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#### PREDICTING FAILURE OF MEDICAL MANAGEMENT IN IBD PATIENTS- DATA FROM THE 3RD ROUND UK IBD **AUDIT**

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Introduction The value of admission clinical parameters and therapies to predict inpatient treatment failure is poorly defined. We used data collected in the 3rd Round UK Inflammatory Bowel Disease (IBD) Audit to determine whether number of previous hospital admissions with IBD and outpatient drug therapy predicted surgery after a failure of medical treatment.

Methods Retrospective patient data from 198 UK sites were collected using an online form with up to 40 patients per site. Inclusion criteria were age >17 years, admission date from September 2010-August 2011 and a discharge diagnosis of IBD. Relevant ICD10 and OPCS codes were provided. Data items collected included number of admissions to hospital with IBD in the previous 2 years and outpatient drug therapy on admission. Our outcome was surgery due to treatment failure and a logistic regression model was fitted using both forward and backwards stepwise modelling to find independent predictors.

Results There were two statistically valid models which could be used to predict surgery. In both models the number of admissions in the last 2 years was a statistically significant predictor of surgery. Two admissions doubled the risk (OR 1.97, 95% CI 1.17 to 3.32) and three or more admissions increased it further (OR 2.62, 95% CI 1.61 to 4.26). In one model the number of different drugs being taken (corticosteroids (CS), immunosuppressives (IS), anti-TNF (aTNF)) was a predictor and in the other the use of CS and the use of aTNF were both significant independent predictors instead of number of drugs. Other treatments were looked at but were not independent predictors. Taking one drug on admission was associated with a doubling of risk (OR 1.93 95% CI 1.15 to 3.24), two drugs trebled (OR 3.01 95% CI 1.78 to 5.10) and three or more quadrupled (OR 4.10 95% CI 2.08 to 8.05) the risk. Alternatively CS doubled the risk and aTNF trebled the risk with OR 1.73 and 2.96 respectively.

**Conclusion** This data shows that the number of previous admissions to hospital can be used as an easy prognostic indicator to better inform patients of their risk of requiring surgery for a failure of medical management after admission to hospital. In addition there is relationship between the risk of surgery and taking CS and aTNF, this probably reflects disease severity, but might also be used to guide patient management. Further analysis is being carried out to find other predictors.

Abstract PMO-259 Table 1 Model for predicting risk of surgery

	OR	95% CI
No drugs (p<0.001)	1.00	Reference group
1 drug	1.93	1.15 to 3.27
2 drugs	3.01	1.78 to 5.10
≥3 drugs	4.09	2.08 to 8.05
No admissions (p<0.001)	1.00	Reference group
1 admission	1.31	0.83 to 2.07
2 admissions	1.97	1.17 to 3.32
3 admissions	2.62	1.61 to 4.26

Competing interests None declared.

## PMO-260 BONE PROTECTION IS UNDER USED IN IBD PATIENTS: DATA FROM THE 3RD ROUND UK IBD AUDIT

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Introduction BSG guidelines recommend that supplementation of calcium and vitamin D is given when systemic steroid use is necessary and that co-administration of bisphosphonates with steroids is given for patients aged over 65 years or with known osteoporosis/osteopenia. Data collected in the 3rd Round UK IBD audit were used to determine whether these guidelines were followed.

**Methods** Retrospective patient data from 198 sites of up to 40 patients per site were collected using an online form. Inclusion criteria were age >17 years at the date of admission with a discharge diagnosis of IBD from September 2010 to August 2011. A list of relevant ICD10 and OPCS codes was provided to aid patient identification. Data items collected in UC and CD included the number of patients discharged taking corticosteroids (CS) and bone protective agents. In CD only data were collected on CS and bone protective agent use in the outpatient setting. Statistical analysis used Fishers exact test to generate two-tailed p values.

Results Bone protective agents are underused. Bone protective agents were more likely to be used in UC patients discharged on steroids than in CD (UC: 66.2%, 1443/2181; CD: 58.7%, 1022/1742, p=0.021). Among 600 CD outpatients prescribed steroids for >3 months in the previous year 404 (67.3%) also received bone protection; this was not significantly different to inpatient care of CD patients (p=0.07). Of 600 outpatients who had received steroids for over 3 months in the last year 132 (22.2%) had a DEXA scan.

