GMMMG Clinical Recommendation

The Greater Manchester Medicines Management Group does not recommend the use of probiotics for the prevention and treatment of diarrhea of any cause.

There is currently insufficient clinical evidence to support prescribing of probiotics within the NHS for the above indication. However individual Trusts may wish to consider trialling the use of probiotics as part of internal protocols in an attempt to reduce C.difficile rates for at-risk in-patients. GMMMG would encourage Trusts to audit results if probiotics are used in this way. Please note primary care prescribing is not recommended.
The group supports the recent HPA C.difficile guidance and the NICE CG 84 recommendation that probiotics cannot be recommended currently and that "Good-quality randomised controlled trials should be conducted in the UK to evaluate the effectiveness and safety of specific probiotic using clearly defined treatment regimens and outcome measures before they are routinely prescribed."

Background

- Probiotics have been defined as "live micro organisms that when administered in adequate quantities confer a health benefit on the host".
- Probiotics may work by altering the intestinal micro flora by increasing the beneficial anaerobic bacteria and decreasing the potentially pathogenic micro organisms.
- Much of the proposed clinical application of probiotics is based on extrapolation and conjecture. No mechanisms of actions have been established in efficacy studies, particularly in the case of CDAD.
- Probiotics are considered to be well tolerated and safe although concerns have been raised about their use in immunosuppressed patients.
- The studies in this area focus on select populations making generalisation to other populations questionable. There are few methodologically sound studies, most have small sample sizes and the randomisation and allocation concealment is not always clear.
- A review by the Health Protection Agency (2013) concluded that meta-analyses in the area have failed to demonstrate statistically any significant efficacy in treating or preventing Clostridium difficile infection (CDI) and at present do not recommend the use of probiotics for the prevention of Antibiotic Associated Diarrhoea (AAD) or CDI.
- A subsequent systematic Cochrane review examining probiotics for the treatment of CDI in adults concluded that "there was insufficient evidence to support the use of probiotics, alone or in combination with antibiotics for the treatment of C. difficile infection"
- In addition there is no conclusive evidence that any one particular probiotic is effective at preventing and treating CDAD.

Review Date: June 2017

References:
1. National Clostridium difficile Standards Group (2003) *National Clostridium difficile Standards Group Report to the Department of Health February 2003.* Health Protection Agency
2. Pillai, A. and Nelson, R.L. (2008) *Probiotics for treatment of Clostridium difficile-associated colitis in adults (Cochrane Review).* The Cochrane Library.
3. NICE CG84: Diarrhoea and vomiting in children under 5 (2009).
4. Updated guidance on the management and treatment of Clostridium difficile infection, Health Protection Agency (May 2013)