IS THE QUALITY OF A COLONOSCOPY AFFECTED BY THE DAY OF THE WEEK?

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Introduction In 2016 the BSG and JAG published the ‘key performance indicators and quality assurance standards for colonoscopy’. This includes a series of measures that can be used to assess endoscopy standards and ensure that there is a high level of practice. With a greater demand for colonoscopies and weekend lists, our study aimed to assess whether these standards are affected by the day of the week the exam is performed on.

Methods Data was collected for 494 patients between January 2019 and March 2019 using our electronic booking calendar and reporting software (EPR and Unisoft). Our four outcome measures were: caecal intubation, polyp detection and whether or not greater than 50mcg of Fentanyl or 2mg of Midazolam had been used for sedation. These are all standards included in the BSG/JAG guidance highlighted above. Our six independent variables were the days of the week that colonoscopy is currently performed on, Monday through to Saturday. The statistical analysis began with descriptive statistics, including a Chi-Squared test, followed by a multivariate logistic regression, all using the SPSS statistical programme.

Results In our Chi-squared analysis, Polyp detection (p<0.001) and the amount of Midazolam given (p<0.001) were not independent of the day of the week, whereas both caecal intubation and the amount of fentanyl given were. Following on from this, in the multivariate analysis, we have shown that you are significantly (p<0.05) less likely to have a polyp detected on a Monday (adjusted OR = 0.44, 95% CI 0.21-0.89), Friday (0.31, 0.14-0.72) and Saturday (0.43, 0.21-0.88). You are significantly (p<0.01) more likely to be given greater than 2mg of Midazolam on a Tuesday (adjusted OR = 3.13, CI 1.33-7.4), Friday (3.51, 1.37 - 9.02) and Saturday (4.03, 1.65 - 9.84).

Conclusions Our results suggest that caecal intubation rate is consistent irrespective of the day of the week, however, colonoscopy standards are affected. We have shown that you are less likely to have a polyp detected and more likely to be given greater amounts of Midazolam on some days compared to others. For both groups Friday and Saturday were the most strongly associated with a poor outcome, suggesting that there may be a ‘weekend effect’ in colonoscopy standards. Two limitations of the study are that we cannot account of individual patients to receive an OPA or undergo STT assessment. We then asked our UGI CNS to state, for each patient, what they would have done (i.e. request an OPA or arrange STT assessment). This was blinded – our CNS was unaware which option the triage consultant had chosen. We then recorded – regardless of whether our CNS and the consultant had agreed with regards to OPA vs STT assessment – whether or not the investigations eventually requested via OPA were nonetheless in keeping with the STT investigations our CNS suggested.

Results During February 2019, there were 164 target referrals to Barnet and Chase Farm Hospitals (BCFH) during a 1-month period (February 2019); each was triaged by a Gastroenterology consultant, who assigned patients to receive an OPA or undergo STT assessment. We then asked our UGI CNS to state, for each patient, what they would have done (i.e. request an OPA or arrange STT assessment). This was blinded – our CNS was unaware which option the triage consultant had chosen. We then recorded – regardless of whether our CNS and the consultant had agreed with regards to OPA vs STT assessment – whether or not the investigations eventually requested via OPA were nonetheless in keeping with the STT investigations our CNS suggested.

Results Of 156 referrals analysed, our UGI CNS agreed with the triage consultant’s choice of OPA vs STT investigation in 63.5% (n=99).

We also assessed whether our CNS agreed with the consultant’s choice of investigations (whether requested via an OPA or the STT pathway). Here, we excluded a further 8 cases due to lack of available data. Of 148 referrals included in this subsequent analysis, there was 93.9% (n=139) agreement as regards the investigations chosen by our CNS and the triage consultant.

Conclusions Whilst our UGI CNS agreed with the consultant selection of OPA vs STT investigation in only 63.5% of cases, they ultimately selected the same investigations in 93.9% of cases. This corroborates the notion that often, an OPA is unnecessary prior to investigation, and may not be required at all. These findings strongly support having a dedicated UGI CNS to triage target referrals. Benefits include streamlining of the process, faster outcomes for patients, monetary savings, and reduced demand for OPA slots.