

Physiotherapists Identified 67% of Abnormalities on Paediatric Chest X-rays

QI Project: Evaluation of On-Call Physiotherapists Interpretation of Paediatric Chest X-rays

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Background:

The ability of on call respiratory physiotherapists to accurately interpret chest x-rays is essential to identify indications and contraindications to physiotherapy treatment.

Ball et al, 2017, investigated this in physiotherapy students however there is no current evidence that has evaluated the accuracy of qualified physiotherapists interpretation of chest x-rays

Useful Information

- Evelina London Children's Hospital is a tertiary hospital with a 23 bed PICU.
- The overnight on-call rota is paediatrics respiratory only, with approximately 24 members. Staff are a mix of AfC bandings 5-8a, with a large proportion from adult services.
- Training on reading chest x-rays is provided by an online teaching module, using an A-G systematic analysis. This is consolidated with bedside teaching from senior staff.
- Chest x-rays overnight rarely have a formal report, and physiotherapists interpret these images to inform their assessment and treatment.

Method:

Consensus outlining appropriate pathologies to identify on a CXR

10 CXR's compiled into an interpretation quiz – common pathologies and contraindications to treatment noted

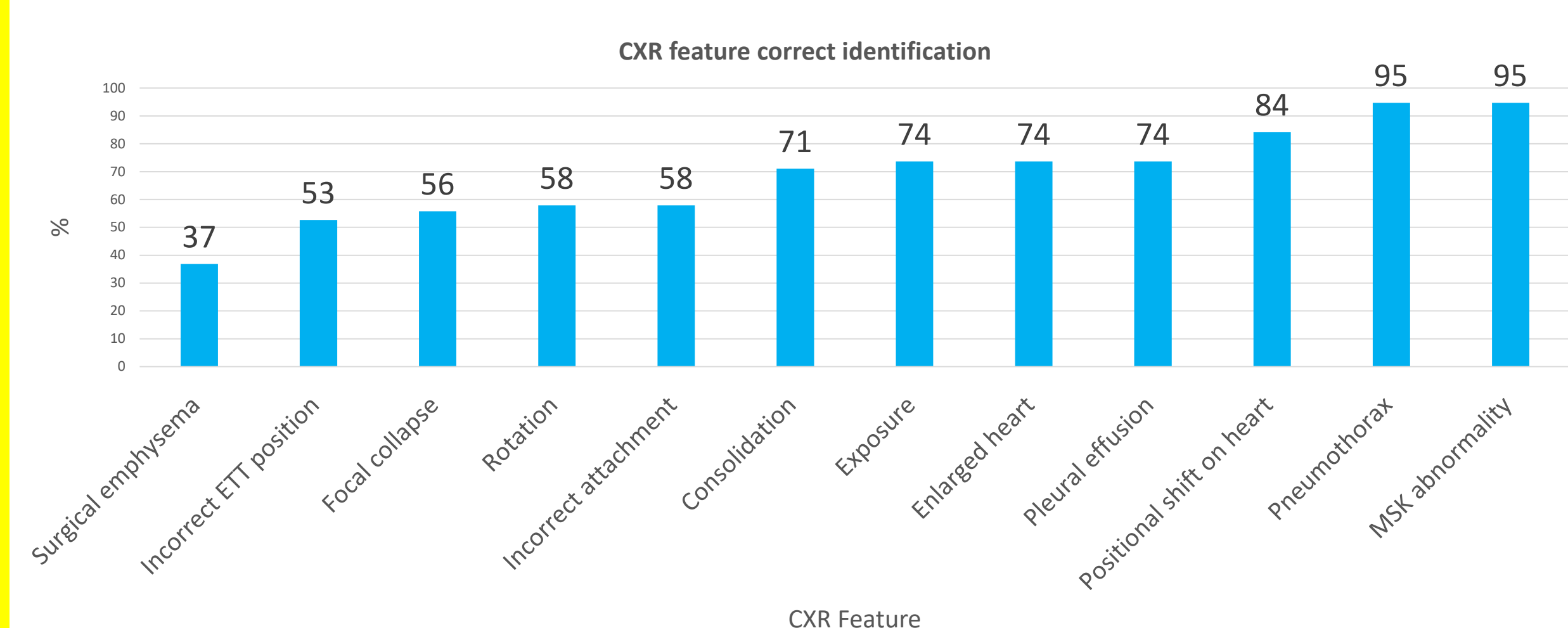
Pilot CXR analysis quiz sent out with adaptations made according to feedback

