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Learning from claims London and South virtual forum – Missed Fractures

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Learning from claims London and South virtual forum – missed fractures

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Housekeeping rules:

- **Please have your microphones on mute**
- **Please feel free to put comments and questions in the chat box**
- **Chatham house rule**

Welcome to today's missed fractures programme:

Learning from Claims
Missed Fractures

Date: Thursday 9th September 2021
Time: 12.30 – 13.30
Eventbrite link here:
https://www.eventbrite.co.uk/e/163981455949

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London and South learning forum for managers and clinicians:
Missed Fractures

NHS Resolution's Safety and Learning team is sharing our data and learning insights on missed fractures claims to support improvements in safety and experience. Working in partnership with a range of experts in the topic area to help spread best practice.

Our claims insights will highlight common risk themes we have observed regionally as well as sharing solutions as to how some of the risks have been reduced by making systemic and systematic changes. The format is interactive and our experts are a combination of providers, commissioners, patient safety leads and policy makers.

Missed fractures programme:

- Value and volume of falls claims for NHS providers in London and the South regions
- National and regional initiatives.
- Case stories – highlighting common learning themes.

Contributors:
Dr Robin Evans, Consultant Radiologist
Dr Taj Hassan, Consultant in Emergency Medicine
Richard Evans, Chief Executive, Society of Radiographers
Tim Shurlock, Safety & Learning Lead, NHS Resolution

How to access the forum

Registration is via Eventbrite portal. This virtual forum will be hosted on Microsoft Teams once you have registered and the invitation can be downloaded to your electronic calendar.

You will need:

- a laptop or tablet with a working webcam
- to check that all equipment and broadband is in working order prior to the forum
- a quiet environment where you are unlikely to be disrupted for 60 minutes

Please avoid:

Please do not record the forum. This is in line with GDPR guidance, and encourages open discussion. Future forum dates and topics:

DATE	TOPIC
14/10/2021	Hospital Acquired Pressure Ulcers
11/11/2021	CNSGP
02/12/2021	Diabetes – Lower Limb Complications
TBC	Medication Errors
TBC	Extravasation
TBC	Assaults

Format: interactive

Duration: 60 minutes

Guest speakers:

Richard Evans – Chief Executive Officer,
The Society of Radiographers

Dr Taj Hassan – Consultant, Emergency Medicine, Leeds Teaching Hospitals
Chair & Co-Lead - Leeds Emergency Medicine Research Group
Director of CAILTEC (Centre for AI Learning & Technological integration in Emergency Care)

European Lead on Board, International Federation of Emergency Medicine (IFEM)
Immediate Past President, Royal College of Emergency Medicine

Dr Robin Evans – Consultant Radiologist, Croydon Health Services NHS Trust

Clinical Director and GMC Responsible Officer, Everlight Radiology (an independent sector provider of radiology reporting services to the NHS)

Missed Fracture claims*

78

Claims settled with damages paid

£1.1 million

Total cost of settled claims

£14,346 per claim (mean value)

*Selection taken from cohort of Emergency Medicine claims, identified as missed fractures, settled with damages paid, with incident date between 2015/16-2017/18

Summary of Findings
(Full report will be published at www.resolution.nhs.uk)

- In around 1/3 of cases an early (incorrect) diagnosis of a soft tissue was made, meaning that the fracture diagnostic pathway (including imaging) was not completed, and no fracture detected.
- Errors occurred throughout the fracture diagnostic pathway, particularly in EM clinician interpretation of imaging, Clinical Examination and, Correct Xray being requested.
- Most cases reviewed were minor injuries but there was a subset (25%) of major injuries, namely hip fractures.
- For the majority of cases the most significant harm was a period of pain/distress until the fracture was eventually diagnosed and managed, but in some cases harm was more significant and long standing.

