

Gastrointestinal malignancy diagnosed at endoscopy – same day staging computed tomography saves time and results in earlier multidisciplinary team decisions

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Aims

Staging computed tomography (CT) is essential in guiding the management of patients with newly diagnosed gastrointestinal malignancy when discussed in cancer multidisciplinary team (MDT) meetings. Long waiting times for staging CT causes delays in MDT decision making for patients and in commencing treatment.

Kettering General Hospital (KGH) implemented a service pathway in December 2014 in which patients with newly detected gastrointestinal malignancy at endoscopy (gastroscopy, sigmoidoscopy and colonoscopy) can have staging CT post-endoscopy (same day). We have audited the effectiveness of this pathway in terms of time saved to CT and MDT discussion.

Methods

Data were analysed between January 1 2013 to December 31 2017 (5-year period) from endoscopy, radiology and cancer MDT reporting systems to compare interval from date of endoscopy to date of CT, and to date of MDT discussion – pre- and post-implementation of the pathway. Patients who underwent endoscopy in December 2014 were excluded, as the service was being introduced.

Results

There were 204 and 283 patients found to have new possible malignancy at endoscopy in 2013–2014 (pre-implementation of service pathway) and 2015–2017 (post-implementation), respectively. The median (and mean) days awaiting staging CT and MDT discussion prior to the pathway were 12.0 (11.1) days and 15.0 (15.5) days, respectively (Table 1). Since the implementation of the pathway, median (and mean) days for staging CT were 0.0 (2.2) days and MDT discussion were 7.0 (7.3) days ($p < 0.01$) (Table 2). The median days saved waiting for a CT staging and MDT discussion after implementation of the pathway were 12.0 and 8.0 days.

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Table 1. Time to computed tomography staging and multidisciplinary team discussion

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|-------------------------------------|-------------|-------------|-----------|-----------|-----------|
| n | 109 | 95 | 104 | 101 | 78 |
| Time to CT median days (mean days) | 12.0 (11.4) | 12.0 (10.7) | 0.0 (1.6) | 0.0 (2.7) | 0.0 (2.2) |
| Time to MDT median days (mean days) | 15.0 (15.4) | 15.0 (15.5) | 6.0 (7.2) | 7.0 (7.4) | 7.0 (7.4) |

CT = computed tomography; MDT = multidisciplinary team.

Conclusion

Same day staging CT post-endoscopy has eradicated the median waiting time for CT from 12.0 days. This has resulted in a statistically significant reduction in median time to MDT discussion by 8.0 days.

The patient pathway implemented by our organisation has helped shorten decision time for MDT outcomes and is highly effective in improving patient care. Patients are diagnosed and staged quickly, requiring fewer visits to the hospital (thus reducing costs), and they start their treatment earlier. This in turn reduces the risk of breaches in cancer pathways.

Table 2. Time to computed tomography and multidisciplinary team discussion pre- and post-implementation

| | n | Time to CT median days (mean days) | Time to MDT median days (mean days) |
|---------------------------------|-----|------------------------------------|-------------------------------------|
| 2013–2014 (pre-implementation) | 204 | 12.0 (11.1) | 15.0 (15.5) |
| 2015–2017 (post-implementation) | 283 | 0.0 (2.2) | 7.0 (7.3) |
| Delta (median days) | - | 12.0 | 8.0 |

CT = computed tomography; MDT = multidisciplinary team. $p < 0.01$.

In the 3 years post-implementation at KGH, the service pathway has also been found to be a sustainable service despite the increased demand on radiology services from acute inpatient admissions, increasing outpatient and general practitioner imaging requests, and suspected cancer pathways. We commend this service to other endoscopy/radiology departments throughout

the country and suggest implementation elsewhere would yield similar outcomes. ■

Conflict of interest statement

None declared.