

Interpretation of Paediatric X-rays

by

Registered Advanced Nurse Practitioners

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RANPs, Emergency Care Network, UL Hospitals Group



Working together, caring for you

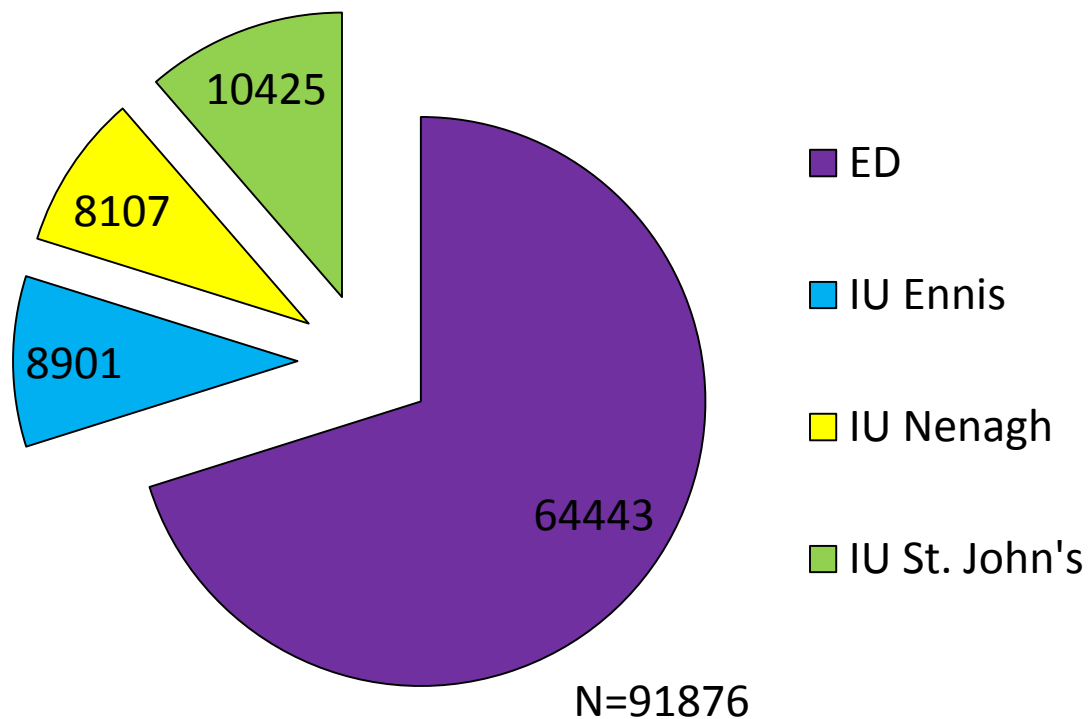


Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

UL Hospitals Group Emergency Care Network



Total Attendances for 2016



Rationale for Audit



- Limitations to X-ray prescribing in UL Hospitals Group excluding St. John's Hospital
- High resource activity
- High service activity
- High risk activity
- Based on best practice and clinical effectiveness
- Transparency in clinical practice

Aims of the Audit



- To gather information regarding paediatric patients aged between 5-15 years that were seen and prescribed an x-ray by RANPs within the ECN during a specific timeframe.
- To demonstrate adherence to the RANP ionising radiation (X-Ray) scope of practice.
- To determine the accuracy of RANP X-Ray interpretation.
- To develop an action plan to address areas not in line with standard.

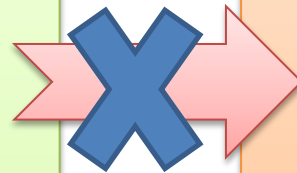
Audit Objectives



To expand our scope of paediatric x-ray prescribing to match our scope of clinical practice.

