Advanced practice radiographer reporting corrects poor referral practices from emergency and minor injury departments



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Introduction

From a perspective of Ionising Radiation (Medical Exposure) Regulations (IR(ME)R, inappropriate referral practices are frequently encountered.¹ These are generated by all medical practitioner levels, emergency nurse practitioners and triage nurses in a range of environments from major trauma centres to minor injury units. This investigation identified the degree of failure to meet IR(ME)R governance expectations and RCR guidelines ² across the most heavily populated health board in Scotland during a period of one rotation of junior medical staff when data was gathered at the start of their placement and in their final month of education. This presentation describes work in progress that identifies where omissions in content are made and by whom, and suggests potential impact on the report.

Method

August 2014 - Start of new Doctors rotation

Repeat audit January 2015

Random selection of examinations of the appendicular skeleton – 25 from each area

Overview of ED and MIU appendicular requests across the Health Board

5 Emergency Departments and 3 Minor Injury Units

Referrals from all medical grades, ENP's and nurses.

Assess accuracy of clinical history.

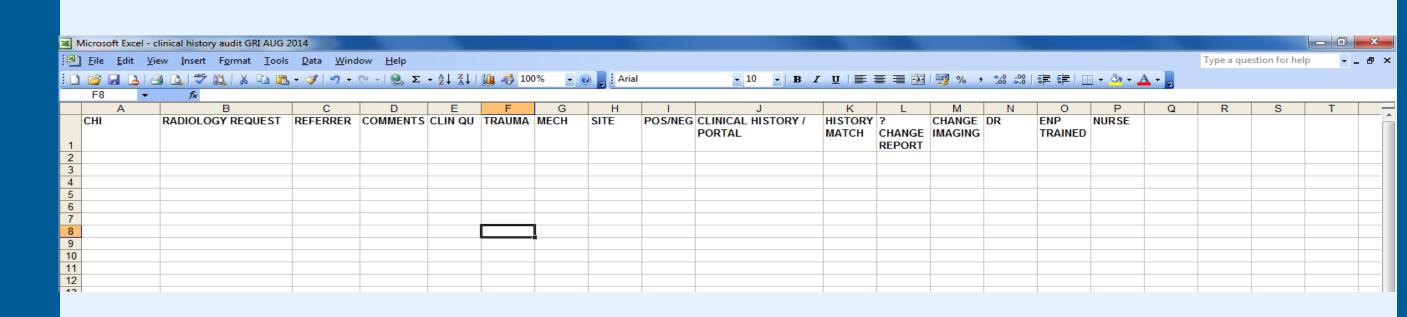
Were the examinations justified?

Did the referrals meet expectations?

Information collected:

Did the request mention:

- a history of trauma,
- mechanism of injury,
- specific site of concern,
- a clinical question.
- •Did the request match the history on clinical portal?
- •Would the report or imaging have been changed?
- Were the radiological findings positive?

