

## Introduction

In order to achieve efficient and effective colonoscopy patients require adequate bowel preparation (BP). Inadequate BP results in missed lesions (polyps, adenoma's, cancer) and failed colonoscopy (1,2). For complete mucosal visualisation and optimised colonoscopy quality, appropriate mechanical bowel preparation (MBP) prescription and patient compliance with MBP regime are required prior to performance of colonoscopy. Poor patient compliance with MBP is a well recognised contributor to inadequate BP. Outpatient colonoscopy is the gold standard screening test for colorectal cancer however few studies have looked at the pre-procedural compliance rates with bowel cleansing agent and fasting recommendations in this setting.

## Aim

Quantify patient compliance with pre-colonoscopy bowel preparation guidance in an outpatient setting. Inclusive both adherence to MBP and pre-procedure fasting recommendation. Determine potential predictors of poor compliance.

## Method

A cross-sectional prospective survey design was employed enrolling 45 patients. The data retrieval tool was a bespoke pre-piloted questionnaire focused on quantification of compliance with MBP and identifying degree of fasting recommendation adhered to. This tool can be seen in *figure 1*. For analysis data was dichotomised into "compliant" or "non-compliant"

For inclusion in the compliant group:

- >90% of liquid laxative had to have been consumed in two separate doses.
- Clear liquid diet for > 24 hrs prior to colonoscopy.

Each patient was interviewed by the primary investigator using this questionnaire prior to colonoscopy

Figure 1.

Which bowel cleansing agent were you prescribed? (See below)  
 Movi Prep  Klean Prep  Picolax  Other please specify \_\_\_\_\_

Have you read the instructions about taking the bowel preparation?  
 Yes  No

Did you understand these directions?  
 Yes  No

What day and time did you commence taking the bowel preparation? (If split dose fill in both lines)  
 Day before scope  Time \_\_\_\_\_  
 Day of scope  Time \_\_\_\_\_

What time did you finish taking the bowel preparation? (If split dose fill in both lines)  
 Day before scope  Time \_\_\_\_\_  
 Day of scope  Time \_\_\_\_\_

How much of the bowel preparation did you take? (If split dose fill in both lines) Circle as appropriate

Yesterday:	100%	90%	75%	50%	25%	0%
Today:	100%	90%	75%	50%	25%	0%

Fasting since? \_\_\_\_\_

## Results

Comprehension of pre-colonoscopy directions was 100%. Compliance with bowel cleanser was 88.9% (40 patients). Compliance with fasting was 87% (39 patients). Previous colonoscopy was significantly associated with fasting guidance compliance (p= 0.031). 25 patients had ≥1 previous colonoscopy, of these 6 were non-compliant with fasting guidance. Of the 20 patients who had no previous colonoscopy 100% compliance was recorded. Previous colonoscopy and MBP compliance were not significantly associated p= 0.791. No significant association with MBP compliance existed within the variables analysed (p> 0.05). *Figure 2. below demonstrates the demographics relative to MBP compliance.*

Figure 2.

Bowel Cleanser Compliance	Total n1=45	Compliant n2=40	Non-compliant n3=5	p-value
Sex	(% of n1)	(% of n2)	(% of n3)	
Male	15 (33)	15 (37.5)	0	0.153
Female	30 (66)	25 (62.5)	5 (100)	
Age- Mean (Std.Dev)	55.6 (15.1)	55.8 (14.4)	53.4 (22.3)	0.74
Ethnicity				
Caucasian	41 (91)	37 (92.5)	4 (80)	0.387
Asian	4 (9)	3 (7.5)	1 (20)	
Distance travelled (km)				
<50	33 (73)	30 (75)	3 (60)	0.336
50-75	5 (11)	3 (7.5)	2 (40)	
75-100	3 (6.6)	3 (7.5)	0	
100-125	3 (6.6)	3 (7.5)	0	
125-150	0	0	0	
>150	1 (2.2)	1 (2.5)	0	
Previous scope				
0	20 (44)	17 (42.5)	3 (60)	0.791
1	19 (42.2)	17 (42.5)	2 (40)	
>1	6 (13)	6 (15)	0	
Comprehension	45 (100)	40 (100)	5 (100)	
Dosing Regimen				
Split dose	30 (66)	28 (70)	2 (40)	0.315
Non-split dose	15 (33)	12 (30)	3 (60)	
Indication				
Anaemia	5 (11)	4 (10)	1 (20)	0.417
FH	6 (13)	5 (12.5)	1 (20)	
F/up	14 (31)	14 (35)	0	
Blood PR	4 (8.9)	3 (7.5)	1 (20)	
FIT +	3 (6.6)	3 (7.5)	0	
ABH	11 (24.5)	9 (22.5)	2 (40)	
Abdo pain	2(4.4)	2 (5)	0	

## Conclusion

Compliance with pre-colonoscopy guidance is high in the analysed population. A certain degree of fidelity exists in other outpatient compliance studies conducted in line with this study. Adequate BP has led to colonoscopy being primarily used as an outpatient study. An opportunity for compliance education may exist for those attending repeat colonoscopy.

## References

- Sulz M, Kröger A, Prakash M, Manser C, Heinrich H, Misselwitz B. Meta-Analysis of the Effect of Bowel Preparation on Adenoma Detection: Early Adenomas Affected Stronger than Advanced Adenomas. PLOS ONE. 2016;11(6):e0154149.
- Clark B, Rustagi T, Laine L. What Level of Bowel Prep Quality Requires Early Repeat Colonoscopy: Systematic Review and Meta-Analysis of the Impact of Preparation Quality on Adenoma Detection Rate. The American Journal of Gastroenterology. 2014;109(11):1714-1723