Paediatric patient 5 years and over

- Minor head injury with no LOC
- Facial injury
- Injury/pain to shoulder, upper & lower arm, wrist, hand, fingers.
- Injury/pain to knee, lower leg, ankle, foot, toes
- Lacerations, cuts, abrasions all areas, nail bed repair
- Foreign body to eye and ear
- Abscess, paronychia, wound infection, cellulitis
- Animal / insect bite



RANP Scope of Paediatric X-ray Prescribing

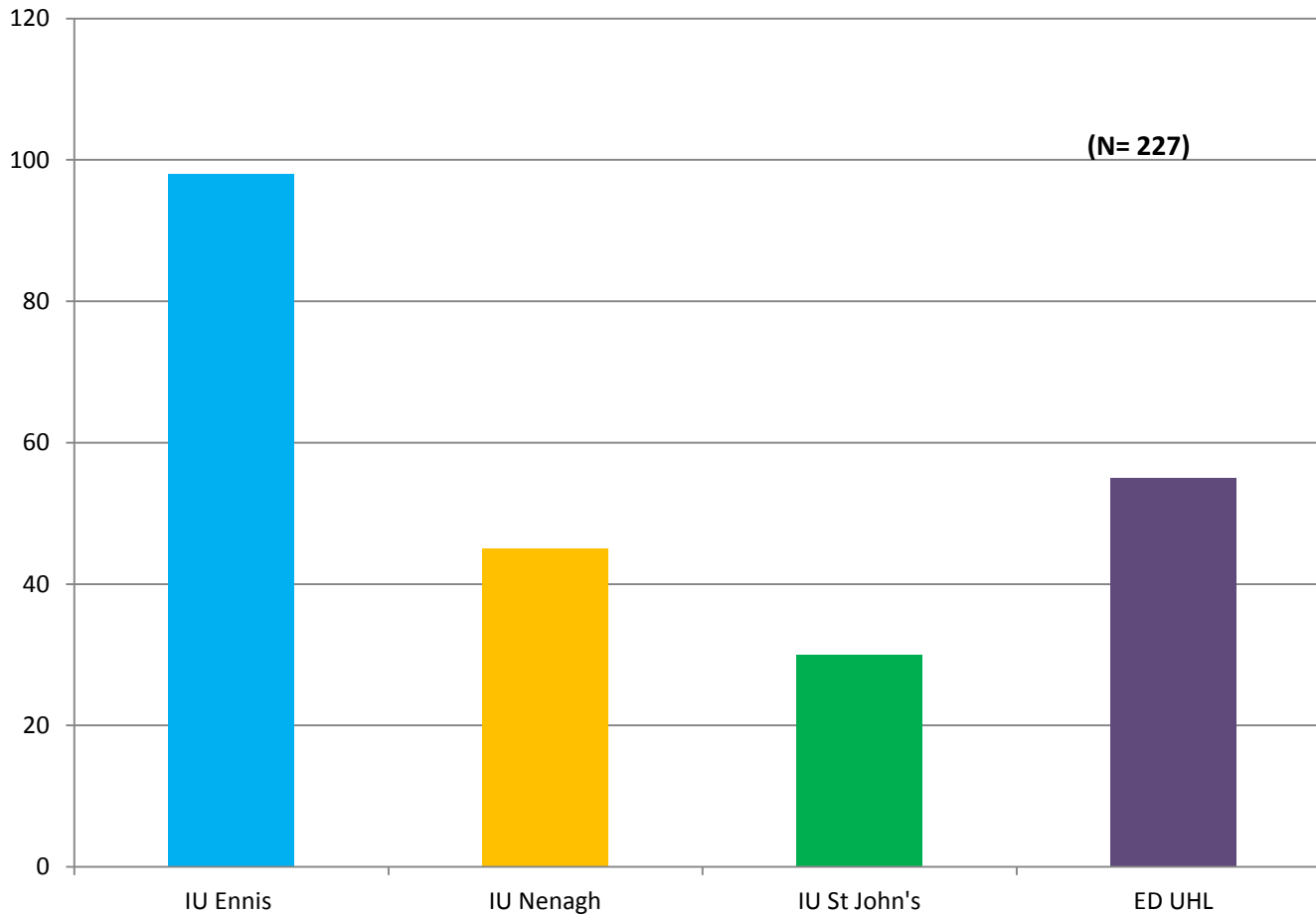
Ankle
Foot
Toes
Wrist / Scaphoid
Hand
Fingers/Thumb