Learning from claims – missed fractures
London and South virtual forum

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Learning from claims – missed fractures

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Richard Evans

Chief Executive Officer

The Society and College of Radiographers

@NHSresolution

Missed Fractures: You have the answer

Richard Evans

Chief Executive Officer

The Society of Radiographers

The answer is “Radiographers”

- If the ED has a staffed x-ray room or access to the Imaging Department, there is an expert to help interpret radiographs
- In an ideal world, every image would be “hot reported” so that ED staff have the definitive opinion immediately
- This should be the goal
- Train Advanced Clinical Radiography Practitioners
- Train all ED radiographers to comment
- Ask

William Frederick Yeames - And when did you last see your father? - Google Art Project

Case Study: South Tyneside

All patients undergoing imaging procedures deserve focused attention from a professional with specialist training working within a comprehensive framework of governance

Roles are defined by how the team is trained, managed and governed not by historical precedent

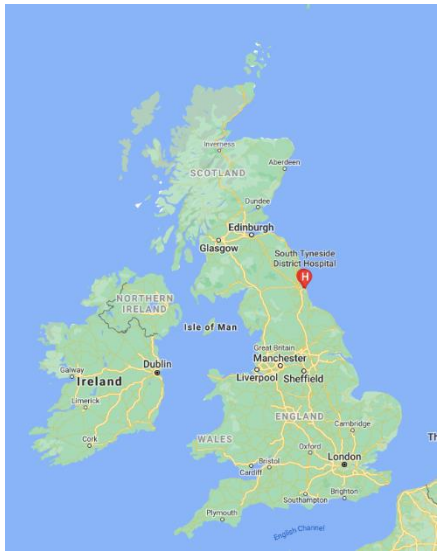
Case Study: South Tyneside

- Recognised problem in 2002
- Audit showed Missed Fracture Rate at 7.2%
- Radiography Reporters introduced (3)
- Hot reports whenever possible
- Radiography Reporters trained all ED radiographers to comment: “Preliminary Clinical Evaluation”
- Monthly audit of radiographers’ results

Case Study: South Tyneside

Results

- After first year Missed Fracture Rate reduced to under 2%
- Study in 2009 showed rate of 0.7%. This has been maintained
- Audit results for non reporting radiographers show average sensitivities did not drop below 90% and specificities did not fall below 96%



Other Models?

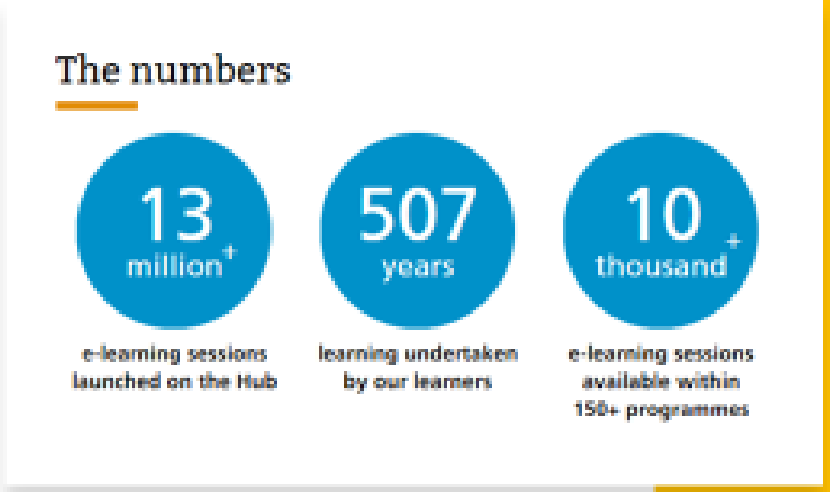
- Telereporting
- Teleporting

McCoy, Kirk and Spock in the transporter room.png| Wikimedia

Resources

e-Learning for Healthcare (e-LfH)

- Part of Health Education England, works with professional bodies, including the College of Radiographers
- Develop and deliver e-learning free to NHS workforce
- Can be accessed on mobile, tablet or desktop 24/7
- Quality assured and written by subject matter experts



Resources

The e-LfH Hub

- An e-learning platform designed specifically for our users:
  - Easy to launch content
  - Easy to share content with peers/trainees
  - Easy to show evidence of learning

- Available via:
  - Electronic Staff Record
  - Open Athens
  - Some locally managed services

