

Probiotics in Preterm Infants

References

AlFaleh K, Anabrees J. Probiotics for prevention of necrotizing enterocolitis in preterm infants. Cochrane Database Syst Rev. 2014 Apr 10;(4):CD005496. doi: 10.1002/14651858.CD005496.pub4. Update in: Cochrane Database Syst Rev. 2020 Oct 15;10:CD005496. PMID: 24723255.

Athalye-Jape G, Rao S, Patole S. Effects of probiotics on experimental necrotizing enterocolitis: a systematic review and meta-analysis. Pediatr Res. 2018 Jan;83(1-1):16-22. doi: 10.1038/pr.2017.218. Epub 2017 Oct 25. PMID: 28949953.

Barbian ME, Buckle R, Denning PW, Patel RM. To start or not: Factors to consider when implementing routine probiotic use in the NICU. Early Hum Dev. 2019 Aug;135:66-71. doi: 10.1016/j.earlhumdev.2019.05.009. Epub 2019 Jun 10. PMID: 31196719; PMCID: PMC6684237.

Dermyshe E, Wang Y, Yan C, Hong W, Qiu G, Gong X, Zhang T. The "Golden Age" of Probiotics: A Systematic Review and Meta-Analysis of Randomized and Observational Studies in Preterm Infants. Neonatology. 2017;112(1):9-23. doi: 10.1159/000454668. Epub 2017 Feb 15. PMID: 28196365.

Deshmukh M, Patole S. Prophylactic Probiotic Supplementation for Preterm Neonates-A Systematic Review and Meta-Analysis of Nonrandomized Studies. Adv Nutr. 2021 Jul 30;12(4):1411-1423. doi: 10.1093/advances/nmaa164. PMID: 33460432; PMCID: PMC8321836.

Jackson SA, Schoeni JL, Vegge C, Pane M, Stahl B, et al. Improving End-User Trust in the Quality of Commercial Probiotic Products. Front Microbiol. 2019 Apr 17;10:739. doi: 10.3389/fmicb.2019.00739. PMID: 31105649; PMCID: PMC6499161.

Kane AF, Bhatia AD, Denning PW, Shane AL, Patel RM. Routine Supplementation of Lactobacillus rhamnosus GG and Risk of Necrotizing Enterocolitis in Very Low Birth Weight Infants. J Pediatr. 2018 Apr;195:73-79.e2. doi: 10.1016/j.jpeds.2017.11.055. PMID: 29402455; PMCID: PMC5869135.

Lewis ZT, Shani G, Masarweh CF, Popovic M, Frese SA, et al. Validating bifidobacterial species and subspecies identity in commercial probiotic products. Pediatr Res. 2016 Mar;79(3):445-52. doi: 10.1038/pr.2015.244. Epub 2015 Nov 16. PMID: 26571226; PMCID: PMC4916961.

Morgan RL, Preidis GA, Kashyap PC, Weizman AV, Sadeghirad B; McMaster Probiotic, Prebiotic, and Synbiotic Work Group. Probiotics Reduce Mortality and Morbidity in Preterm, Low-Birth-Weight Infants: A Systematic Review and Network Meta-analysis of Randomized Trials. Gastroenterology. 2020 Aug;159(2):467-480. doi: 10.1053/j.gastro.2020.05.096. Epub 2020 Jun 24. PMID: 32592699; PMCID: PMC8014956.

Patel RM, Kandefer S, Walsh MC, Bell EF, Carlo WA, et al; Eunice Kennedy Shriver National Institute of Child Health and Human Development Neonatal Research Network. Causes and timing of death in extremely premature infants from 2000 through 2011. N Engl J Med. 2015 Jan 22;372(4):331-40. doi: 10.1056/NEJMoa1403489. PMID: 25607427; PMCID: PMC4349362.



Patel RM, Underwood MA. Probiotics and necrotizing enterocolitis. *Semin Pediatr Surg*. 2018 Feb;27(1):39-46. doi: 10.1053/j.sempedsurg.2017.11.008. Epub 2017 Nov 6. PMID: 29275816; PMCID: PMC5844696.

Patel RM, Pammi M. Probiotics for Preterm Infants: Which One(s) to Choose? *Pediatrics*. 2021 Jan;147(1):e2020039735. doi: 10.1542/peds.2020-039735. Epub 2020 Dec 15. PMID: 33323494.

Poindexter B; COMMITTEE ON FETUS AND NEWBORN. Use of Probiotics in Preterm Infants. *Pediatrics*. 2021 Jun;147(6):e2021051485. doi: 10.1542/peds.2021-051485. Epub 2021 May 24. PMID: 34031231.

Razak A, Patel RM, Gautham KS. Use of Probiotics to Prevent Necrotizing Enterocolitis: Evidence to Clinical Practice. *JAMA Pediatr*. 2021 Aug 1;175(8):773-774. doi: 10.1001/jamapediatrics.2021.1077. PMID: 34047767.

Rolnitsky A, Ng E, Asztalos E, Shama Y, Karol D, et al. A Quality Improvement Intervention to Reduce Necrotizing Enterocolitis in premature infants with Probiotic Supplementation. *Pediatr Qual Saf*. 2019 Sep 9;4(5):e201. doi: 10.1097/pq9.000000000000201. PMID: 31745505; PMCID: PMC6805101.

Salminen MK, Rautelin H, Tynkkynen S, Poussa T, Saxelin M, et al. Lactobacillus bacteremia, species identification, and antimicrobial susceptibility of 85 blood isolates. *Clin Infect Dis*. 2006 Mar 1;42(5):e35-44. doi: 10.1086/500214. Epub 2006 Jan 25. PMID: 16447101.

Sawh SC, Deshpande S, Jansen S, Reynaert CJ, Jones PM. Prevention of necrotizing enterocolitis with probiotics: a systematic review and meta-analysis. *PeerJ*. 2016 Oct 5;4:e2429. doi: 10.7717/peerj.2429. PMID: 27761306; PMCID: PMC5068355.

Sekhon MK, Grubb PH, Newman M, Yoder BA. Implementation of a probiotic protocol to reduce rates of necrotizing enterocolitis. *J Perinatol*. 2019 Sep;39(9):1315-1322. doi: 10.1038/s41372-019-0443-5. Epub 2019 Jul 29. PMID: 31358866.

Sharif S, Meader N, Oddie SJ, Rojas-Reyes MX, McGuire W. Probiotics to prevent necrotising enterocolitis in very preterm or very low birth weight infants. *Cochrane Database Syst Rev*. 2020 Oct 15;10(10):CD005496. doi: 10.1002/14651858.CD005496.pub5. PMID: 33058137; PMCID: PMC8094746.

Thomas JP, Raine T, Reddy S, Belteki G. Probiotics for the prevention of necrotising enterocolitis in very low-birth-weight infants: a meta-analysis and systematic review. *Acta Paediatr*. 2017 Nov;106(11):1729-1741. doi: 10.1111/apa.13902. Epub 2017 Jun 9. PMID: 28471478.

Yelin I, Flett KB, Merakou C, Mehrotra P, Stam J, et al. Genomic and epidemiological evidence of bacterial transmission from probiotic capsule to blood in ICU patients. *Nat Med*. 2019 Nov;25(11):1728-1732. doi: 10.1038/s41591-019-0626-9. Epub 2019 Nov 7. PMID: 31700189; PMCID: PMC6980696.

NEC Society Statement on Probiotics: <https://necsociety.org/probiotics/>