

Kent and Medway ICB Position Statement – Gastro-intestinal (GI) Anti-spasmodics – Dicycloverine and Propantheline prescribing not supported

Kent and Medway ICB does **not** support the prescribing of dicycloverine (or propantheline for GI smooth muscle spasm).

Dicycloverine and propantheline are NON-FORMULARY and not recommended for prescribing. Dicycloverine is poorly selective and both drugs are more likely to cause antimuscarinic effects. There are lower cost alternatives with relatively fewer adverse effects. There is also insufficient evidence to demonstrate a significant difference in effectiveness between the anti-spasmodics. Consider alternative safer, more cost-effective options.

Recommendations:

- Review existing dicycloverine and propantheline prescribing. Consider STOPP criteria listed in BNF dicycloverine monograph, anticholinergic burden and manufacturer’s SmPC cautions and contraindications.
- Comprehensive trials of the other formulary antispasmodics should be attempted and if necessary, refer to a specialist to exclude underlying disease and advise on anti-spasmodic choice.
- Formulary status of GI Anti-spasmodics:
 - 1st line – mebeverine, alverine
 - 2nd line – hyoscine butylbromide, peppermint oil capsules.
 - Dicycloverine and propantheline are ‘not recommended’ and NON FORMULARY” in Kent and Medway ICB.

Cost of a 28 day supply of dicycloverine tablets varies between £178.30 (10mg TDS) to £226.60 (20mg TDS) depending on dose (and £356.61 if 10mg tablets are used TDS for a 20mg dose) and for propantheline 15mg tablets £15.55 (15mg TDS) to £41.48 (total daily dose of 120mg).

Whereas a 28 day supply of mebeverine is £5.51, alverine (60-120mg TDS) £2.74-5.48, hyoscine butylbromide (10mg TDS to 20mg QDS) £5.75 - £15.32, peppermint oil caps (1-2 capsules TDS) £7.04 - £14.08. ¹

- NICE CG61 and CG147 do not specify a particular anti-spasmodic in IBS or diverticular disease.^{2,3}
- The NICE CKS-IBS states:

“Antispasmodic drugs may be used as required for abdominal pain or spasm in irritable bowel syndrome (IBS). Drug options include: Direct-acting smooth muscle relaxants such as mebeverine hydrochloride (immediate-release or modified-release), alverine citrate, and peppermint oil. These drugs are less likely to cause adverse effects compared with antimuscarinics such as hyoscine butylbromide and dicycloverine.”⁴
- The BNF entry for dicycloverine cites STOPP criteria under cautions:

“Elderly In adults:
Prescription potentially inappropriate (STOPP criteria):

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- to treat extrapyramidal side-effects of antipsychotic medications (risk of antimuscarinic toxicity)
- with delirium or dementia (risk of exacerbation of cognitive impairment), narrow-angle glaucoma (risk of acute exacerbation of glaucoma), or chronic prostatism (risk of urinary retention)
- if two or more antimuscarinic drugs prescribed concomitantly (risk of increased antimuscarinic toxicity)”⁵

in addition to other cautions and contraindications.

- The anticholinergic burden score, assessed using [Medichec](#), is 2 for dicycloverine (dicyclomine), 2 for propantheline and 1 for hyoscine butylbromide. The BNF states that of the antimuscarinic antispasmodics, hyoscine butylbromide is less likely to cross the blood brain barrier and therefore will have a lower risk for central nervous system side-effects.

References:

1. NHS BSA. Drug Tariff. Accessed on line 25/8/23.
2. NICE CG61. Irritable bowel syndrome in adults: diagnosis and management. Recommendations | Irritable bowel syndrome in adults: diagnosis and management | Guidance | NICE . Accessed 5.6.23.
3. NICE CG147. Diverticular disease: diagnosis and management. Overview | Diverticular disease: diagnosis and management | Guidance | NICE. Accessed 5.6.23
4. NICE CKS. Irritable Bowel Syndrome. Irritable bowel syndrome | Health topics A to Z | CKS | NICE . Accessed 5.6.23.
5. BNF. Dicycloverine hydrochloride | Drugs | BNF | NICE Accessed on line on 5.6.23.