## The Clinical Perspective

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#### Overview

- Background
- Clinical aspects
- Examples
  - Radiograph
  - Reports
  - Templates
- Benefit



#### Declaration

No conflict of interest to declare



- Imaging plays a central role in modern healthcare, with almost all patient pathways reliant on an effective and efficient service to improve patient experience and outcomes.
- Team working is fundamental to the delivery of a patient focused service.
- Of increasing importance given the sustained and significant increases in radiology activity, driven by new and emerging technologies, an ageing patient population with changing health needs, and a drive towards 7-day working. Chronic shortages in the diagnostic workforce, including consultant radiologists and diagnostic radiographers.

\* Clinical radiology UK workforce census report 2018

https://www.rcr.ac.uk/publication/clinical-radiology-uk-workforce-census-report-2018

\* The Radiography Workforce. Current Challenges and Changing Needs https://www.sor.org/sites/default/files/document-versions/appg\_a4.pdf



- Significant diagnostic capacity issues are hampering the drive to improving patient care, experience and outcomes, with a considerable volume of investigations waiting more than 30 days for a report.
- Ambitious plans for new care models and improved outcomes require novel approaches, maximising the skills of the entire imaging team.



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- Longer turnaround times delayed diagnoses.
- Delayed diagnosis of critical findings.
- Long wait times for results, potential for delayed diagnosis.
- Working increasingly fast and becoming unsafe.
- Unreported examinations [are] rising.
- Actual and perceived pressure to increase the throughput of patients/scans, potentially leading to more errors.
- We are unable to provide a safe and reliable radiology service.
- Risk of not picking up important incidental findings for several weeks.
- We cannot meet expectations of NICE guidelines clinical pathways.
- Increase in complaints, litigation etc.



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The status quo is no longer an option.



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### Clinical aspects

- Patient
- Referral
- Vetting
- Booking (Patient centred/ focused)
- Appointment
- Attendance
- Preparation
- Radiograph Clinician review

- Post exam documentation
- Reporting (pile) worklist
- Report
- Phone
- Electronic
- Paper
- Report read and understood



















The Radiologist Cockpit







• Examples of,

Radiographs

Reports







































#### Image sets

- Phase 1
  - 100 patients (200 images)

- Phase 2
  - 15,000- 20,000 patients



#### Reports

Reported by Dr

, Radiology Speciality Registrar. Aberdeen Royal Infirmary. GMC

Clinical details: Patient has learning difficulties. Has a painful left foot since Monday cant remember injuring foot. Has pain on palpation over her lateral malleolus and base of 5th metatarsal. Has good ROM. No obvious bruising or deformity ? bony injury

Left foot and ankle: Generalised soft tissue swelling. No joint effusion or acute bony injury.

Exam Date: 01.06.2019 Exam: XR Wrist Lt

History:

Fall, left arm injury, bruising & swelling dorsum left middle & ring metacarpals, tender swelling mid-radius. ? fracture

Left hand and wrist:

There is a comminuted extra-articular fracture of the distal radius with slight impaction and slight dorsal displacement but no significant angulation. No other bony injury identified.

Post cast images show improved alignment of the distal radius fracture.

Reported by Mrs

Reporting Radiographer. Dr Gray's Hospital.

Exam Date: 01.06.2019 Exam: XR Wrist Lt

History.

Fall onto right hand with bruising and swelling.

There is an impacted fracture of the distal radius and avulsion fracture of the ulnar styloid.

Degenerative changes also noted in the first carpometacarpal joint.

There is generalised osteopenia.

Post application of cast, satisfactory position maintained.

Reported by Dr

Consultant Radiologist. Dr Gray's Hospital. GMC



1	2	3	4	<u>5</u>
Add more than one if need be  Avulsion Compression Impacted	Epiphysis Physis Metaphysis	Add one  Radius Ulna Femur 3rd Cervical	Add one  No Minimal Less than x degrees X degrees	No Minimal Shaft-width ½ shaft-width
Compound Comminuted Intra-articular	Midshaft Prox 1/3 shaft junction Dist 1/3 shaft junction Etc.  Pedicle	Vertebra 4th Lumbar Vertebra Etc		X millimetres  Include Shortening of X mm Rotation of X degrees
Transvers Oblique Spiral	Body Spinous process			
Undisplaced Minimally displaced	Etc	75.		



#### Benefit

- Patient Diagnosis
- No unnecessary delays
- Hospital workforce (out of hours support)
- Radiology Workforce
- Reporting Capacity. Negative rate. Formal report.
- Enterprise Imaging
- Cloud based



# Any Questions?