Resources

Clinical Imaging

- Provides a structured syllabus
- Designed to equip radiographers with skills and knowledge to provide preliminary clinical evaluations
- Enhance everyday working
- Support staff in specialisms and prepare radiographers prior to specialising
- Available for all health professionals, students and lecturers
- **Register for an e-LfH account at https://portal.e-lfh.org.uk/Register**

Missed Fractures

richarde@sor.org

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Dr Taj Hassan

Consultant, Emergency Medicine, Leeds Teaching Hospitals
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Missed fractures in the ED

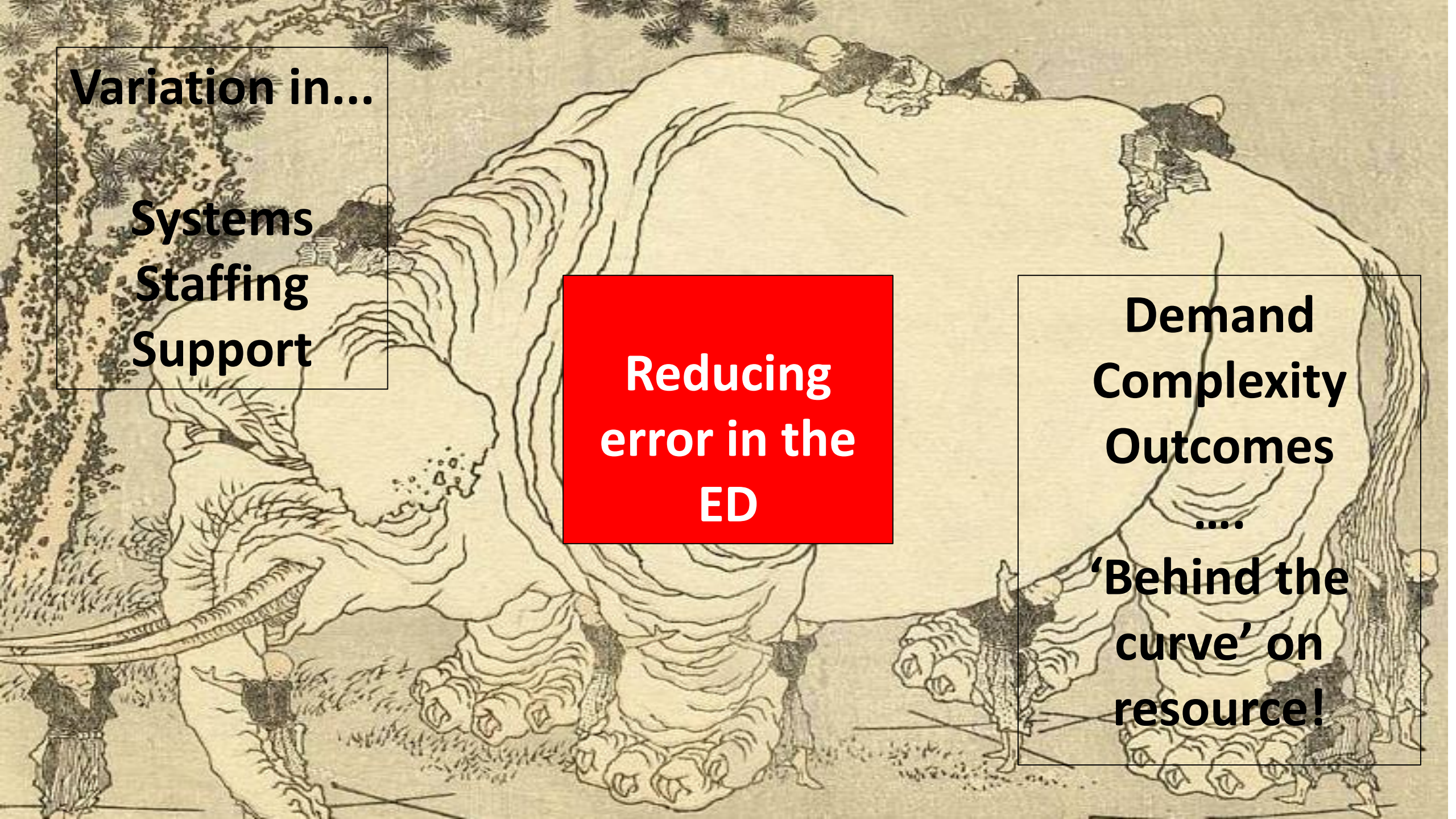
Is it possible to reduce error in such environments?

