

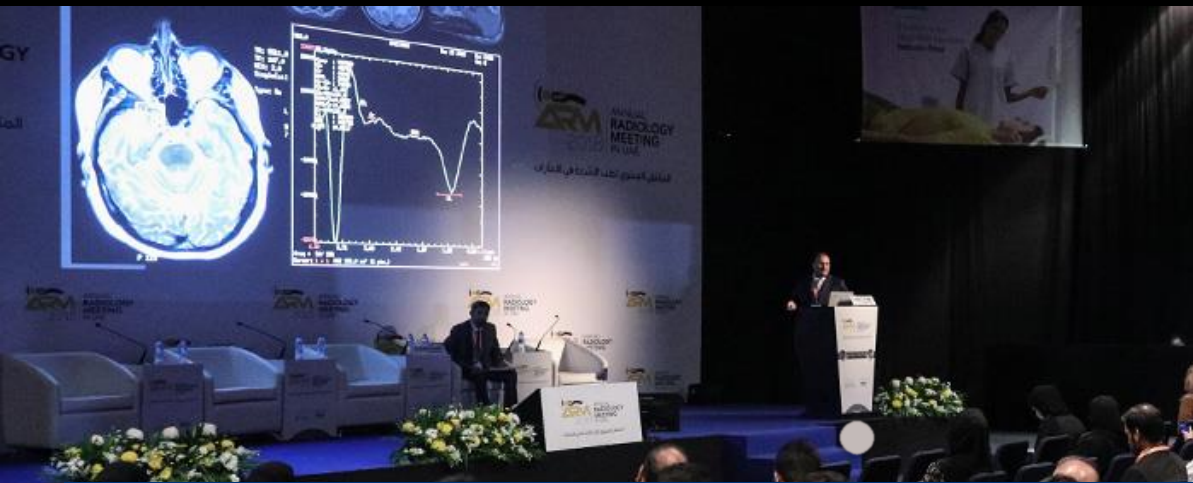


TRAUMA RADIOLOGY 2024

Patterns of Error in Trauma Radiology



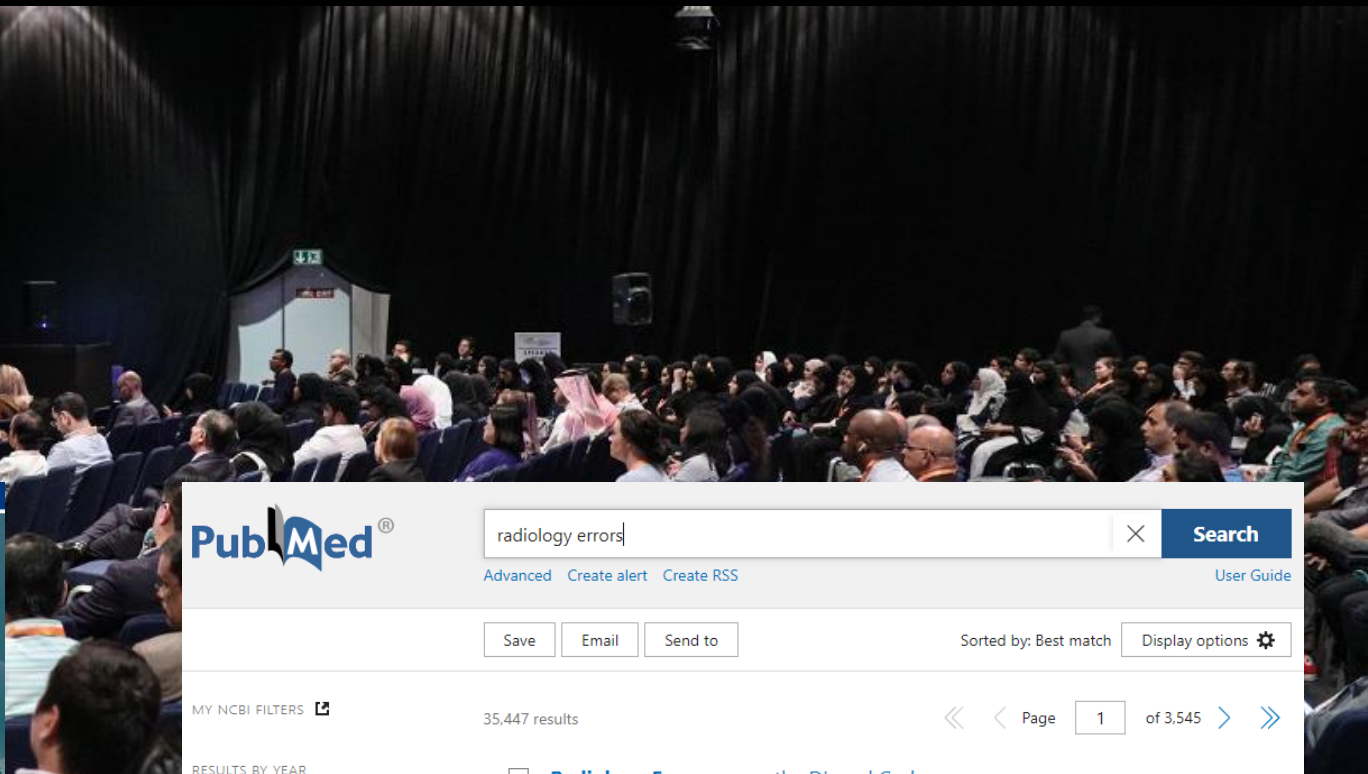
Fausto Labruto
Associate Professor
Director of Emergency Radiology



