

Improving delivery of Radiology Services within a Same Day Emergency Care Unit (SDEC)

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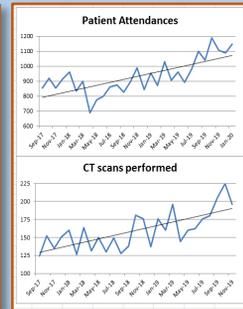
1: Clinical Fellow – AAU, 2: Consultant Acute Physician, 3: Chief Registrar, 4: AAU Ward Manager, 5: AAU Admin Team Co-ordinator, 6: CT Superintendent Radiographer, 7: Radiology Operational Service Manager

Background

The John Radcliffe Ambulatory Assessment Unit (AAU) currently sees over 1000 patients a month. Over a 2.5 year period, patient attendances and CT scans performed substantially rose (As shown in Graphs on the right).

Due to this increasing activity, a significant proportion of patients requiring CT imaging have to return for next day investigations in dedicated time slots. Patient feedback has highlighted radiology delays as a source of poor experience, and furthermore, these delays can lead to difficulties for clinicians in formulating management plans.

The project aim was to reduce length of stay in patients who require a CT scan within their assessment.



Methods

QI Hub
Introduction to Programme
Teaching about model for Improvement
Developed Project Aim
Identified Stakeholders

MANAGEMENT

DATE	TIME	LOCATION	TOPIC
10/10/20	10:00	AAU	Introduction to QI
17/10/20	10:00	AAU	QI Hub
24/10/20	10:00	AAU	QI Hub
31/10/20	10:00	AAU	QI Hub
07/11/20	10:00	AAU	QI Hub
14/11/20	10:00	AAU	QI Hub
21/11/20	10:00	AAU	QI Hub
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PILOT 7th - 31st OCTOBER

- Created Electronic scheduling sheet
- Pilot of additional early AM CT slots

Follow Up (Day 2) Median LOS

5hrs 13mins → 4hrs 30mins

AAU Radiology
Enhancing the delivery of Same Day Emergency Care for patients by improving access to Radiology Investigations

Troubleshooting session

- Analysis of Data
- Support from Faculty
- Creation of Presentation

Week 1

PDSA Cycle - PLAN

- Staff Survey
- Retrospective Audit of 173 follow up patients; analysing purpose of visit, length of stay
- Engage stakeholders

Week 2

Process Mapping

Further stakeholder engagement to generate process map

Week 3

PDSA Cycle - DO

- Created Electronic scheduling sheet
- Pilot of additional early AM CT slots

Week 4

PDSA Cycle - STUDY

- Monthly meetings with radiology
- Minor improvements in length of stay with additional early AM CT slots

Week 5

2nd PDSA Cycle

- Ongoing monthly meetings with radiology – analysed process map and reduced steps to “lean” process
- Trial of open-access CT slots

Week 6

Presentation at QI Hub

Delivery of presentation regarding my project to QI Hub delegates, faculty and staff members.

Week 7

Week 8

Results

1) Staff survey feedback concurred that current capacity was inadequate for demand. Feedback demonstrated that multiple patients were being booked into the same CT slots – thereby causing delays for patients and frustration for staff. Delays in contacting duty radiologist was also raised.

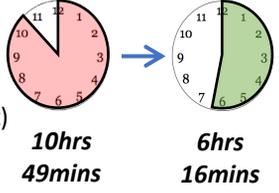
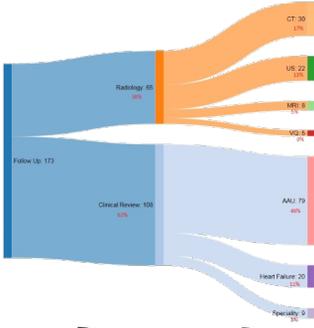
Solutions

Creation of an electronic scheduling document to prevent any duplication, and engaged with stakeholders (radiology) to lean process of accepting CT scans.

2) Analysis of 173 follow up patients revealed 1 in 6 patients were returning on a subsequent visit to primarily facilitate a CT scan. Average lengths of stay = 5hrs 22m (Day 1) + 5hrs 13m (Day 2)

Solutions

- a) Implementation of open access priority CT scans (reflecting A&E practice) improved same day scanning capacity (Time to Scan 1hr 10mins) and reduced average department length of stay (as seen right)
- b) If patients still require a follow up visit (e.g. due to out of hours) - dedicated early morning CT appointments managed to reduced Day 2 average length of stay to 4hrs 30mins.



Conclusion and Reflections

The NHS Long Term plan envisions every major hospital providing SDEC. Our take home message from this project is that timely access to diagnostics is essential for the effective operations of same day emergency services.¹

Subsequent staff feedback has been very positive and has identified further improvement areas; such as access to portering and availability of urgent MRI scans. We would also like to collect further patient feedback to assess if radiology delays are still perceived as an ongoing issue by patients themselves.

References
1 - <https://www.longtermplan.nhs.uk/online-version/>