Overview of scientific studies with Ecologic® AAD

Author	Publication	Ecologic® AAD included in:
Guarner *et al*, 2017	WGO Practice Guideline - Probiotics and Prebiotics	Evidence-based adult indications for probiotics, prebiotics, and synbiotics in gastroenterology, Antibiotic associated diarrhea
Agamennone *et al*, 2018	A practical guide for probiotics applied to the case of antibiotic-associated diarrhea in The Netherlands (Nationale Gids voor probiotica bij antibiotica)	List of recommended probiotic products

Although antibiotics are life saving medication, their use has profound effect on the composition and functionality of the intestinal microbiota. This can cause side effect like antibiotic associated diarrhoea (AAD), nausea, vomiting and an increased infection risk. In addition there is growing evidence that these antibiotic-induced changes, especially in early age, play an essential role in developing several chronic disorders later in life.
Ecologic® AAD is a multispecies probiotic formulation specifically designed to inhibit the growth of AAD related pathogens and to restore the microbiome.
Multiple clinical studies in children, adults and the elderly have shown that Ecologic® AAD can reduce antibiotic-associated side effects. The tables below summarize the clinical studies performed with Ecologic® AAD. In addition, Ecologic® AAD is included in the global guidelines of the World Gastroenterology Organisation (WGO) and in their Global Guidelines and in the National Guide to clinically proven probiotics in antibiotic use.

All studies performed with Ecologic® AAD on the prevention or reduction of antibiotic associated diarrhoea and microbiota recovery after antibiotic use.

Study	Design	Method	Product	Result
Randomised clinical trial: multispecies probiotic for the prevention of antibiotic-associated diarrhoea in children **Łukasik, J., *et al*, 2022**	**RCT**	**350** Children receiving broad-spectrum antibiotics start antibiotics cessation of probiotics **7 days** **14 dagen** start probiotics / placebo cessation of probiotics / placebo	2x 2 gram ($1x10^{10}$ CFU) **Ecologic® AAD*** *slightly modified formulation	**Significant reduction** of AAD in the probiotic group ↓ **38%**
Multispecies probiotics promote perceived human health and wellbeing: insights into the value of retrospective studies on user experiences **van der Geest, A.M., *et al*, 2021**	**retrospective user trial**	**112** Ecologic® AAD users start antibiotics **7 days** start probiotics cessation of probiotics	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD**	**Reduction of AAD** when consumed for antibiotic usage (n=22) **82%** **Significant reduction of GI complaints**, most notably nausea **69% would like to continue use** **69%**

Winclove probiotics

Study	Design	Method	Product	Result
Probiotics use for antibiotic-associated diarrhea: a pragmatic participatory evaluation in nursing homes **Van Wietmarschen, H., *et al*, 2020**	**pragmatic participatory evaluation**	**120** Elderly people in care with somatic or psychogeriatric disorders start antibiotics – cessation of antibiotics – **7 days** – **14 days** start probiotics / no probiotics – cessation of probiotics	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD**	**Significant decrease in AAD** in elderly with known history of AAD: **71%** **Significant reduction** in AAD in the probiotic group: **44%**
Effect Ecologic® AAD op AAD bij ouderen (Effect of Ecologic® AAD on AAD in the elderly) **Christiaens, C., 2014 (not published)**	**user trial**	**46** Elderly people in care facility start antibiotics – cessation of antibiotics – **7 days** – **14 days** start probiotics – cessation of probiotics	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD**	**Reduction AAD**: **82%**
Probiotics in *Clostridium difficile* infection: reviewing the need for a multistrain probiotic **Hell, M., *et al*, 2013**	**retrospective case report**	**10** Patients with recurrent CDI *(Clostridium difficile* - infection*)* start antibiotics – cessation of antibiotics – **7 days** – **14 days** start probiotics – cessation of probiotics	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD (OmniBiotic 10)**	**Full recovery, no new CDI** and no adverse effects
Use of a multispecies probiotic for the prevention of antibiotic associated diarrhea. **Lang, F.C., 2010**	**open label**	**199** Patients in hospital who are taking antibiotics start antibiotics – cessation of antibiotics – **7 days** – **14 days** start probiotics – cessation of probiotics	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD (OmniBiotic 10)**	**Incidence** 1 of 199 patients developed diarrhoea **5-49%** Literature vs **0,5%** Research
Monitoring the effect of a multispecies probiotic and short term amoxycillin intake on the fecal microbiota in healthy volunteers **Koning, C.J., *et al*, 2010 (thesis)**	**RCT**	**41** Healthy volunteers start antibiotics – cessation of antibiotics – **7 days** – **14 days** start probiotics / placebo – cessation of probiotics / placebo	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD**	**Significantly better recovery** of the dominant microbiota after antibiotic use in the probiotic group after after 1 month.
The effect of a multispecies probiotic on the composition of the faecal microbiota and bowel habits in COPD patients treated with antibiotics **Koning, C.J., *et al*, 2009**	**RCT**	**45** COPD patients with acute exacerbation who use antibiotics a lot start antibiotics – cessation of antibiotics – **7 days** – **14 days** start probiotics / placebo – cessation of probiotics / placebo	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD**	**Antibiotic intake did not lead to disruption of the dominant microbiota.** Extensive use of antibiotics in the past antibiotics probably resulted in an already for a pre-existing disruption of the microbiota. **The probiotic intake had a modest effect on certain bacterial groups.** This did not lead to any no change in the microbiota composition or diarrhoea-like stools.
The effect of a multispecies probiotic on the intestinal microbiota and bowel movements in healthy volunteers taking the antibiotic amoxycillin **Koning, C.J., *et al*, 2007**	**RCT**	**41** Healthy volunteers start antibiotics – cessation of antibiotics – **7 days** – **14 days** start probiotics / placebo – cessation of probiotics / placebo	2x 5 gram ($1x10^{10}$ CFU) **Ecologic® AAD**	**Significant reduction** in diarrhoea-like stools in the probiotic group: **39%**