Dr Taj Hassan

Cons EM, Leeds Teaching Hospitals.

Immed Past President, RCEM

- Scale
- Systems
- Solutions


Variation in...
Systems
Staffing
Support
Reducing error in the ED
Demand
Complexity
Outcomes
....
'Behind the curve' on resource!

Teaching clinical judgment and decision making in a dynamic ED setting.

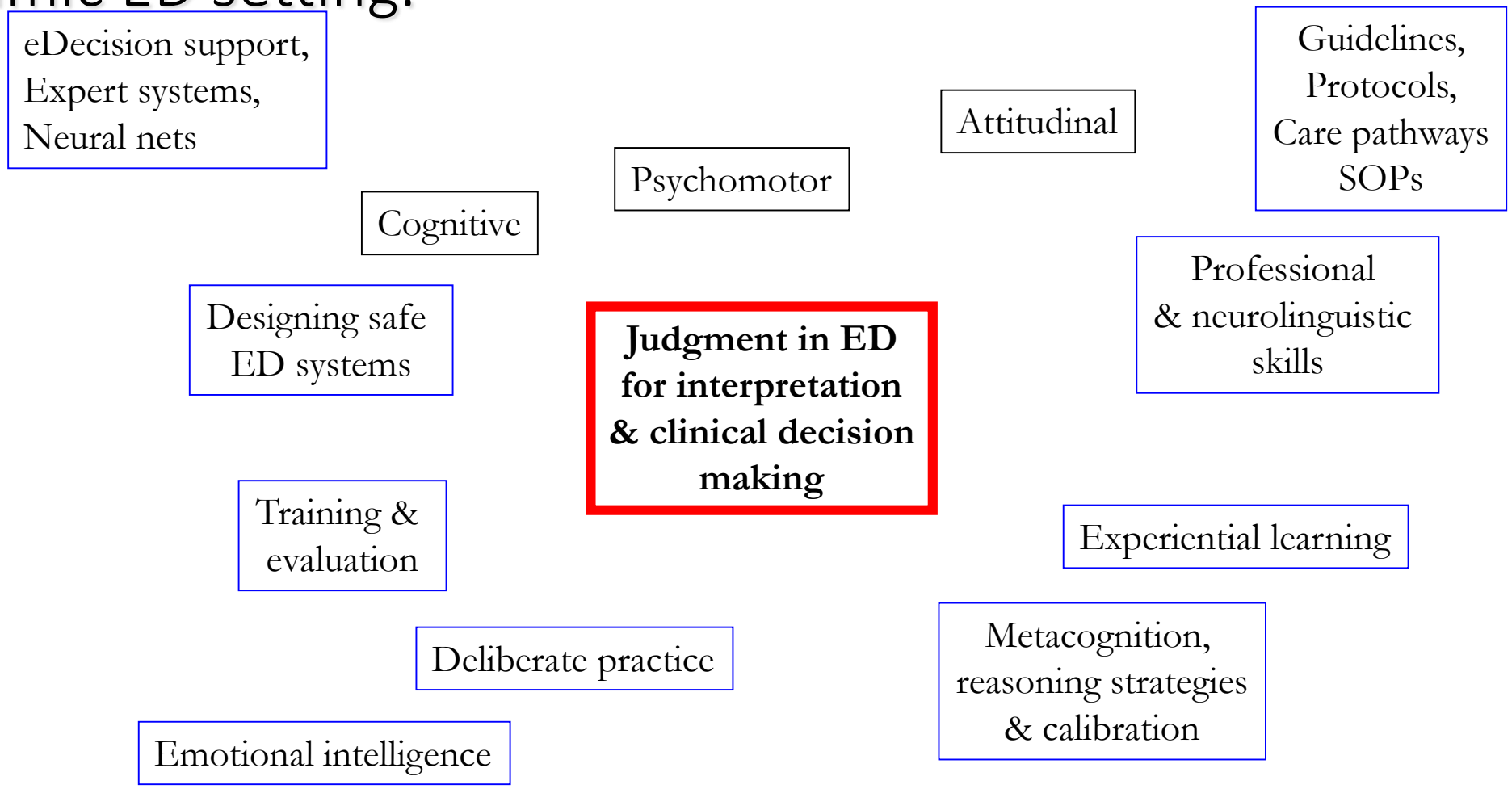
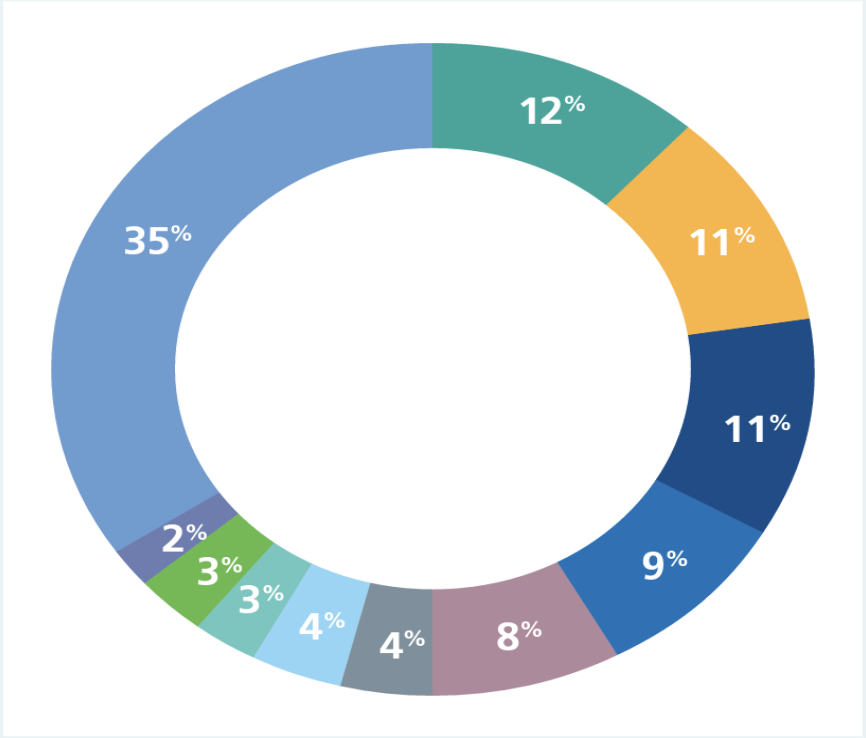
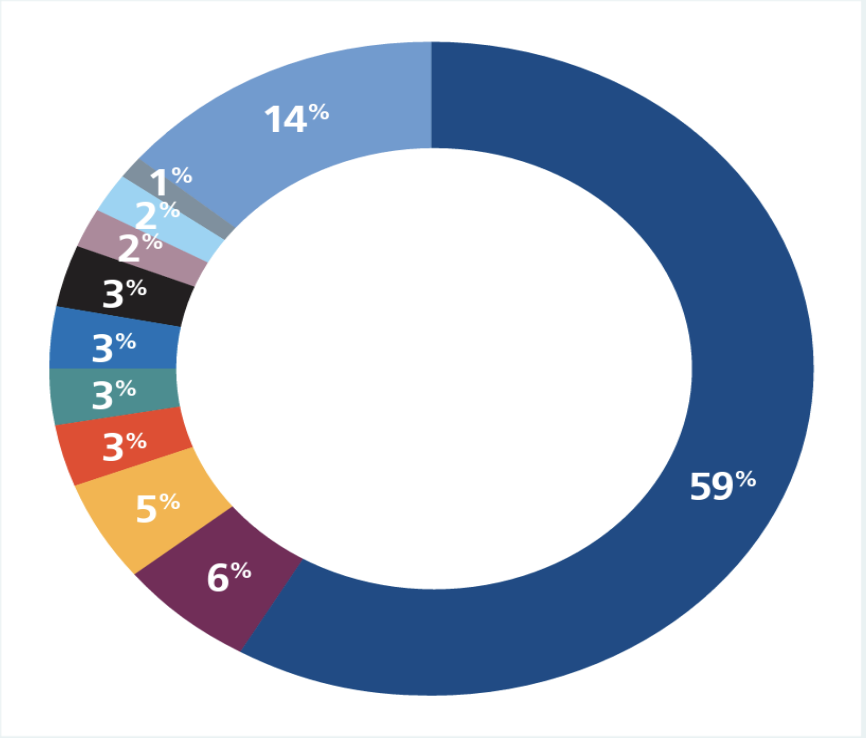