Quiz distributed to 19 eligible participants and data analysed

Results:

19 physiotherapists completed the chest x-ray quiz

Percentage of correct chest x-ray feature identification:
 Mode - 67% Range – 33-94%



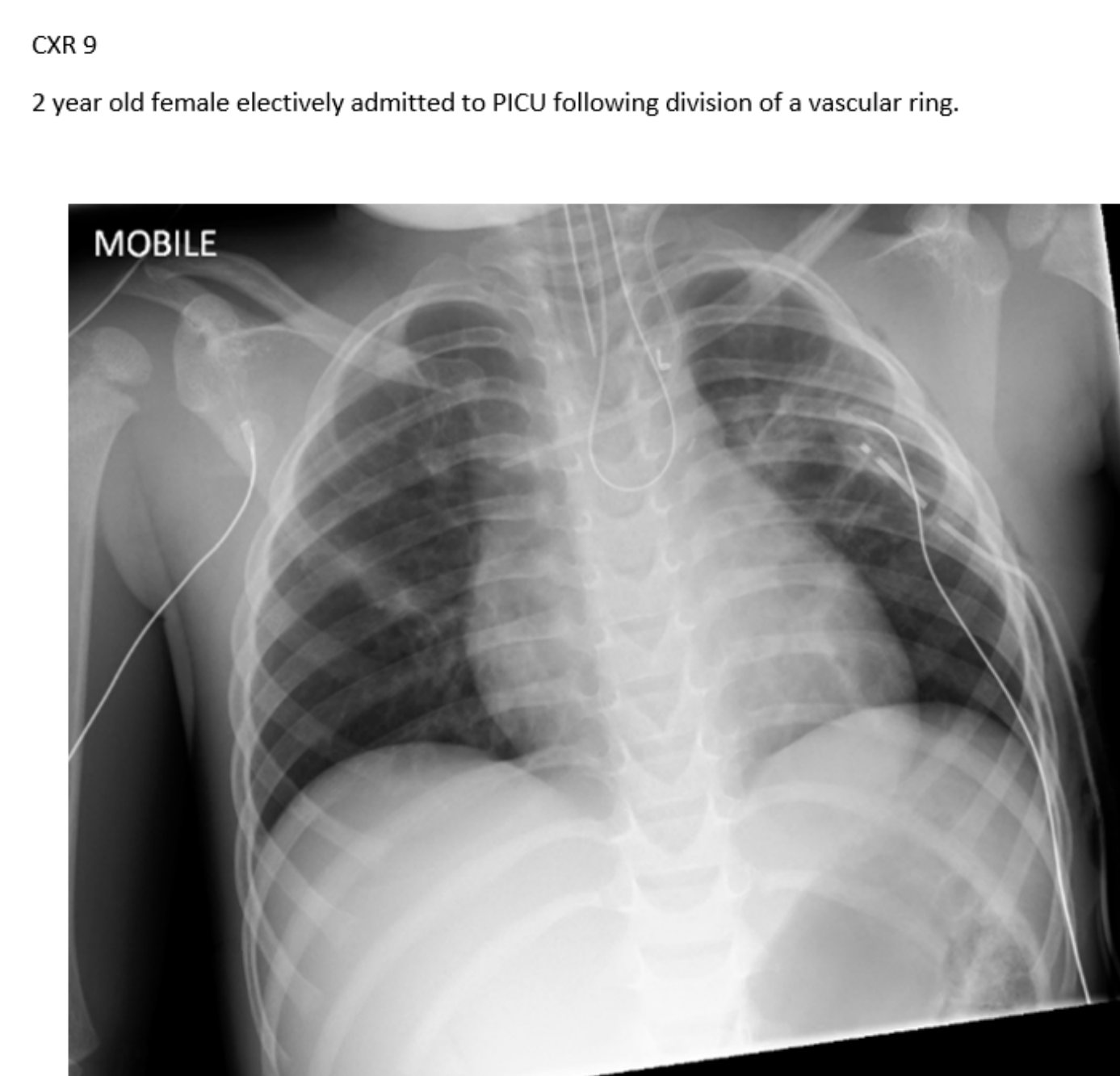
Conclusion:

There is a range of proficiency in chest x-ray interpretation skills of physiotherapists
 Level of proficiency is not linked with experience
 The contraindications to physiotherapy of pneumothorax was frequently identified, however incorrect ETT placement was not.

