

Radiographer Performed Paediatric Micturating Cystograms

A Solution to a Radiology Service Provision Problem

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Paediatric Micturating Cystograms

July 2002 – Agreement to take on new role

- **Consultant Paediatric Radiologist handed in resignation**
- **MCUG service – 1 session per week to be covered**
- **Examination includes catheterisation of the child + antibiotics post procedure**
- **All other radiologists fully committed**
- **I had 9 years experience working with the Paediatric Radiologist**

Paediatric Micturating Cystograms

Training Plan Development

- Contacted paediatric centres in England to check if other radiographers involved in this role – 1 found in England
- No formal training courses available
- Sought advice from Paediatric Radiographer who undertakes MCUG's

(Liz Hunter – Newcastle RVI)

Adapted her training programme for my needs

No need to re-invent the wheel !

Paediatric Micturating Cystograms

Aug 2002

- 1 Week at Belfast Children's Hospital (**mainly for catheterisation**)
- Training with the Paediatric Radiologist at South Tees until end Sept.'02

Portfolio

- *Peer review publications – pathology, technique, complications, antibiotics*
- *Building up body of evidence of competence*

Reflective diary

- *Evaluation of progress and highlight problem areas*
- *Critical incidents – e g failure to catheterise caused a crisis of confidence.
Evaluation of the reasons why it happened – **not my technique!***

Paediatric Micturating Cystograms

Aug '02 – July '03 - 55 patients examined

- 10 patients examined in Belfast – supervised by radiographers
- 6 patients supervised by Paediatric Radiologist at South Tees
- 37 patients supervised by Urology Radiologist at South Tees

Designed Radiographer report form with audit data fields

Catheterisation – 1 attempt or more than 1

Completion of examination

Reporting with / without radiological advice

Complications

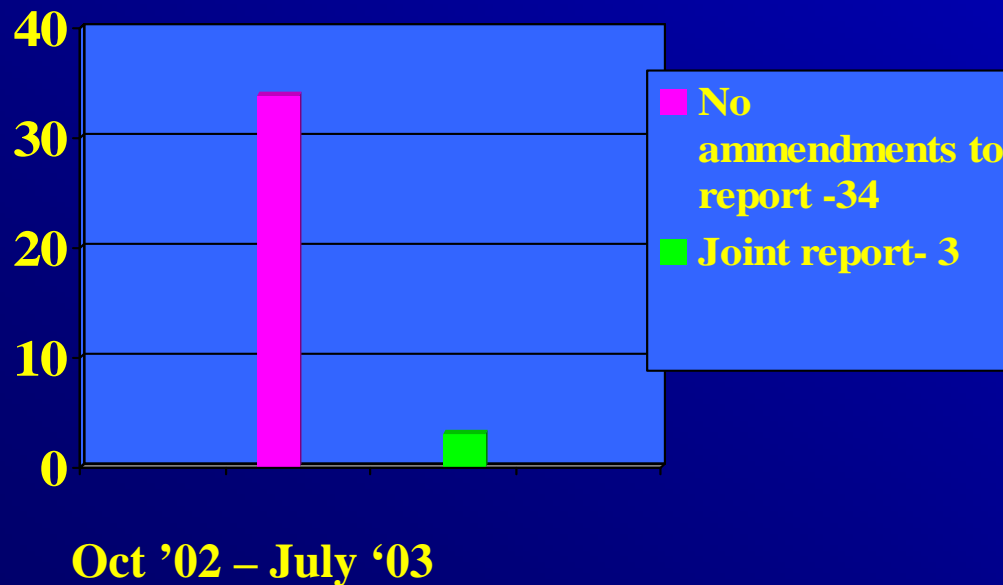
Examination re-appointed - reason

Dose

Image quality

Assessment of Radiographer Reporting of Paediatric Micturating Cystograms

From August 2003



- All examinations performed independently
- Normal / uncomplicated reflux independently reported
- Complicated reflux 2nd read by radiologist