Methodology



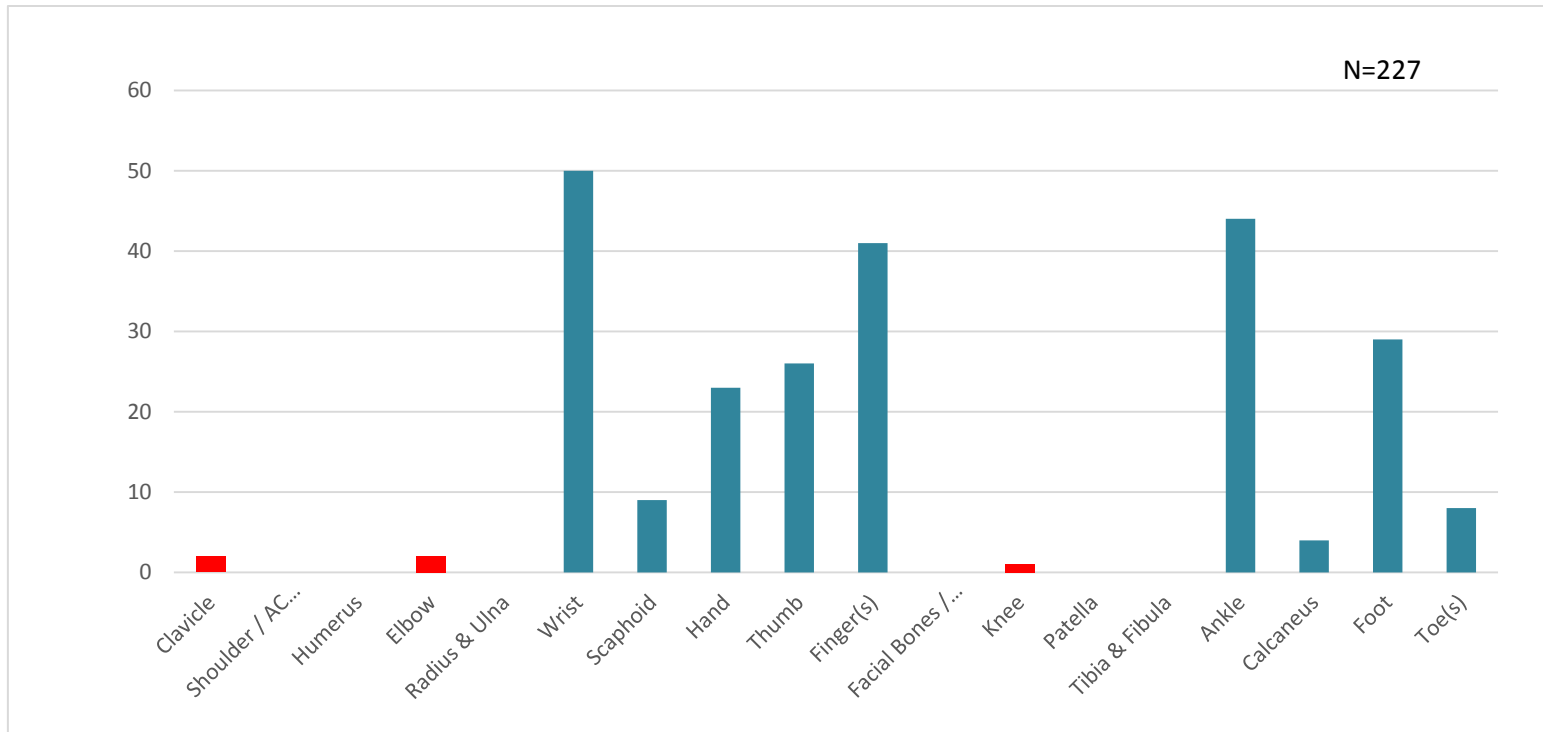
- Retrospective peer review of the NIMIS database and clinical case notes.
- Inclusion
 - Paediatric patients aged between 5 and 15 years prescribed an x-ray by RANPs over a 3 month period.
- Exclusion
 - Patients aged 16 and over
 - All patients not prescribed an x-ray by RANPs

