

Buscopan Use In Endoscopy – Full Clinical Guideline

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1. Aim and Purpose

This Clinical Guideline guides the use of Buscopan during GI endoscopy for adult patients in Royal Derby Hospital

2. Keywords

Colonoscopy

Endoscopy

Buscopan .

3. Guideline

The MHRA has recently circulated a Drug Safety Update regarding the risk of serious adverse events following the use of intravenous Hyoscine Butylbromide (Buscopan) in patients with underlying cardiac disease.¹

Uses of Buscopan during GI Endoscopy	
Colonoscopy	On withdrawal to improve adenoma detection
	To increase success in Terminal Ileum Intubation
	To reduce sigmoid spasm, particularly in presence of diverticular disease
OGD	Prior to remove of obstructive food bolus
	Therapeutic endoscopy to reduce peristalsis
EUS	Can be used during duodenal / HPB EUS
ERCP	Routine unless contra-indicated

Buscopan is commonly used during endoscopic procedures. It induces smooth muscle relaxation and reduces spasm in the gastrointestinal tract. It is used during upper GI Endoscopy and small bowel enteroscopy to reduce contraction and aid mucosal visualisation.² During endoscopic retrograde cholangiopancreatography, it is used to facilitate access to the common bile duct during cannulation of the Ampulla of Vater.³ During colonoscopy, it is used to reduce haustral definition to optimise mucosal visualisation and lesion detection.⁴

A recent survey of British gastroenterologists showed that 160/187 (85.6%) sometimes or always use Buscopan during colonoscopy.⁵ The benefits of Buscopan during colonoscopy have been demonstrated in a number of retrospective and prospective studies. In the English Bowel Cancer Screening Programme, intravenous Buscopan use was associated with a 30% increase in adenoma detection.⁶ Other data provide conflicting conclusions on whether Buscopan confers a benefit in terms of lesion detection.⁷⁻¹⁰ Improved insertion time and ease of ileal intubation have been observed.¹¹ A meta-analysis of available studies of Buscopan use concluded that it may provide marginal improvement in adenoma detection rate and polyp detection rate however heterogeneity in the available data precluded firm conclusions.¹²

To date, the main perceived contraindication to Buscopan use considered by gastroenterologists has been glaucoma, however, Buscopan is considered safe in open-angle glaucoma and also in patients with closed-angle glaucoma who have had iridectomy. Rarely, Buscopan can precipitate undiagnosed previously asymptomatic acute closed angle glaucoma. Patients should be advised to seek urgent ophthalmological advice if eye symptoms (painful red eye) develop following administration of Buscopan.

Endoscopists should be aware of other potential harmful effects of Buscopan, in particular tachycardia and hypotension caused by its anticholinergic action. The Drug Safety Update reports nine patients who died after receiving hyoscine butylbromide injection; in most of these cases the adverse reactions were reported as acute myocardial infarction or cardiac arrest. Anaphylactic reaction to Buscopan has also been reported. The safety update emphasises that tachycardia, hypotension or anaphylaxis can be more serious in patients with underlying cardiac disease such as heart failure, coronary heart disease, cardiac arrhythmia or hypertension. It is advisable to avoid use of Buscopan during endoscopic procedures in patients who are already tachycardic and usually avoid in those with significant cardiac comorbidity.

In the majority of patients, Buscopan use is usually safe and there are significant potential beneficial effects, particularly in terms of increased lesion detection. Endoscopists should exercise caution when using Buscopan in patients with existing cardiac comorbidity and monitoring of heart rate should be undertaken with local policies reflecting these considerations.

Summary

- Buscopan can be used for patients with open angle Glaucoma and narrow angle Glaucoma treated with a iridectomy. It should not be used for patients with suspected narrow angle glaucoma undergoing investigation, or for known narrow angle glaucoma where the patient has not undergone a iridectomy.
- Buscopan should not be administered where the patient has a tachycardia (HR>100)
- Buscopan should be used with caution where the patient has significant cardiac comorbidity, particularly where patient has omitted to take cardiac medication “on the day” especially beta blockers
- Buscopan is contraindicated for patients with Myasthenia Gravis

4. References (including any links to NICE Guidance etc.)

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5. Documentation Controls

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