ONE CASE – THREE LESSONS

Wednesday, June 14 in Auditorium 1 (17:00 – 18:00)

In this session each panellist shares a clinical case where they personally made a mistake and then develop the three lessons that they learned from this. The goal of this format is



PubMed®

radiology errors

Advanced Create alert Create RSS Search User Guide

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MY NCBI FILTERS 35,447 results Page 1 of 3,545

RESULTS BY YEAR

1900 2023

TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

ARTICLE ATTRIBUTE

- Associated data

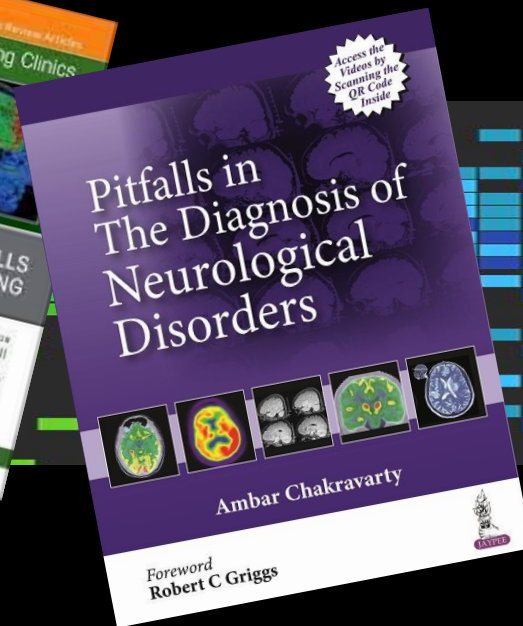
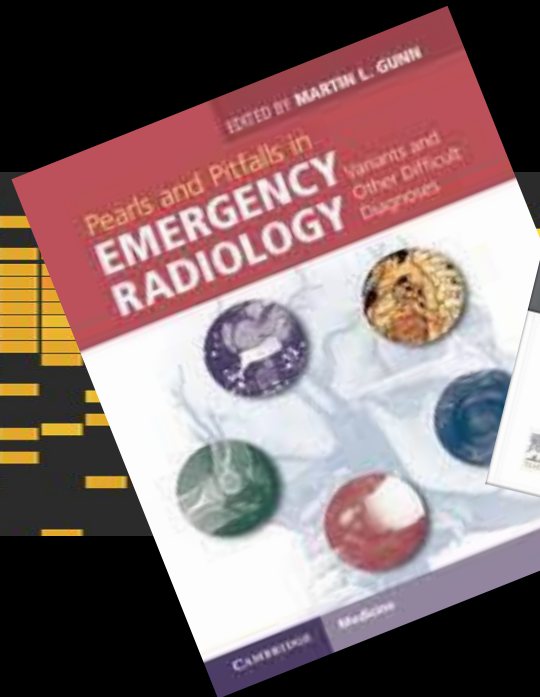
ARTICLE TYPE

- Books and Documents
- Clinical Trial

Radiology Errors across the Diurnal Cycle.
1 Bruno MA.
Cite Radiology. 2020 Nov;297(2):380-381. doi: 10.1148/radiol.2020202902. Epub 2020 Aug 18. PMID: 32813599 No abstract available.
Share

Perceptual errors in pediatric radiology.
2 Taylor GA.
Cite Diagnosis (Berl). 2017 Sep 26;4(3):141-147. doi: 10.1515/dx-2017-0001. PMID: 29536929 Free article. Review.
Share Perceptual **errors** are common contributors to missed diagnoses in the clinical practice of radiology. ...A second cognitive **error** is inattentional blindness, defined as the failure to notice a fully visible, but unexpected object because attention was otherwise ...

The radiology impact of healthcare **errors** during shift work.
3 Elliott J, Williamson K.
Cite Radiography (Lond). 2020 Aug;26(3):248-253. doi: 10.1016/j.radi.2019.12.007. Epub 2019 Dec 26. PMID: 32052756 Review.
Share OBJECTIVES: What are the risks of **error** as a result of out-of-hours work in health care that could be attributed to Shift Work Disorder; and what safety implications would this have for radiographers working with ionising radiation? ...CONCLUSION: Four of the five studies ...





Missing

Not identifying the finding
(perceptual error)



False negative

Misinterpreting

Identifying the finding,
but assigning the wrong
value to it



False negative
or false positive

External
factors

Internal
patterns

Disruption

Interruption

Cognitive
Biases

Disruption / interruption of work Pattern



Open access **Original research**
BMJ Open Quality **Quantifying disruption of workflow by phone calls to the neuroradiology reading room**

Shyam Sabat, Paul Kalapos, Einat Slonimsky

Abstract The purpose of this study was to understand the source and the reason for the phone calls to our neuroradiology reading room and to quantify the size of the problem in terms of duration of individual and aggregated calls.

Introduction The purpose of this study was to understand the source and the reason for the phone calls to our neuroradiology reading room and to quantify the size of the problem in terms of duration of individual and aggregated calls.

Materials and methods Observation of the neuroradiology reading room for three non-consecutive days or 12 hours. All phone calls to the reading room were recorded, and the duration of each call was noted. The average total number of phone calls per day was 10. The average total number of phone calls per day was 10. The average total number of phone calls per day was 10.

Results The average total number of phone calls per day was 10. The average total number of phone calls per day was 10. The average total number of phone calls per day was 10.

Conclusion The average total number of phone calls per day was 10. The average total number of phone calls per day was 10. The average total number of phone calls per day was 10.