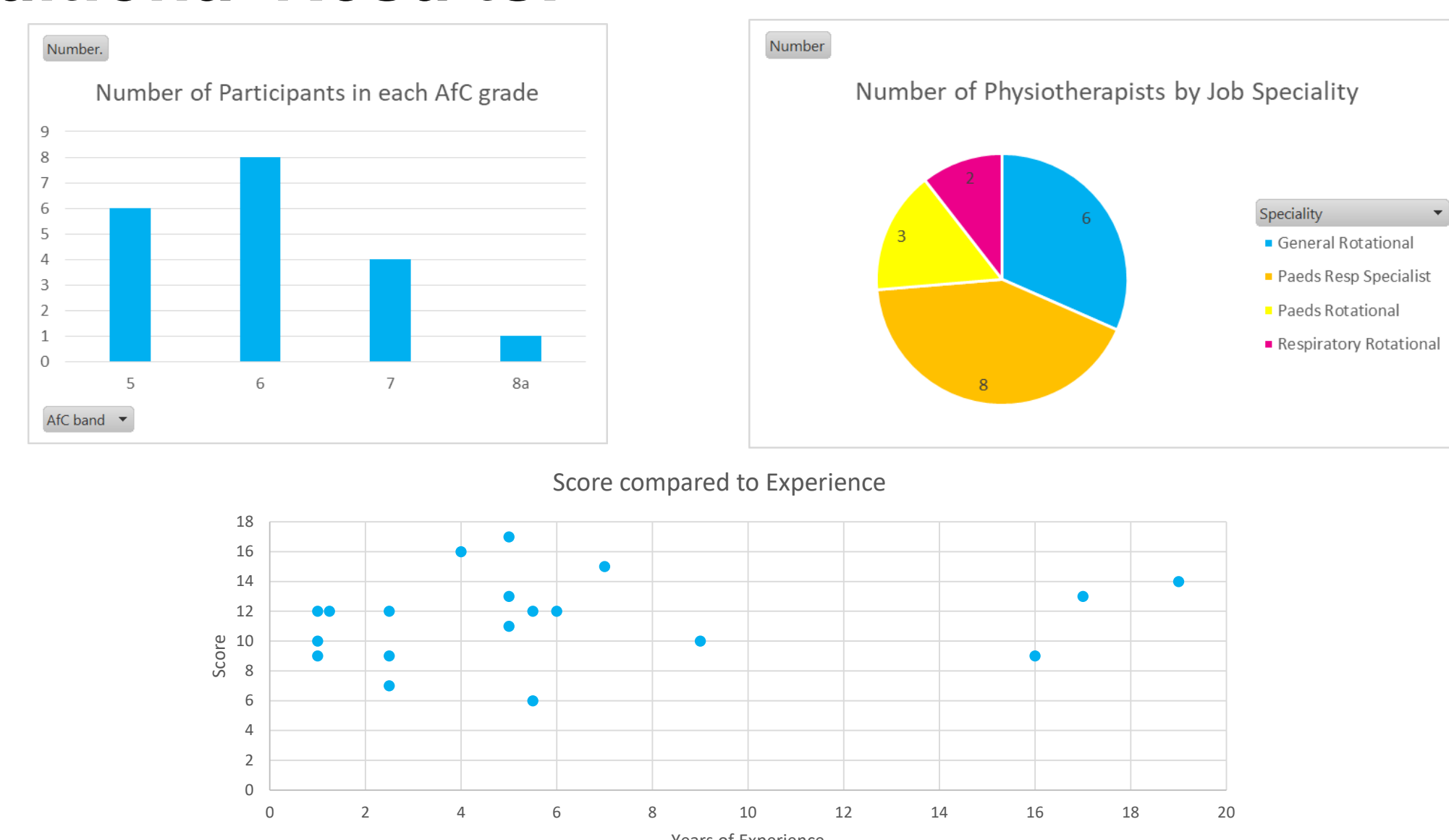
Discussion:

What is the expectations of physiotherapists to be able to identify features on chest x-rays?

Example question and marking form:



Additional Results:



Participant Feedback:

- Evaluating 10 chest x-rays was time consuming (took over 1 hour to complete the quiz)
- Completing the project and being given the answer sheet (after quiz completion) was helpful additional education on how to interpret chest x-rays.