Findings



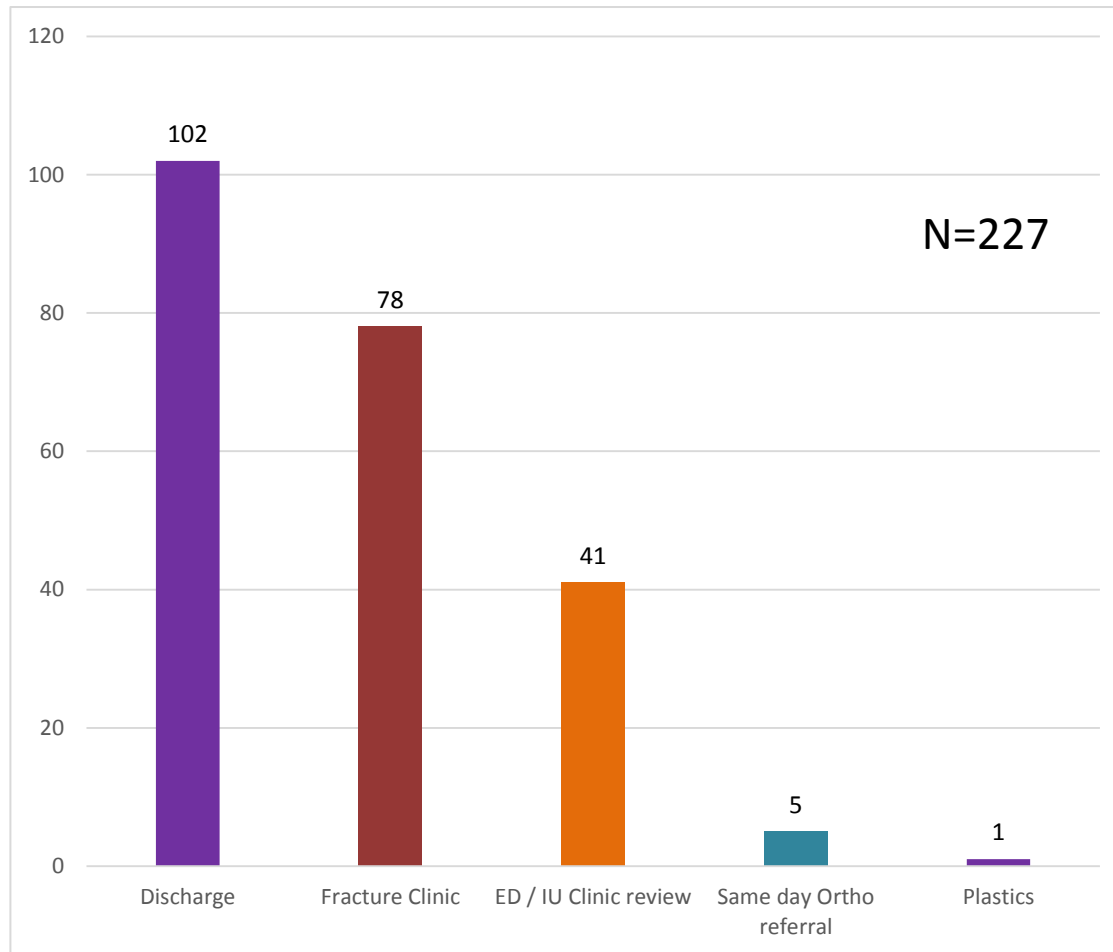
227 paediatric patients were prescribed an x-ray by RANPs within a 3 month period