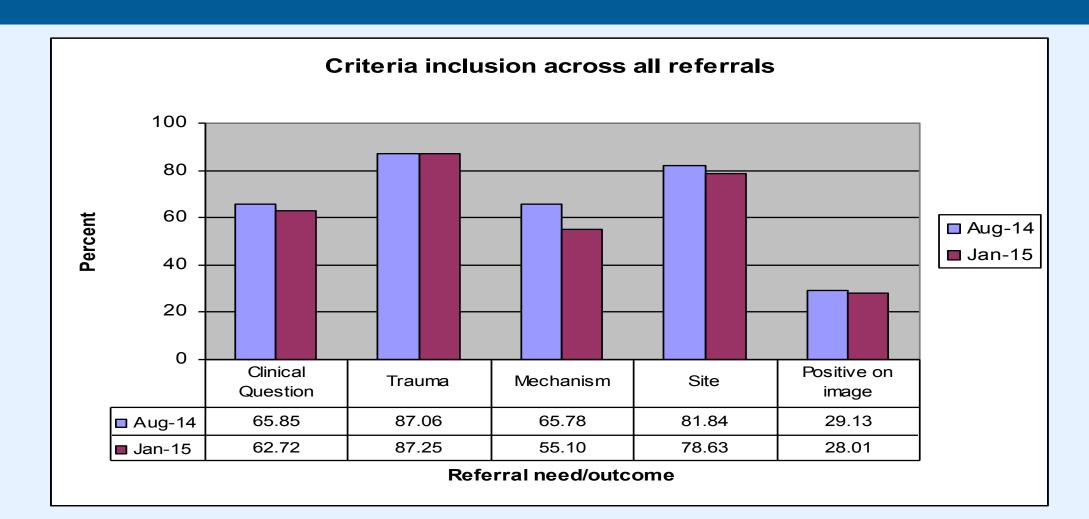


2997 exams audited in total.

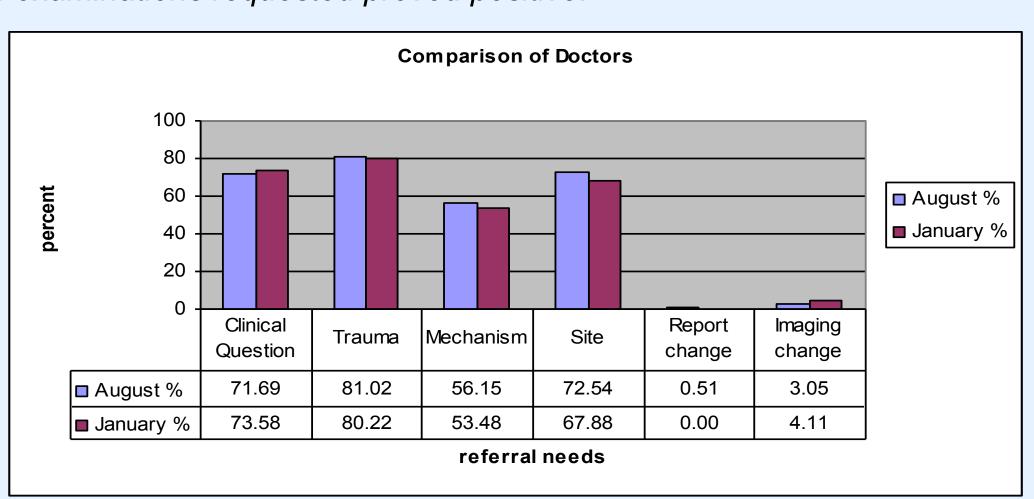
Drs requested 1222.

ENPs referred 1652.

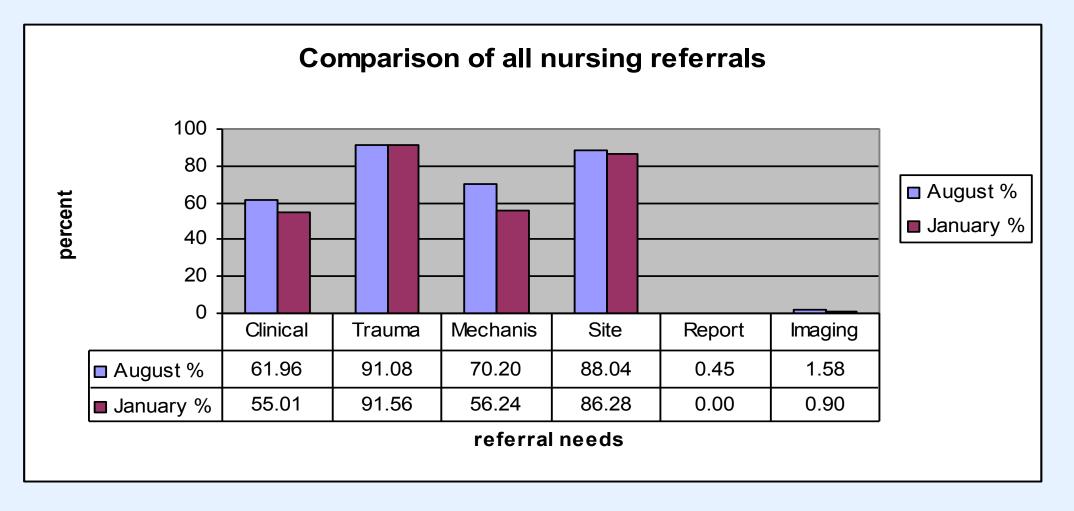
Nurses referred 123.