Figure 9: The number of clinical negligence claims reported in 2020/21 by specialty from a total of 10,816[1]



Orthopaedic surgery	12%	General medicine	4%		
Emergency medicine	11%	Radiology	4%		
Obstetrics	11%	Psychiatry/mental health	3%		
• Early Notification	2%	Urology	3%		
• Non-Early Notification	9%	Gastroenterology	2%		
Gynaecology	9%	Other	35%		
General surgery	8%				

Figure 10: Value of clinical negligence claims reported in 2020/21 by specialty across all clinical negligence schemes from a total of £7,113.8 million



Obstetrics	59%	Gynaecology	3%		
• Early Notification	27%	Neurosurgery	3%		
• Non-Early Notification	32%	General surgery	2%		
Paediatrics	6%	Radiology	2%		
Emergency medicine	5%	Neurology	1%		
Neonatology	3%	Other	14%		
Orthopaedic surgery	3%				

Solutions

- Education
- Human factors engineering / workflow integration
- Technological support

Education

Osmosis

Didactic

Blended learning

Formative assessment

Process engineering

Interpretation

Reporting

Review systems, feedback and timely response

Technological support

Original Investigation | **Imaging**

October 9, 2020

Comparison of Chest Radiograph Interpretations by Artificial Intelligence Algorithm vs Radiology Residents

Joy T. Wu, MBChB, MPH[1]; Ken C. L. Wong, PhD[1]; Yaniv Gur, PhD[1]; et al

» Author Affiliations | Article Information

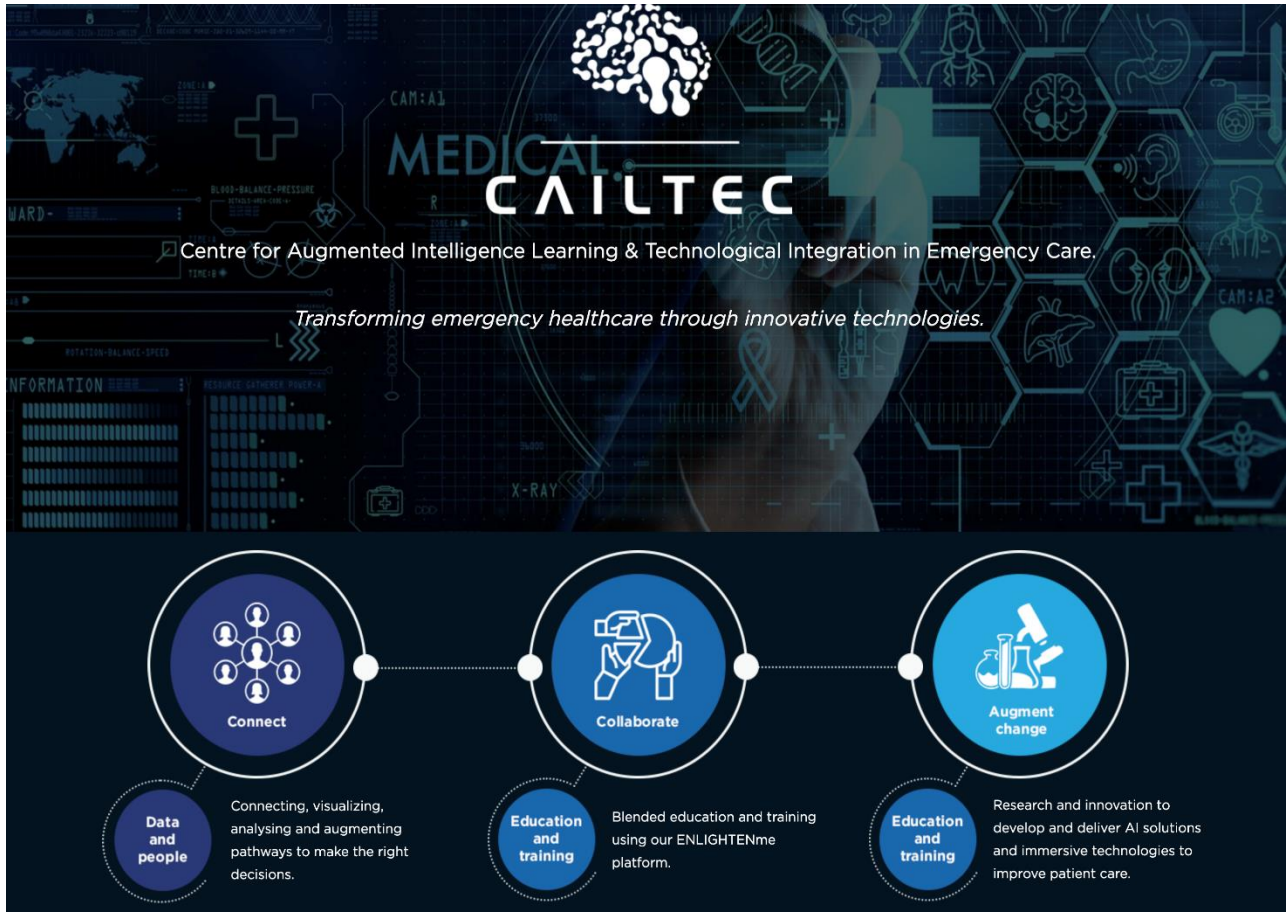
JAMA Netw Open. 2020;3(10):e2022779. doi:10.1001/jamanetworkopen.2020.22779