Keywords Disruption, Interruption, Diagnostic accuracy, Patient safety.

Do Telephone Call Interruptions Have an Impact on Radiology Resident Diagnostic Accuracy?

Brad J. Balint, BS, Scott D. Steenburg, MD, Hongbu Lin, MS, Changyu Shen, PhD, Jennifer L. Steele, MS, Richard B. Gundenman, MD, PhD

Background and Objectives: The purpose of this study was to measure the effect of interruptions, in the form of telephone call interruptions, on the diagnostic accuracy of radiology residents.

Methods and Results: Radiology residents were recruited from a single academic radiology department. Residents were assigned to read a set of 10 cases, each with a telephone call interruption. The number of correct diagnoses was recorded. Interruptions were found to have a significant negative impact on diagnostic accuracy.

Conclusion: Interruptions in the form of telephone call interruptions have a significant negative impact on radiology resident diagnostic accuracy.



Incomplete search pattern



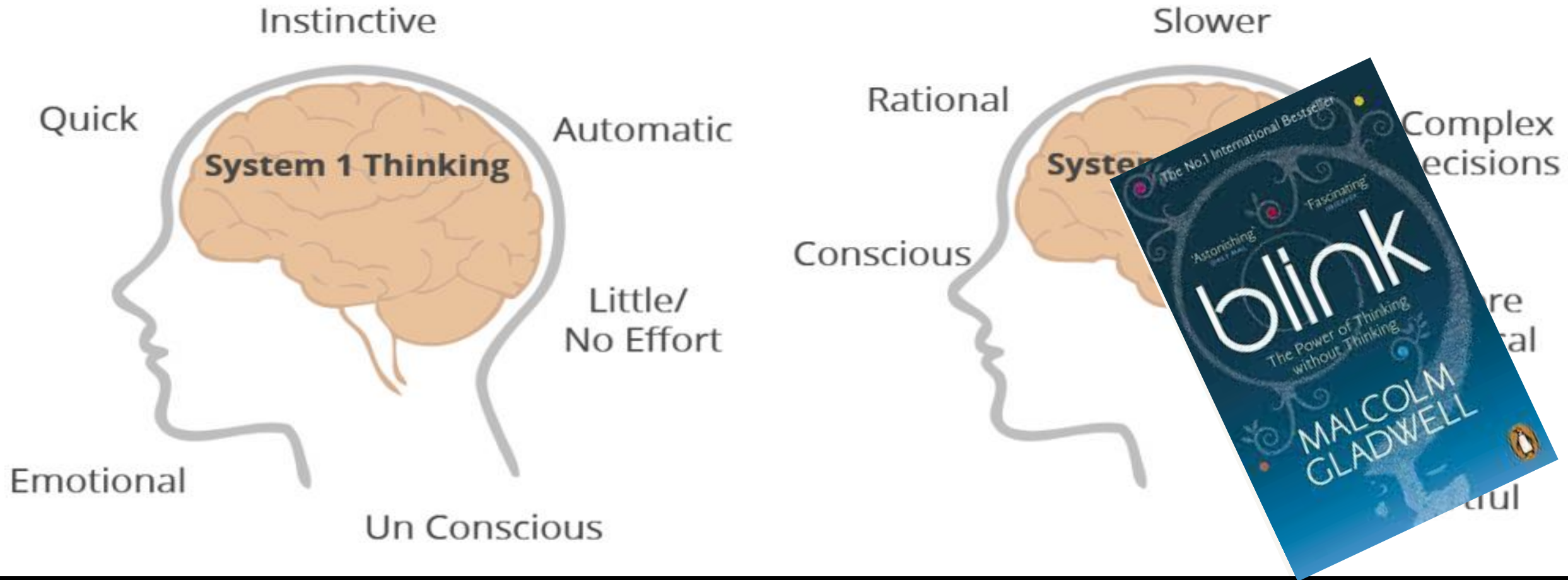
Costochondral Fractures

Disruption of Search Pattern



Satisfaction of Search

DANIEL KAHNEMAN'S SYSTEMS OF THINKING



Heuristics:

A mental shortcut that allows rapid problem-solving based on assumptions and past experiences

Metacognition:

Awareness and understanding of one's own thought process

Heuristics

Confidence

More prone to
cognitive bias

Metacognition

Awareness of own
strengths and weaknesses

Less prone to
cognitive bias

Cognitive Bias

**Availability
Bias**

Regret Bias

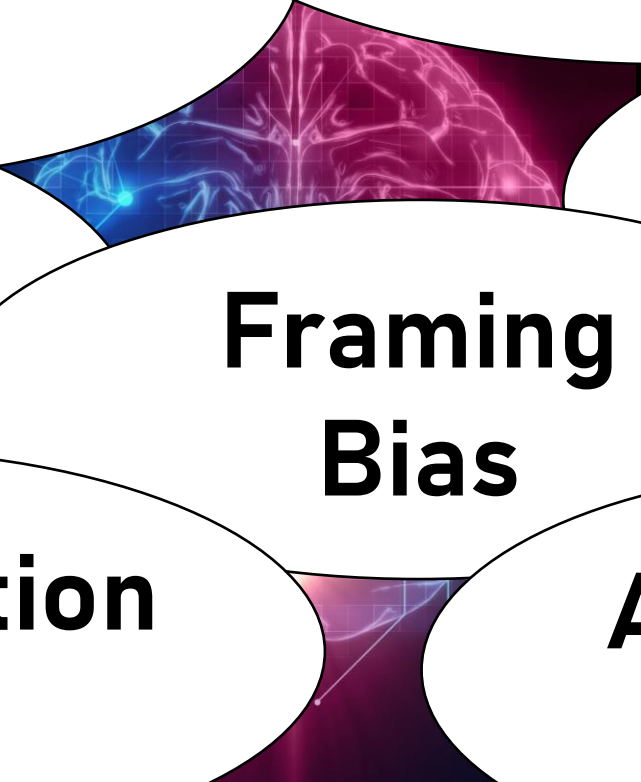
**Anchoring
Bias**

**Alliterative
Bias**

**Framing
Bias**

**Confirmation
Bias**

**Attribution
Bias**



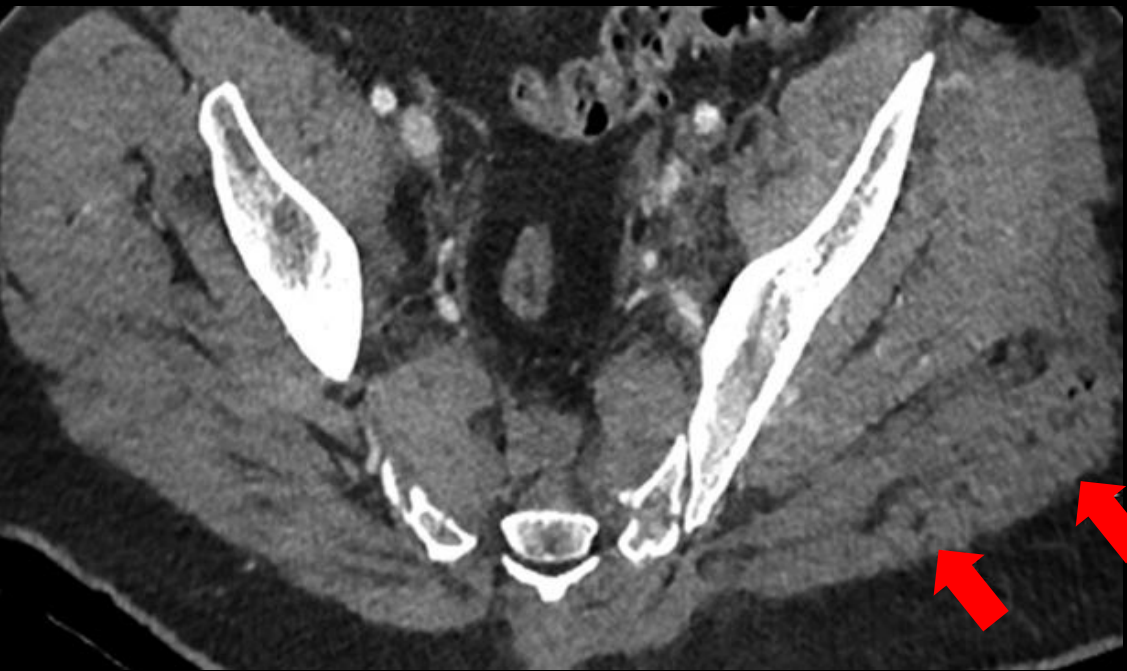
Availability Bias

The assessment is influenced by easily-recalled experiences



LATER THAT WEEK...