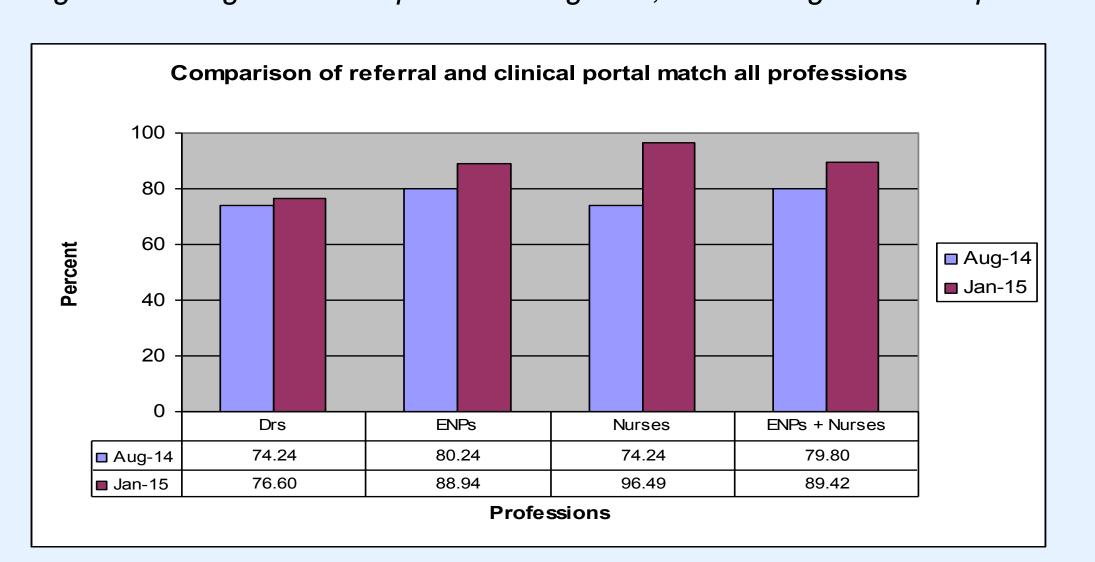
Results similar in both time periods, only a drop in including mechanism of injury. Only a third of examinations requested proved positive.



Medics weakest at identifying mechanism of injury and had potential to have incorrect imaging obtained due to incorrect/lack of clinical history.



Nursing showed significant drop in including MOI, and asking a clinical question.



Nurses showed an improvement in matching history from referral with clinical portal.

Results

2997 referrals audited

ENP referrals accounted for more than half audit.

Non medical referrers are better at informing whether there has been trauma

No profession was good at asking a clinical question

Less than 1/3 positive examinations from all professions.

Potential for changing imaging and reports in 5% of examinations.

Conclusion

Many studies worldwide show similar findings using much smaller investigations where inadequate/incorrect clinical history is given, no clinical question is asked. 3,4,5,6,7,8

By having an accurate clinical history and clinical question posed by the referrer:

- the practitioner will be able to ensure justification and appropriateness of examination,⁹
- the reporter can combine radiological findings with the clinical information to ensure a concise diagnostic report that responds to a clinical question, ^{2,7,10}
- accuracy and efficiency from the reporting room for the ED or MIU will be improved with time targets met and costs reduced³

Without the appropriate background knowledge and experience available to advanced practice reporting radiographers, it is opined that inappropriate interpretation is likely through the principles of satisfaction of search. This is avoided through an enhanced capability of the radiographer trained to report and as such prevents treatment errors or missed initial trauma/disease identification that may be communicated through an alert system or interaction with the referring department.

Acknowledgements

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