Scope of prescribing practice



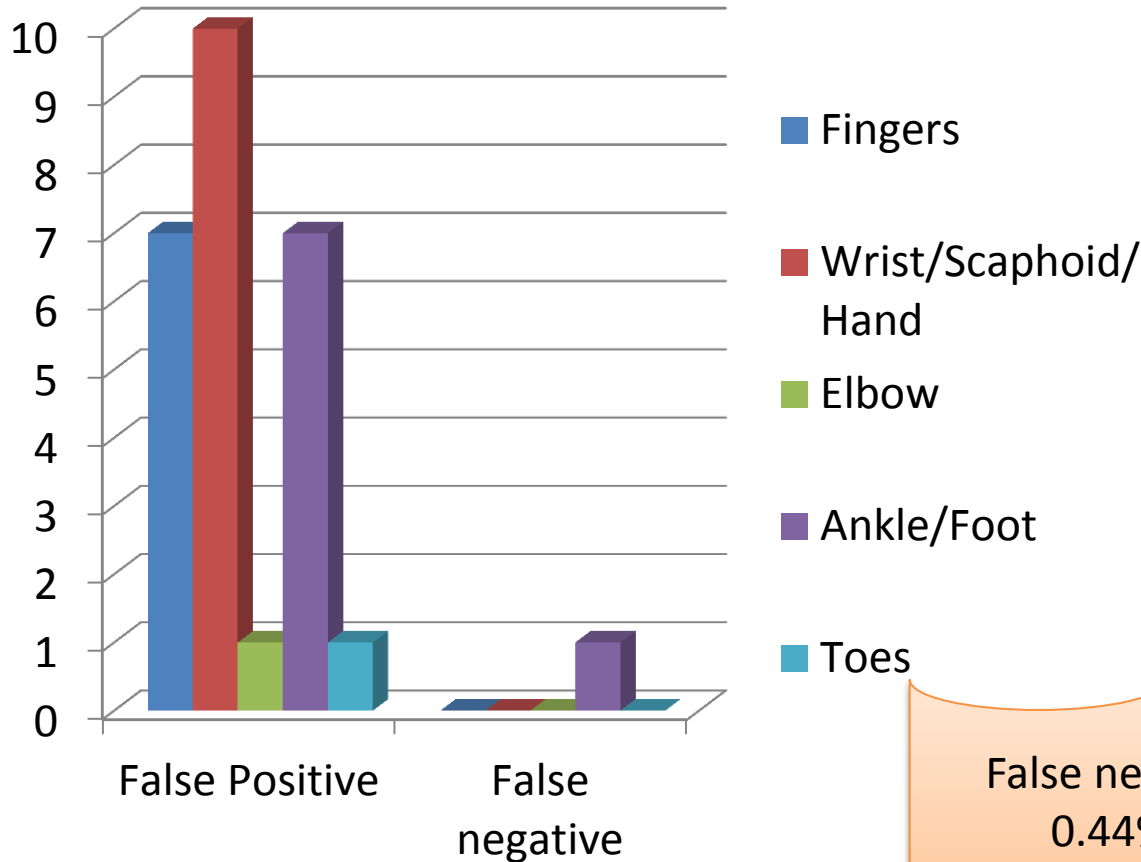
Less than 1% (n=1) of the x-rays prescribed by RANPs were outside the RANP scope of prescribing practice as outlined in the Groups Nurse prescribing ionising radiation policy.

Patient Outcome



45% (n=102) of paediatric patients were discharged with no follow requirements

RANPs X-ray Interpretation V's Consultant Radiologist X-ray Report



14% (n=33) of x-rays interpreted did not match the Consultant Radiologist x-rays reports.

Chart Review

False positive rate
11% (n=26)

False negative rate
0.44% (n=1)

Conclusion



There were no negative consequences for patients as a result of 'false positive' or 'false negative' interpretations.

However, the fracture clinic had an additional workload due to false positive referrals.



- Audit report disseminated to X-ray Prescribing LIG and Medical Directorate.
- As a result, our x-ray prescribing scope was expanded to match our RANP clinical scope.
- Plan for re-audit in 2018.

RANP Scope of Paediatric X-ray Prescribing

Femur; Knee; Patella; Tibia & Fibula; Ankle; Calcaneum; Foot; Toes; Scapula; Clavicle; shoulder; AC joint; Humerus; Elbow; Radius & Ulna; Wrist; Scaphoid; Hand; Fingers/Thumb; Facial bones; Mandible; OPG; Orbits out rule FB;



Any
Questions