Morrel-Lavallé Lesion



Mimic

BRITISH AIRWAYS

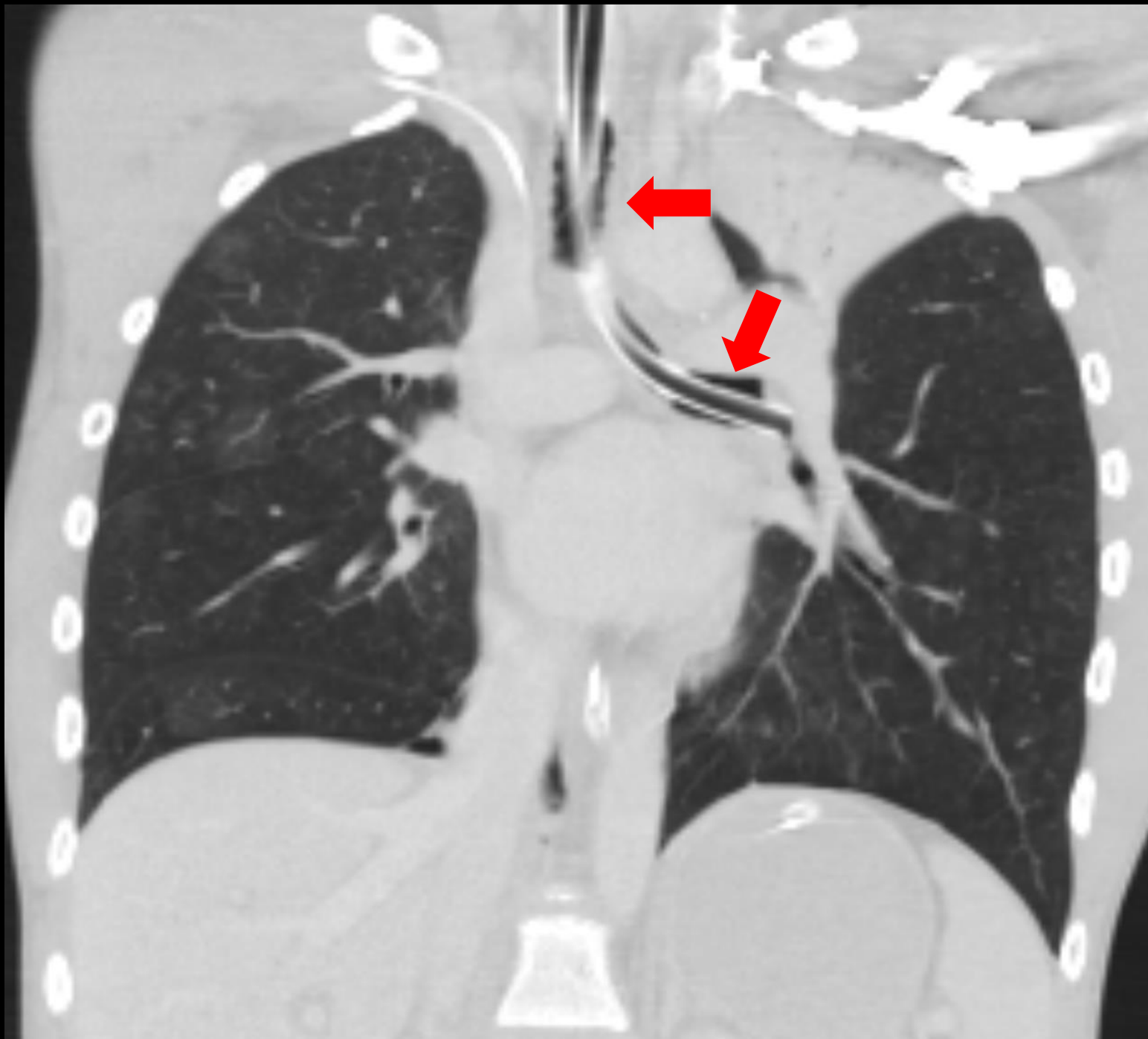


Fly to London this Summer!