Key Points

Question How does an artificial intelligence (AI) algorithm compare with radiology residents in full-fledged preliminary reads of anteroposterior (AP) frontal chest radiographs?

Findings This diagnostic study was conducted among 5 third-year radiology residents and an AI algorithm using a study data set of 1998 AP frontal chest radiographs assembled through a triple consensus with adjudication ground truth process covering more than 72 chest radiograph findings. There was no statistically significant difference in sensitivity between the AI algorithm and the radiology residents, but the specificity and positive predictive value were statistically higher for AI algorithm.

Meaning These findings suggest that well-trained AI algorithms can reach performance levels similar to radiology residents in covering the breadth of findings in AP frontal chest radiographs, which suggests there is the potential for the use of AI algorithms for preliminary interpretations of chest radiographs in radiology workflows to expedite radiology reads, address resource scarcity, improve overall accuracy, and reduce the cost of care.



Summary

Scale

Systems

Solutions

Learning from claims – missed fractures

NHS Resolution

Dr Robin Evans

Consultant Radiologist, Croydon Health Services NHS Trust

Clinical Director and GMC Responsible Officer, Everlight Radiology

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Missed fractures- A radiology perspective

Dr Robin Evans

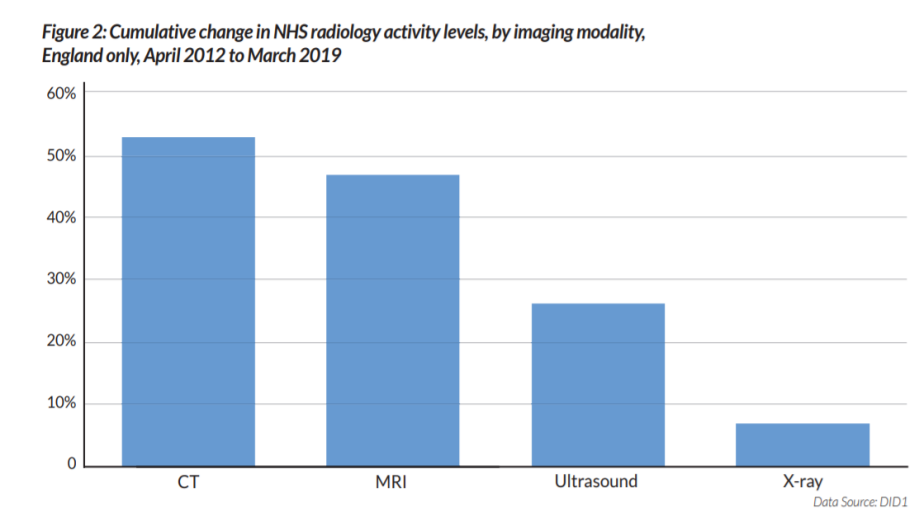
Consultant Radiologist, Croydon University Hospital