Conclusion Compliance with BSG guidelines regarding the use of bone protection for patients taking steroids is poor. Only 2/3 of IBD inpatients discharged on steroids were given bone protective agents. This figure is similar to patients treated in the outpatient setting. Approximately 1/5 CD patients who received a course of steroids in the outpatient setting also had a DEXA scan. Unfortunately further information was not available in order evaluate whether these patients were risk stratified for fragility fractures. It remains unclear why bone protection was significantly better prescribed in UC patients than CD. Further analysis of this data with logistic regression is needed in order to see whether other factors are influencing these results. Clinicians are further encouraged to prescribe bone protection for these patients. Bone protective measures must be promoted and hopefully the culture of prescribing can be changed for the better.

Competing interests None declared.

# REFERENCE

Mowat C, Cole A, Windsor A, et al. Guidelines for the management of inflammatory bowel disease in adults. Gut 2011. doi:10.1136/gut.2010.224154.

### PMO-261 IS CROHN'S DISEASE IN THE UK BEING UNDER TREATED? DATA FROM THE 3RD ROUND UK IBD AUDIT

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Introduction The British Society Gastroenterology (BSG) guidelines for Inflammatory Bowel Disease (IBD) advise escalating treatment

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to immunosuppressives (IS) in severe relapsing disease and cases requiring repeated corticosteroids (CS). Anti-TNF (aTNF) therapy is recommended as 2nd line therapy. We used data collected in the 3rd Round UK IBD Audit to see how newly diagnosed and established patients with IBD are treated following hospital admission.

**Methods** Retrospective patient data from 198 UK sites were collected using an online form with up to 40 patients per site. Inclusion criteria were age >17 years, admission date from September 2010 to August 2011 and a discharge diagnosis of IBD. Relevant ICD10 and OPCS codes were provided. Data items collected included established/new diagnosis of IBD and drug treatment on discharge from hospital following admission with active disease. Incomplete data were excluded. Statistical analysis used Fishers exact test.

**Results** Approximately 15%–20% newly diagnosed IBD patients are discharged with IS and/or aTNF therapy (CD 19.4%, 67/345; UC 15.0%, 63/420, p=0.18). Treatment patterns for established and

newly diagnosed IBD patients are broadly similar but established CD patients are more frequently discharged with IS and/or aTNF compared with established UC (CD 52.1%, 924/1773; UC 39.8%, 638/1602, p<0.0001). 1/4 newly diagnosed CD patients are discharged on no treatment, significantly less than in UC (CD 26.4%, 91/345, UC 10.7%, 45/420, p<0.0001). Patients with established CD are twice as likely to be discharged on IS combined with aTNF compared with established UC (CD 12.5%, 221/1773; UC 5.5%, 88/1602, p<0.0001).

**Conclusion** The treatment of new IBD in the UK is relatively aggressive with 15% of UC and 20% of CD patients discharged after their first admission with IS or aTNF therapy. This is in contrast to those with established IBD. Only 50% of established CD patients are on IS or aTNF. Effective control of inflammation may prevent long term complications and there may be room for improvement with these patients.

Competing interests None declared.

#### Abstract PMO-261 Table 1

Drug treatment	No Rx	CS	IS	aTNF	CS + IS	CS + aTNF	CS + aTNF + IS	IS + aTNF	Total
Treatment on discha	arge of patients wit	th a NEW diagnosis	of IBD						
CD (%)	91 (26.4)	<b>187</b> (54.2)	6 (1.7)	1 (0.3)	<b>26</b> (7.5)	23 (6.7)	9 (2.6)	2 (0.6)	345
UC (%)	<b>45</b> (10.7)	<b>312</b> (74.3)	4 (1.0)	0	38 (9.0)	<b>12</b> (2.9)	9 (2.1)	0	420
p Value	а	0.0074	0.2	а	0.52	0.023	0.64	а	
Treatment on discha	arge of patients wit	th an ESTABLISHED	diagnosis of IBD						
CD (%)	<b>310</b> (17.5)	<b>539</b> (30.4)	<b>124</b> (7.0)	<b>67</b> (3.8)	403 (22.7)	<b>109</b> (6.1)	<b>162</b> (9.1)	<b>59</b> (3.3)	1773
UC (%)	<b>171</b> (10.7)	<b>793</b> (49.5)	<b>32</b> (2.0)	<b>6</b> (0.4)	<b>457</b> (28.5)	<b>55</b> (3.4)	<b>78</b> (4.9)	<b>10</b> (0.6)	1602
p Value	а	а	а	а	0.0032	0.0005	a	a	

**KEY:** No Rx=No treatment with CS or aTNF or IS. aTNF=A plan for aTNF as outpatient. a=p<0.0001.

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