

CTC DATABASE

Quality assurance and audit can be easily underpinned by creation of a CTC database. Current RIS should allow the creation of spreadsheets containing relevant data. Such a database allows a complete overview of many aspects of performance, supports quality improvement and helps service planning. It also provides the evidence needed to comply with BCSP standards.

The creation of any such database should be registered as appropriate with your trust and discussed with the Caldicott guardian to ensure patient sensitive information is respected.

Suggested fields to collect.

Search for CT Colonography (or descriptor specific for your RIS) examined in desired timeframe.

Additional data to aid outcome audits may be sought from other hospital/regional databases such as an endoscopy database and the Cancer Registry.

DEMOGRAPHICS

Examination Number – unique identifier of the test

Hospital Number – unique identifier of the patient

Age/date of birth – DoB collection may need discussion with Caldicott guardian

Sex

Referrer/Speciality

Patient Class – OP vs IP

Priority – CWT/New/Planned etc

BCSP/Symptomatic

Clinical Presentation

DATES

This may vary depending on what information is recorded on your system. This might include:

Date of request

Date of receipt of request

Date of vetting

Date appointment is made

Date of examination

Date of report verification

PERFORMANCE

Name of performing radiographer/s

CTC Technique:

Full prep (Y/N)

Tagged (Y/N)

Same day post failed Colonoscopy (Y/N)

Balloon catheter (Y/N)

Buscopan (Y/N)

IvC (Y/N)

Position: Supine & Prone/Decubitus +/- Additional scan positions

CT Chest (Y/N)

Radiation Dose

Bowel visualization. This might include:

- Distension (grade distension of segments)
- Faecal residue (grade and segments)
- Residual fluid (grade and segments)

OUTCOMES

Name of reporting Radiologist

CTC Findings:

Polyp/cancer: record size and position

- Polyps 6-9mm
- Polyps \geq 10mm
- Cancer
- Radiologist's confidence level

Other colonic findings:

- Polyps < 6mm (record size and position)
- Diverticular disease (record segments)
- Other

Significant extracolonic findings

Recommendations for further investigation/management

Complications of CTC

Lower GI Endoscopy (Colonoscopy/Flexible sigmoidoscopy)

Date(s)

Findings:

- Polyp/cancer size and position
- Other

Diagnosis

Histology date and findings (from endoscopy or surgery)

MDT/ Cancer Registry outcomes

Follow-up imaging:

- Date
- Examination
- Findings: Negative / Significant positive finding (record)

REPORTING

Clinical Information – unless requesting is electronic, this may be difficult to collect. Even when present, it is often heterogenous and incomplete. Identification of BCSP examinations is mandatory.

Name of reporter – this may be more than one if second reading or checking work.

Report text – this should contain the useful information to help quality assure your service. As a minimum dataset, it should include comment on overall quality of the examination with reference to colonic distension and bowel preparation. Use of IV contrast and buscopan should also be recorded.

It will also identify examinations with positive colonic and extracolonic findings. Use of short codes, such as those described by Zalis et al., embedded into the report text can dramatically reduce the effort needed to analyse this data.

BENEFITS

AUDIT/QIP

Numbers – longitudinal measure of how service demands are changing – for example NUTH has experienced a 15% increase in demand between 2012 and 2013. Individual reporting figures allow one to satisfy the requirement of the BCSP standards.

Workflow – analysis of times from request to report shows where there are potential delays in the system.

Technique – adequacy rates can be calculated. Can your performing team identify cancers at the time of scan and upgrade a non-contrast study to a full staging CTC (Symptomatic standards suggest this should happen >50% of the time)?

Reporting - positive CTC examinations can be correlated against endoscopic findings to find your own PPV allowing reflection and possible improvement of reporting. Retrospective correlation with cancer registries can look for missed cancers on CTC (false negative rate) and give reassurance to referring clinicians about the safety of this examination.

APPRAISAL/REVALIDATION

Hard data with performance indicators.

Evidence of service delivery/improvement and team-working.