Clinical Director and Responsible Officer, Everlight Radiology

9th September 2021

Radiology challenges nationwide

- Relentless increasing demand and complexity in imaging
- Critical workforce shortfall
- Multiple demands:
  - Targets, targets – 4HW, Cancer, LOS etc.
  - National clinical guidance – NICE, Stroke, Trauma etc.
  - 7 day working (5/7→ 7/7 → 24/7)
  - Covid backlogs



2020 RCR Clinical Radiology workforce Census:

ED service challenges – a radiology view

- Heavy reliance on diagnostics
  - Rapid assessment of often complex cases
- Plain film
  - “Non expert” primary interpretation
  - Almost no 24/7 ‘hot’ reporting
  - Reporting delays in spite of huge success of radiographer reporting
- Teamworking
  - Huge increase in ED CT demand 24/7
  - Radiation protection
  - Poor clinical information with imaging requests
  - Limited MDTM’s
- Limited access to MRI OOH
- Complex imaging pathways
  - Results management and safety nets

Radiology reporting errors and discrepancies

- Pervasive and Inevitable - 2-10% clinically significant
- Commonly perceptual, but often multifactorial e.g. Communication
- Multiple biases: hindsight, outcome etc
- Little systematic peer review (“searching for errors”)
- *Review of errors and discrepancies MUST form the basis of blame free learning and system improvement*

Solutions and best practice in ED imaging

- Senior/specialist *clinical* assessment
- Radiology/ED MDT working
  - training, case review, learning from discrepancy/SI/litigation cases
- Agreed, applied and audited clinical protocols
  - including clinical fracture prediction rules
- Adequate clinical information with imaging requests
- Better use of MRI

The Royal College of Emergency Medicine

Best Practice Guideline

Management of Radiology Results in the Emergency Department

February 2016

The future

- Radiology networks and teleradiology
- Computer Aided Diagnosis/Artificial intelligence
- Expansion of Emergency Radiology subspecialty
  - Standard setting – protocols, training
  - Multidisciplinary training

Learning from claims – missed fractures

Tim Shurlock

Safety and Learning Lead

NHS Resolution

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Missed Fractures Case Stories

NHS Resolution

Case study 3. Fatality

An elderly patient attended ED following a fall at their care home. X-ray investigations were completed and reviewed by two EM clinicians who erroneously concluded that no fracture was present. In fact the patient had suffered a fractured neck of femur. The patient was discharged the following day. In the following five weeks the patient continued to attempt mobilisation resulting in excruciating pain. At this stage their GP reviewed the X-ray and identified the fracture. The patient was admitted to hospital under the care of Orthopaedics for a hemiarthroplasty. Sadly, shortly after this their health deteriorated and the patient died. Whilst this patient would have had significant morbidity and mortality risk factors following a fractured neck of femur in any event, it was recognised that the long delay in providing treatment had a significant impact on the outcome.

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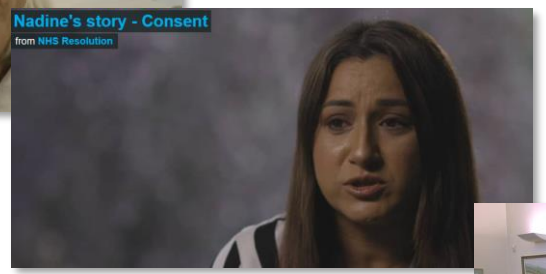
Summary - have we achieved our purpose?

- Sharing our data and learning insights on missed fractures claims
- Identifying service and quality improvements
- Learning new insights
- Safety@resolution.nhs.uk

A range of products for learning



Case story
Better joint working and specialist help benefits patients, families and the NHS

https://resolution.nhs.uk/resources/