Review of probiotic therapy, including VSL#3® for ileaonal-pouchitis (DROP-List)

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This briefing provides an overview of the information in the PrescQIPP DROP-List (Drugs to Review for Optimised Prescribing) bulletin on probiotics. It focuses on reviewing prescribing of probiotics (including VSL#3®) and discontinuing therapy, particularly if ACBS prescribing criteria is not met for VSL#3®. Further bulletins, including the DROP-List itself[1] are available on the PrescQIPP website.

Background

In the UK the estimated number of people with a diagnosis of ulcerative colitis (UC) is around 146,000.[2] Their lifetime risk for surgery may be as high as 20-30%.[3] An ileal pouch is a surgically created chamber using the small intestine. When the lining of the pouch becomes inflamed, the condition is known as pouchitis[4] - up to 50% of patients suffer this. Symptoms include urgency, tenesmus, increased frequency and looseness of stools, with or without bleeding and fever and systemic upset.

Recommendations

- Ensure that prescribing of VSL#3® is in line with the Advisory Committee on Borderline Substances (ACBS) approved indication i.e. for the use under the supervision of a physician, for the maintenance of remission of ileoanal pouchitis induced by antibacterials in adults.[5] (So after an intense course of antibiotics has induced remission of pouchitis.)
- The dose is one to four sachets daily depending upon the number of bowel movements per day.[4,6]
- The product information recommends taking VSL#3® for at least one month to allow for colonisation of the gut to become stable.[4]
- Review all patients on probiotics:
  - » Check the indications for using a probiotic.
  - » Advise any patients (including those who don't meet the ACBS approved indication for VSL#3®) to purchase probiotics over-the-counter (OTC), if they wish to try them. However, ensure patients understand there is a lack of evidence supporting a benefit of probiotics in any other indication.
  - » Regularly review effectiveness of VSL#3® in those patients who meet the ACBS criteria. Consider stopping therapy where there is insufficient clinical benefit.

Costs and savings

In England over £872,500 was spent on all probiotics over the course of a year - VSL#3® is the most commonly prescribed (ePACT May 14). Considerable savings can be achieved from reviewing probiotic therapy.

Prescribing 80% less VSL#3® and other probiotics would save over £698,000 in England over 12 months.

If prescribing of probiotics stopped completely, this could release savings of up to £872,500 in England over 12 months.

This equates to savings of £1,235 per 100,000 patients for 80% less prescribing and £1,544 per 100,000 patients if prescribing stopped completely.

Supporting evidence

In a small study partially supported by VSL Pharmaceuticals Inc, Mimura et al evaluated the effectiveness of a single daily high dose probiotic in maintaining antibiotic-induced remission in patients with recurrent or refractory pouchitis. They randomised 20 patients to VSL#3® treatment and 16 to placebo. Remission was maintained at one year in 17 patients (85%) on VSL#3® and in one patient (6%) on placebo ($p<0.0001$). One patient withdrew from the trial due to side-effects (abdominal cramps, vomiting, diarrhoea). All patients in this study had previous recurrent or refractory pouchitis and achieved remission after four weeks of intense antibiotic therapy. The authors conclude that VSL#3® is effective in maintaining antibiotic induced remission for at least a year.[7]

Sinagra et al reviewed the current literature for probiotics, prebiotics and symbiotics in inflammatory bowel diseases (IBD). The benefit of probiotics remains unproven in Crohn's disease and UC. In pouchitis, small controlled trials suggest a benefit from VSL#3® in the primary and secondary prevention of pouchitis. In IBD-associated conditions, a benefit of probiotics remains unproven. Well-designed randomised control clinical trials are necessary to understand the role of these agents.[8]

References

1. PrescQIPP DROP-List. Bulletin available at www.prescqipp.info
2. National Institute for Health and Care Excellence (NICE).Clinical Guideline 166. Ulcerative colitis: Management in adults, children and young people. June 2013. Accessed at www.nice.org.uk/nicemedia/live/14189/64216/64216.pdf on 9th June 2014.
3. Van Assche G, Dignass A, Bokemeyer B et al. Second European evidence-based consensus on the diagnosis and management of ulcerative colitis: special situations. Journal of Crohn's and Colitis 2013; 7 (1): 1-33. http://www.ecco-jccjournal.org/article/S1873-9946(12)00406-0/fulltext
4. VSL#3® Product information. Ferring Pharmaceuticals. Healthcare Professionals section accessed at http://www.vsl3.co.uk/hcp/medical_information.php on 16th June 2014.
5. Joint Formulary Committee. British National Formulary. 66th ed. London: BMJ Publishing Group and Royal Pharmaceutical Society. Appendix 2 Borderline substances. A2.5.1 Special additives for conditions of intolerance.
6. MIMS app June 2014. Haymarket Publishing, London.
7. Mimura T, Rizello F, Helwig U et al. Once daily high dose probiotic therapy (VSL#3®) for maintaining remission in recurrent or refractory pouchitis. Gut 2004; 53: 108-114.
8. Sinagra E, Tomasello G, Capello F. Probiotics, prebiotics and symbiotics in inflammatory bowel diseases: state of the art and new insights. J Biol Regul Homeost Agents 2013; 27 (4): 919-33.

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