Anchoring Bias

An initial impression influences the following evaluation



BRITISH AIRWAYS

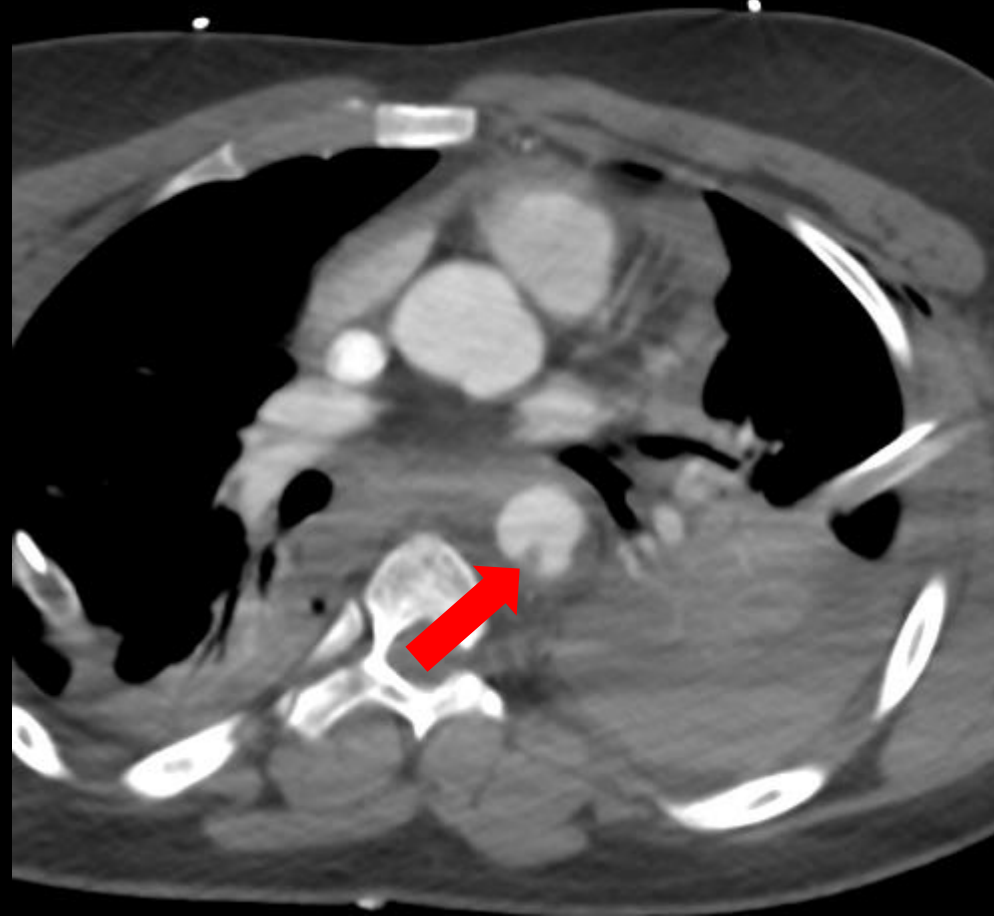
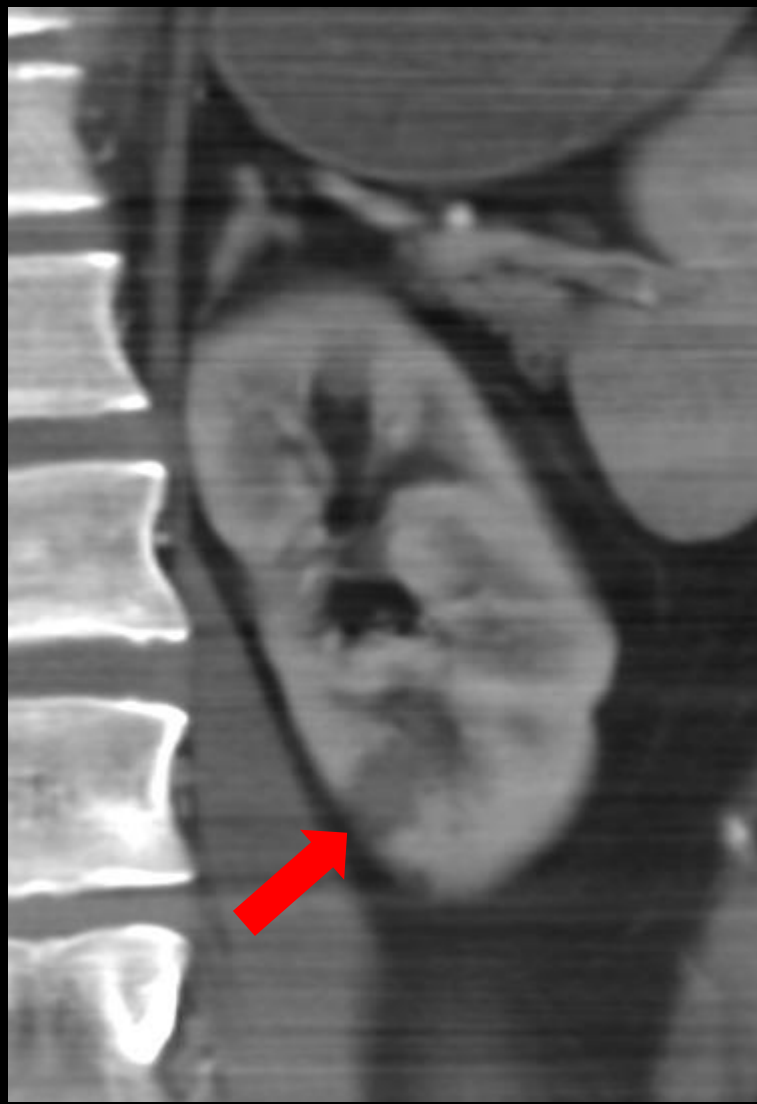
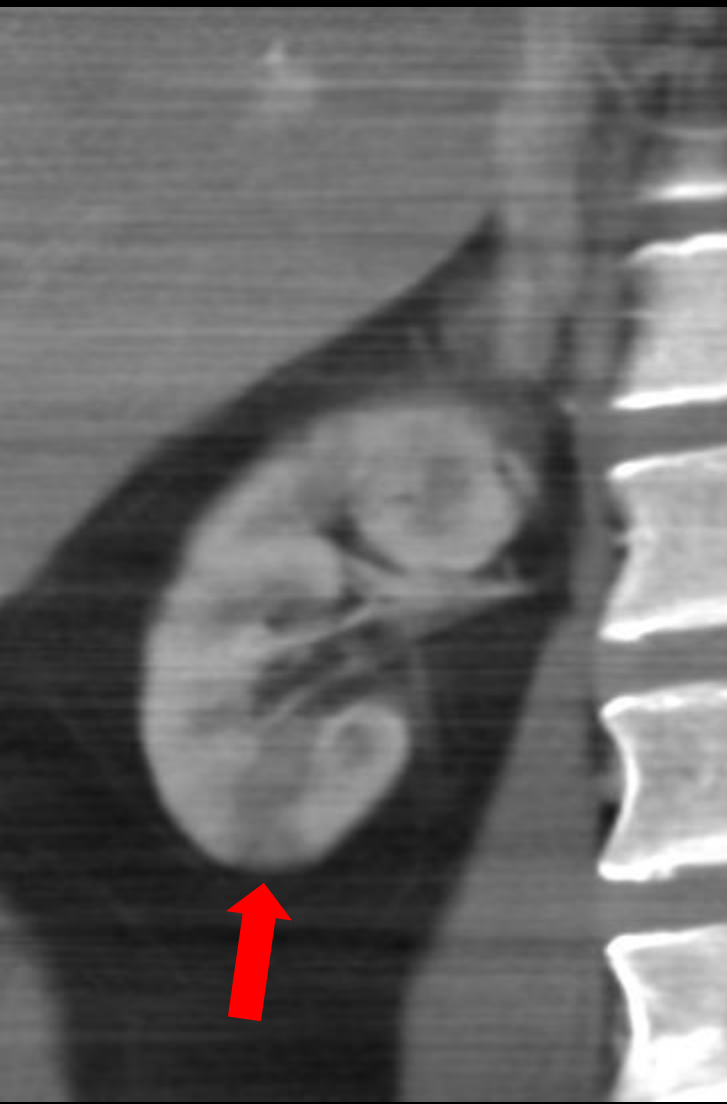