Reporting Paediatric Micturating Cystograms

Control KUB



Soft tissue shadows
Status of spine & bony pelvis
Presence or absence of opaque calculi or masses

Filling Phase



Name/ volume contrast
Drip infusion or hand injection
Bladder contour
Presence or absence of bladder anomaly
Reflux on filling and / or voiding

Voiding Phase



Reflux – unilateral or bilateral
Dilated or distensible ureters and / or collecting systems
Clubbing of calyces
Status of urethra
Presence of posterior urethral valves in males

Post Void



Bladder drained or residual urine post void.
Voided on table y / n
Reflux + Grade (1 – 5)
(International Reflux Study 1985)

Complicated Reflux



2nd read by Consultant Radiologist

- Potential for child to undergo surgery
- Complicated pathology - still a learning curve for me

Post Radical Prostatectomy Cystograms

2002 - 2003

- 1 year of undertaking / reporting the procedure under supervision
- Check for anastamotic leak
- No leak – catheter removed under fluoroscopic control
- Assessment of competence / accuracy of reports

2003 >

Radiologist/ Urologist agreement to new role

- Now radiographer managed examination with reduction in number of hand off's in the care pathway
- No waiting time as previously if radiologist on annual leave
- Radiologist released to undertake more complex tasks

Adult Cystograms



Post Radical Prostatectomy

Micturating cystogram to check integrity of the anastomosis



Post Hysterectomy

Cystogram to check for vesico vaginal fistula

Other Urological Procedures



Nephrostograms

2003 >

- **Performed after discussion with Radiologist**
- **Report independently then 2nd read by Radiologist**

Service Improvement?

Service / Patient

- Continuity of the Paediatric MCUG service for South Tees patients
- Safe procedures – no report of complications post procedure
- Development of new information leaflets, consent forms, post procedure after care leaflets
- Development of policies / protocols – procedural, patient management
- Reduction in handoffs / waiting times
- Audit / research to be developed in conjunction with paediatricians

Fluoroscopy Team

- Extending the scope of role development for GI / Fluoroscopy radiographers
- Performing / reporting examinations other than barium enemas
- Developing the teaching role of GI radiographers
- Strengthening team working with radiologists
- Raising the profile of the GI radiographers and the Fluoroscopy team
- Closer working relationships with medics & other disciplines

What Have Been the Most Important Aspects of this New Role to Me

- Developing my own training plan / training schedule
- Realising that there is no consistent approach to the procedure even amongst specialist centres
- Refused application to radiologist study day on paediatric urology
- Reflection – *working through a crisis of confidence in my own abilities*
- Not being afraid to ask help – *observation of my catheterisation technique by paediatrician*
- Having the “right” staff working with you
Competent / Supportive / Empathetic
Having the right numbers of staff

Role Redesign & Modernisation in GI Radiology

South Tees NHS Trust

The Fluoroscopy Radiology Team

- Changes in roles supported by appropriate education & training
- Changed roles are protocol based, ensuring clarity, responsibility & safety
- Role changes are subject to evaluation

Outcomes

- Improved patient services / waiting times
- Fulfilment of some of the 10 Key roles
- Introduction of the 4 Tier system
- Development of AHP's with Special interests

(DOH. Gateway ref. 2141. Nov 2003)

Consultant Radiologists

GI Lead Radiographer Practitioner

- **1992** - Barium enemas
Barium swallows / meals
Videofluoroscopy swallows
- **2002** - Paediatric micturating cystograms
Adult cystograms
Nephrostograms
- **2004** - Proctograms

GI Radiographer Practitioners

- Barium enemas
- Adult cystograms

Assistant Radiographer Practitioner

A photograph of a sunset over a field. The sun is low on the horizon, creating a bright orange glow. The sky transitions from orange near the horizon to a pale, hazy blue at the top. Silhouettes of trees and a palm tree are visible against the bright sky. The foreground is dark, suggesting a field or a body of water.

Any Questions ?

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