

APA BLINDED ABSTRACT FORM: TITLE AND ABSTRACT ONLY

Title: Paediatric MRI Scans under General Anaesthesia: Optimising the Service

Introduction:

The introduction of 'The Productive Operating Theatre' has led to a recent drive in our institution to improve theatre efficiency, but little attention has been paid to remote anaesthesia. It had been noted that problems were repeatedly causing delays during our scheduled sessions for paediatric MRI scans under general anaesthesia (GA). Aiming to improve our service we conducted an audit to identify the specific issues arising whilst undertaking these scans.

Method:

Over a 15 week period (Aug - November 2012) we conducted an audit comparing the scheduled procedure on the paediatric MRI list with the actual procedure which took place. We set our Standard; 100% of cases should occur as described on the published list without any errors i.e. patients should be ready for a GA and the listed procedure/s should be accurate. The audit was registered and approved by the hospital clinical governance department.

Table 1

details of problems occurring:

Results:

- 12 weeks data was captured
- Patients aged from 10mths to 3yrs
- 34 cases with 39 errors highlighted (Table 1)
- 8 cases without errors (20.5%)
- 31 cases with errors (79.5%)
- 11 cases with >1 error (28.8%)
- 3 extra lists scheduled
- Estimated cumulative delay 11.25 hrs

Problem	No. of occurrences
Cancelled Patients	1
Difficult to Consent	2
Inaccurate Procedure/s Listed	2
Administrative Errors	3
	8
	2
	1
	6
	3
	1
	4
	1
	3

to show

Discussion:

Problems arose in 79.5% of cases. The majority of issues encountered related to obtaining consent, missing medical information, and additional procedures being added on the day. Three patients' GAs were cancelled on the morning of their scan; two did not require a GA and one was found not to need their scan. These children were starved and almost exposed to the risks of an unnecessary anaesthetic. In addition to the impact on patient experience, the inefficiency of our system was affecting service provision with the anaesthetic and radiology departments scheduling additional lists to meet the 6 week waiting list target. To address these issues we identified each step in the process of booking and undertaking an MRI scan under GA in our hospital and determined where in the process problems were arising.

Steps taken to improve the service included:

- Audit findings presented to all relevant groups (referring clinicians, radiology, admissions, anaesthetics, pre-assessment)
- Service-users involved in development of new booking system
- New booking protocol introduced (Figure 1)
- Paediatric radiologist to review all scan requests
- Referring clinician to book time for additional procedures
- Referring clinician to initiate consent and document reason for scan clearly in the notes
- All patients to be reviewed in paediatric pre-assessment prior to scan being booked
- Referring clinician to provide point of contact on day
- Referring team member to produce discharge summary
- 'Team Brief' introduced to improve communication
- Anaesthetic logbook detailing errors to be reviewed periodically

Paediatric MRIs under General Anaesthetic

Children are continually arriving for the GA MRI list unprepared for both their scan and anaesthetic, resulting in long delays, cancelled scans and, on occasions, unnecessary GAs. Problems are arising at several steps in the booking process. We have introduced some alterations to the process to create a safer, more efficient system.

[Emergency Scan -> discuss with Duty Paediatric Consultant Anaesthetist](#)

[Elective Scan -> Follow Paediatric MRI booking Proforma](#)

Elective Paediatric MRI Booking Proforma:

- 1) Patient will need a GA for their scan
- 2) Radiology MRI request form completed
- 3) 'Blue Form' for admissions completed detailing need for GA and additional procedures required
- 4) Consent Form for the scan initiated (to be counter-signed by the anaesthetist on the day)
- 5) Reason for scan clearly documented in notes (to enable anaesthetist to consent for GA)
- 6) Point of contact on day of admission to liaise with in the event of any problems clearly documented in notes
- 7) Nominated team member available on day to complete discharge

Figure 1 to show new Booking Proforma

Conclusion:

We conducted an audit in response to anecdotal reports of problems arising during the Paediatric GA MRI list in our hospital. The findings confirmed our inefficient system was impacting on patient experience and service provision. We developed and introduced a new booking protocol to address the issues arising and we will be monitoring the impact of our measures by re-audit.