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As with any product on the market for consumer use, the safety of probiotic products is a major consideration. In the meta-analysis conducted by Blaabjerg et al, the researchers further analyzed ten trials reporting adverse events with probiotic use.[4] The review demonstrated that there was no statistically significant difference in the incidence of adverse events between the intervention and control group, suggesting that the use of probiotics is safe for patients without compromised immune systems. In a review conducted by Hempel et al, researchers analyzed eighty-two studies to evaluate relative risk of AAD among patients taking antibiotics and probiotics compared to those who were taking antibiotics alone; twenty-three of the probiotic studies discussed adverse outcomes and none was found.[15]

However, probiotics must be used with caution. Due to their bacterial nature, probiotics may not be appropriate for patients with compromised immune systems.[16] In addition to immunocompromised patients, other patient populations might be at risk by taking probiotics. In 2008, a study published in *The Lancet* demonstrated that adult patients with acute pancreatitis who received probiotics had an increased mortality over those who did not.[17]

Furthermore, a study based in Germany showed an increase in wheezing bronchitis in infants born to women who were treated with *Lactobacill s* during the perinatal period of their pregnancies with the intention of preventing atopic dermatitis in infants.[18]

Additionally, there are concerns over probiotic product quality. According to the National Center for Complementary and Integrative Health (NCCIH), a branch of the National Institute of Health (NIH), some probiotic products have been found to contain fewer numbers of live microorganisms or different bacterial strains than those labeled on the product. The U.S. Food and Drug Administration (FDA) has not approved any probiotics icr sj-22.117 fny ppihe National

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