

A quality improvement project on reducing inappropriate imaging requests by increasing awareness of iRefer guidelines



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Background

- Acute abdominal pain accounts for 5%-10% of A&E visits¹
- Majority of abdominal plain radiographs (AXR) are negative or non-specific¹
- Many AXR requests are inappropriate²
- AXR= 35 CXR, in terms of ionising radiation dose¹
- Many AXR are done as “routine”



What is iRefer?

- iRefer is the radiological investigation guidelines tool, from the Royal College of Radiologists (RCR) ³
- Helps referring GPs, radiographers, clinicians and other healthcare professionals to determine the **most appropriate imaging** investigation(s) or intervention for a given diagnostic or imaging problem³
- The sector where the guidelines could and should have most effect is primary care and **emergency imaging**³



Purpose

Reduce inappropriate AXR requests from A&E department by increasing awareness of iRefer guidelines

Method

- Retrospective: 50 consecutive AXR
 - Demographic and clinical data
 - Results presented to A&E and surgeons
 - Indications for AXR
 - iRefer
 - Posters
- Further 50 consecutive AXR after two months

Results

	Pre	Post
	awareness	awareness
Female (%)	25 (50%)	31 (62%)
Male (%)	25 (50%)	19 (38%)
Mean age	77	63
Compliant with iRefer	37 (74%)	42 (84%)
Admitted to hospital (%)	31 (62%)	38 (76%)
Discharged from A&E (%)	19 (38%)	12 (24%)

Nine patients had CT => one obstruction

Presenting complaint	Number of patients (%)
Abdominal pain	41 (82%)
Vomiting	8 (16%)
Shortness of breath	2 (4%)
Collapse	2 (4%)
Back pain	2 (4%)
Generally unwell	2 (4%)
Loose stools	2 (4%)
Diagnosis on discharge:	Number of patients (%)
Constipation	9 (18%)
UTI	6 (12%)
Non specific abdominal pain	6 (12%)
No diagnosis	5 (10%)
No letter	3 (6%)
Gastroenteritis	3 (6%)
Self discharge	2 (4%)
Flare up of IBD	2 (4%)
Pneumonia	2 (4%)
Incisional hernia	1 (2%)
Appendicitis	1 (2%)

Summary of Results

- iRefer awareness has reduced inappropriate requests
- Reduction in inappropriate ionisation radiation
- Reduction in inappropriate use of already stretched services

Conclusion

- Education and awareness of such tools apply to all modalities
- More awareness needed with more imaging techniques
- Such tools highlight limitations of radiological investigations
- Royal College of Physicians iRefer pilot

Thank you

Any questions?

References:
1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3273785/>
2. <https://pub.com/II/S/10/1/10395>
3. <https://www.rcr.ac.uk/clinical-radiology/being-consultant/rcr-referral-guidelines/about-irefer>