

Update on Antenatal Corticosteroids

References

Bailit JL, Gregory KD, Reddy UM, Gonzalez-Quintero VH, Hibbard JU, et al. Maternal and neonatal outcomes by labor onset type and gestational age. *Am J Obstet Gynecol.* 2010 Mar;202(3):245.e1-245.e12. doi: 10.1016/j.ajog.2010.01.051. PMID: 20207242; PMCID: PMC2888294.

Carter SWD, Kemp MW. A review of the potential off-target effects of antenatal steroid exposures on fetal development. *J Dev Orig Health Dis.* 2025 Mar 26;16:e18. doi: 10.1017/S2040174425000078. PMID: 40135629.

Clapp MA, Melamed A, Freret TS, James KE, Gyamfi-Bannerman C, Kaimal AJ. US Incidence of Late-Preterm Steroid Use and Associated Neonatal Respiratory Morbidity After Publication of the Antenatal Late Preterm Steroids Trial, 2015-2017. *JAMA Netw Open.* 2022 May 2;5(5):e2212702. doi: 10.1001/jamanetworkopen.2022.12702. PMID: 35583868; PMCID: PMC9118048

Cokyaman T, Kavuncuoglu S. Bronchopulmonary dysplasia frequency and risk factors in very low birth weight infants: A 3-year retrospective study. *North Clin Istanbul.* 2019 Aug 9;7(2):124-130. doi: 10.14744/nci.2019.23427. PMID: 32259033; PMCID: PMC7117633.

Committee on Obstetric Practice. Committee Opinion No. 713: Antenatal Corticosteroid Therapy for Fetal Maturation. *Obstet Gynecol.* 2017 Aug;130(2):e102-e109. doi: 10.1097/AOG.0000000000002237. PMID: 28742678.

Doyle LW, Mainzer R, Cheong JLY. Systemic Postnatal Corticosteroids, Bronchopulmonary Dysplasia, and Survival Free of Cerebral Palsy. *JAMA Pediatr.* 2025 Jan 1;179(1):65-72. doi: 10.1001/jamapediatrics.2024.4575. PMID: 39556404; PMCID: PMC11574723.

Gulersen M, Gyamfi-Bannerman C, Greenman M, Lenchner E, Rochelson B, Bornstein E. Time interval from late preterm antenatal corticosteroid administration to delivery and the impact on neonatal outcomes. *Am J Obstet Gynecol MFM.* 2021 Sep;3(5):100426. doi: 10.1016/j.ajogmf.2021.100426. Epub 2021 Jun 18. PMID: 34153514.

Gyamfi-Bannerman C, Thom EA, Blackwell SC, Tita AT, Reddy UM, et al; NICHD Maternal-Fetal Medicine Units Network. Antenatal Betamethasone for Women at Risk for Late Preterm Delivery. *N Engl J Med.* 2016 Apr 7;374(14):1311-20. doi: 10.1056/NEJMoa1516783. Epub 2016 Feb 4. Erratum in: *N Engl J Med.* 2023 May 4;388(18):1728. PMID: 26842679; PMCID: PMC4823164.

Hascoet JM, Mitanchez D, Saliba E, Athea Y. Respiratory distress in late-preterm neonates: from controversy to consensus - a survey of regional advisory boards and neonatologists in France. *BMJ Paediatr Open.* 2025 Jun 12;9(1):e003557. doi: 10.1136/bmjpo-2025-003557. Erratum in: *BMJ Paediatr Open.* 2025 Jul 5;9(1):e003557corr1. doi: 10.1136/bmjpo-2025-003557corr1. PMID: 40506086; PMCID: PMC12161312.

Liauw J, Campbell KSJ, Foggin H, Grunau RE, Petrie J, et al. Antenatal Corticosteroids and Child Neurodevelopment: A Systematic Review and Meta-analysis. *Obstet Gynecol.* 2025 Jun 5;146(3):360-376. doi: 10.1097/AOG.0000000000005950. PMID: 40472380; PMCID: PMC12363325.

McGoldrick E, Stewart F, Parker R, Dalziel SR. Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth. *Cochrane Database Syst Rev.* 2020 Dec 25;12(12):CD004454. doi: 10.1002/14651858.CD004454.pub4. PMID: 33368142; PMCID: PMC8094626.

Murphy KE, Willan AR, Hannah ME, Ohlsson A, Kelly EN, et al; Multiple Courses of Antenatal Corticosteroids for Preterm Birth Study Collaborative Group. Effect of antenatal corticosteroids on fetal growth and gestational age at birth. *Obstet Gynecol*. 2012 May;119(5):917-23. doi: 10.1097/AOG.0b013e31825189dc. PMID: 22525902.

Ninan K, Murphy KE, McDonald SD. Study Quality Must Be Considered When Evaluating Long-term Outcomes of Antenatal Corticosteroid Therapy in Children-Reply. *JAMA Pediatr*. 2022 Oct 1;176(10):1049. doi: 10.1001/jamapediatrics.2022.2858. PMID: 35969385.

Sentilhes L, Sénat MV, Ancel PY, Azria E, Benoist G, et al. Prevention of spontaneous preterm birth: Guidelines for clinical practice from the French College of Gynaecologists and Obstetricians (CNGOF). *Eur J Obstet Gynecol Reprod Biol*. 2017 Mar;210:217-224. doi: 10.1016/j.ejogrb.2016.12.035. Epub 2016 Dec 30. PMID: 28068594.

Society for Maternal-Fetal Medicine (SMFM). Electronic address: pubs@smfm.org; Reddy UM, Deshmukh U, Dude A, Harper L, Osmundson SS. Society for Maternal-Fetal Medicine Consult Series #58: Use of antenatal corticosteroids for individuals at risk for late preterm delivery: Replaces SMFM Statement #4, Implementation of the use of antenatal corticosteroids in the late preterm birth period in women at risk for preterm delivery, August 2016. *Am J Obstet Gynecol*. 2021 Nov;225(5):B36-B42. doi: 10.1016/j.ajog.2021.07.023. Epub 2021 Aug 5. PMID: 34363784.

Sweet DG, Carnielli VP, Greisen G, Hallman M, Klebermass-Schrehof K, et al. European Consensus Guidelines on the Management of Respiratory Distress Syndrome: 2022 Update. *Neonatology*. 2023;120(1):3-23. doi: 10.1159/000528914. Epub 2023 Feb 15. PMID: 36863329; PMCID: PMC10064400.

Zullo F, Gulersen M, Di Mascio D, Roth SC, Logue TC, et al. Antenatal corticosteroids for patients at risk of late preterm birth: a systematic review and meta-analysis of randomized controlled trials. *Am J Obstet Gynecol MFM*. 2025 Aug;7(8):101709. doi: 10.1016/j.ajogmf.2025.101709. Epub 2025 May 24. PMID: 40418984.

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