of Error in Emergency Radiology

l. Missing

II. Misinterpreting

III. Miscommunicating

Miscommunicating

Verbal

Report

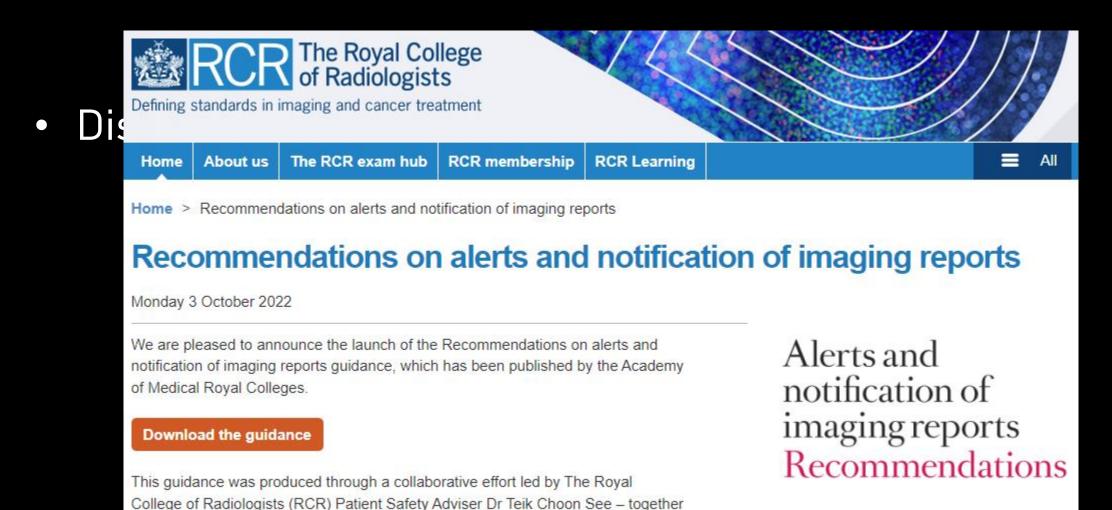
Failure to contact the clinician for critical findings

• Discrepancies verbal vs report

- Too long / too short
- Too complicated
 - Obscure language (abbreviations)
 - Elaborated descriptions
 - Too many differentials
 - Messy
- Language errors
 - VR mistakes
 - L-R mistakes
 - Grammatical errors
 - Typos
- Discussing uncertainties

Verbal

Failure to contact the clinician for critical findings



Verbal

Failure to contact the clinician for critical findings

Discrepancies verbal vs report

Documentation is key

Too long / too short

Less is more

- Too complicated
 - Obscure language
 - Elaborated descriptions
 - Too many differentials
 - Messy

Adapt to the language of the receiver

- Language errors
- VR mistakes
- L-R mistakes
- Grammatical errors
- Typos

Proof-read all your reports

Discussing uncertainties

When facing an uncertain finding:

Be honest about the uncertainty

Concisely explain your doubts

Suggest the next step

Conclusions

Miscommunications can happen because of:

- Workflow errors in giving a verbal
- Using a language which does not adapt to the receiver
- Using language to hide our uncertainties

Thank you!



fausto.labruto@unilabs.com