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Confirmation Bias

Registering only the information which confirms the initial impression

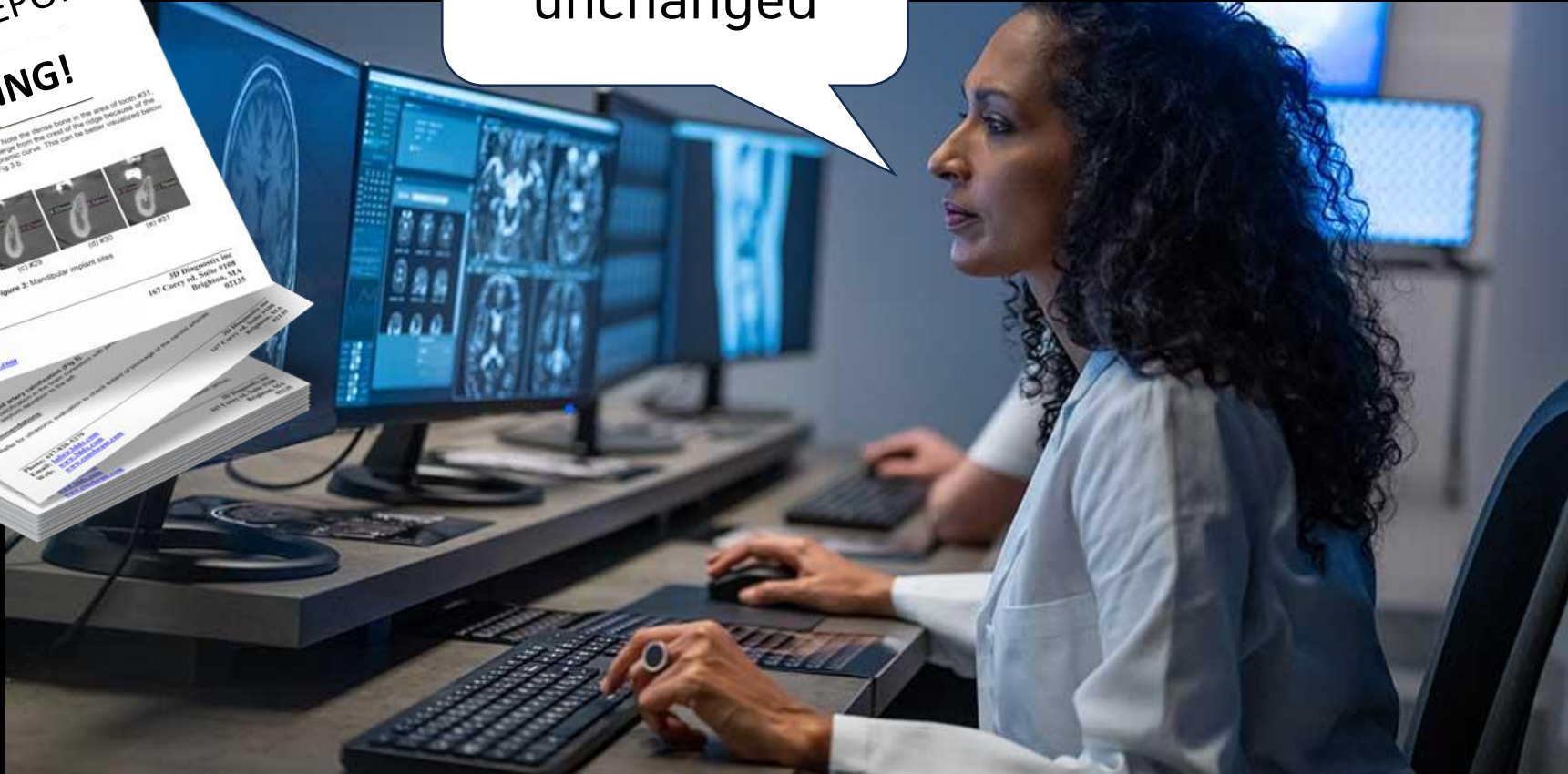


Alliterative Bias

One radiologist's judgement influences another radiologist



The bleeding is unchanged





Framing Bias

The judgment is influenced by how the query is posed

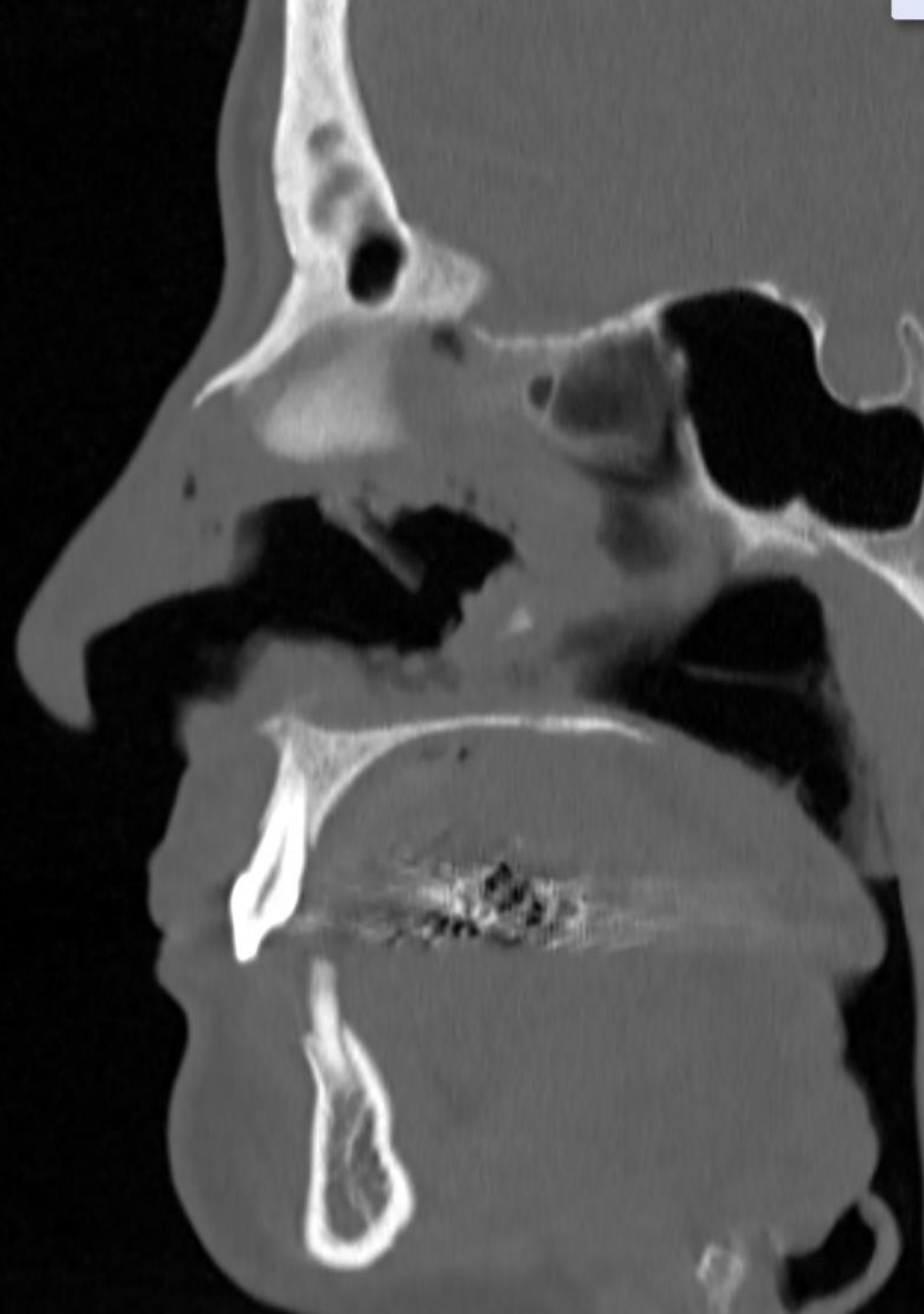




Attribution Bias

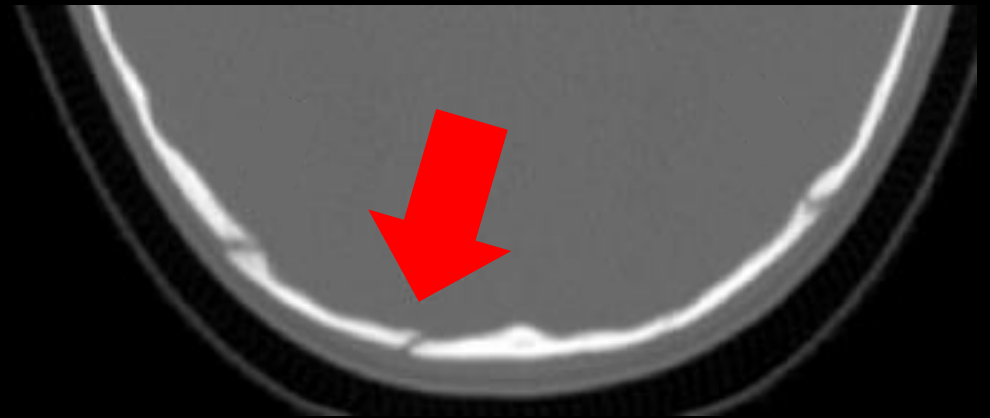
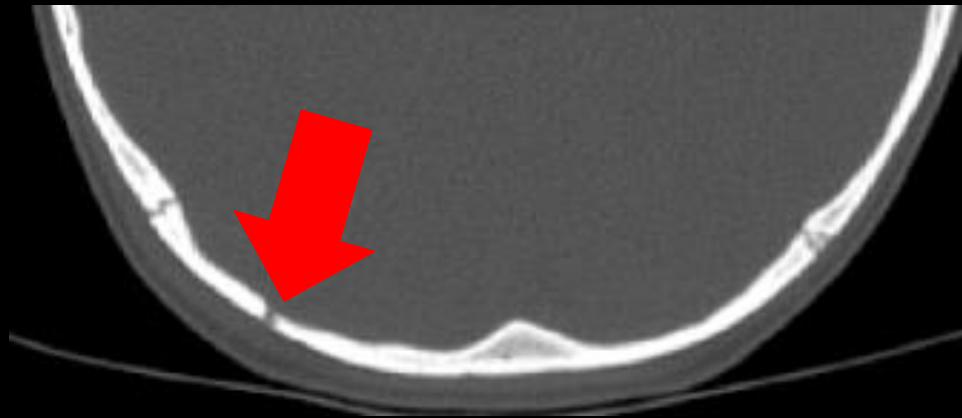
Characteristics are attributed to a case because of the category the patient belongs to





Regret Bias

Overestimating the likelihood of a diagnosis fearing the risk of missing it



Miscommunicating

Verbal report:

Because your written word may not be enough!



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Defining standards in imaging and cancer treatment

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All

[Home](#) > Recommendations on alerts and notification of imaging reports

Recommendations on alerts and notification of imaging reports

Monday 3 October 2022

We are pleased to announce the launch of the Recommendations on alerts and notification of imaging reports guidance, which has been published by the Academy of Medical Royal Colleges.

[Download the guidance](#)

This guidance was produced through a collaborative effort led by The Royal College of Radiologists (RCR) Patient Safety Adviser Dr Teik Choon See – together

Alerts and
notification of
imaging reports
Recommendations

Miscommunicating

How to handle uncertainties



"May your answers be just "yes" or "no", and do not try to explain the "yes" and the "no", because every explanation is a capitulation"

Julien Benda

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