EDUCATIONAL RESOURCES

Cervical dilation with the Cook® Cervical Ripening Balloon

Practice guidelines

- National Institute for Health and Care Excellence. Insertion of a double balloon catheter for induction of labour in pregnant women without previous caesarean section: interventional procedures guidance [IPG528]. NICE Web site. https://www.nice.org.uk/guidance/ipg528. Published July 23, 2015. Accessed September 30, 2020.
- National Institute for Health and Care Excellence. Inducing Labour. NICE guideline [NG207]. Published: 04 November 2021. Accessed December 4, 2021.
- Society of Maternal-Fetal Medicine (SMFM) Publications Committee. SMFM statement on elective induction of labor in low-risk nulliparous women at term: the ARRIVE trial. Am J Obstet Gynecol. 2019;221(1):B2–B4.
- World Health Organization. WHO recommendations: induction of labour at or beyond term. WHO Web site. https://apps.who.int/iris/bitstream/handle/10665/277233/9789241550413-eng.pdf. Published 2018. Accessed December 2, 2020.
- ACOG Practice Bulletin No. 107: Induction of labor. Obstet Gynecol. 2009;114(2 Pt 1):386-397.
- SOGC Clinical Practice Guideline; Induction of Labour; Leduc D, Biringer A, Lee L, Dy J; CLINICAL PRACTICE OBSTETRICS COMMITTEE; SPECIAL CONTRIBUTORS. Induction of labour. J Obstet Gynaecol Can. 2013;35(9):840-857.
- Queensland Clinical Guidelines; Induction of Labour; https://www.health.qld.gov.au/__data/assets/pdf_file/0020/641423/g-iol.pdf Accessed 27th September 2021
- California Maternal Quality Care Collaborative. Induction of labor algorithm. CMQCC website: https://www.cmqcc.org/content/appendix-r-induction-labor-algorithm. Published April 28, 2016. Accessed December 4, 2021.
- ACOG Committee Opinion No 579: Definition of term pregnancy. Obstet Gynecol. 2013;122(5): 1139-1140.

Meta-analyses

- Alfirevic Z, Keeney E, Dowswell T, et al. Methods to induce labour: a systematic review, network meta-analysis and cost-effectiveness analysis. BJOG. 2016;123(9):1462–1470.
- Du YM, Zhu LY, Cui LN, et al. Double-balloon catheter versus prostaglandin E2 for cervical ripening and labour induction: a systematic review and meta-analysis of randomised controlled trials. BJOG. 2017;124(6):891–899.
- Lajusticia H, Martinez-Dominguez SJ, Perez-Roncero GR, et al. Single versus double-balloon catheters for the induction of labor of singleton pregnancies: a meta-analysis of randomized and quasi-randomized controlled trials. Arch Gynecol Obstet. 2018;297(5):1089–1100.
- Liu X, Wang Y, Zhang F, et al. Double- versus single-balloon catheters for labour induction and cervical ripening: a meta-analysis. BMC Pregnancy Childbirth. 2019;19(1):358.
- Liu YR, Pu Cx, Wang XY, et al. Double-balloon catheter versus dinoprostone insert for labour induction: a meta-analysis. Arch Gynecol Obstet. 2019;299(1):7–12.
- Salim R, Schwartz N, Zafran N, et al. Comparison of single- and double-balloon catheters for labor induction: a systematic review and meta-analysis of randomized controlled trials. J Perinatol. 2018;38(3):217–225.
- Yang F, Huang S, Long Y et al. Double-balloon versus single-balloon catheter for cervical ripening and labor induction: A systematic review and meta-analysis. J Obstet Gynaecol Res. 2018;44(1):27–34.

Efficacy

- Grace Ng YH, Aminuddin AA, Tan TL, et al. Multicentre randomised controlled trial comparing the safety in the first 12 h, efficacy and maternal satisfaction of a double balloon catheter and prostaglandin pessary for induction of labour. Arch Gynecol Obstet. 2021 May 11.
- Brown J, Beckmann M. Induction of labour using balloon catheter and prostaglandin gel. Aust N Z J Obstet Gynaecol. 2017;57(1):68–73.
- Cromi A, Ghezzi F, Uccella S, et al. A randomized trial of preinduction cervical ripening: dinoprostone vaginal insert versus double-balloon catheter. Am J Obstet Gynecol. 2012;207(2);125.e1–125.e7.
- Kosec V, Djakovic I, Sabolviç Rudman S. Cervical ripening balloon as a method of preinduction – one center study. Acta Clin Croat. 2018;57(4):762–767.
- Suffecool K, Rosenn BM, Kam S, et al. Labor induction in nulliparous women with an unfavorable cervix: double balloon catheter versus dinoprostone. J Perinat Med. 2014;42(2):213–218.
- Wang L, Wang G, Cao W. et al. Comparison of the Cook vaginal cervical ripening balloon with prostaglandin E2 insert for induction of labor in late pregnancy. Arch Gynecol Obstet. 2020;302(3): 579-584.

Bishop score

- Hoppe KK, Schiff MA, Peterson SE, et al. 30 mL single- versus 80 mL double-balloon catheter for pre-induction cervical ripening: a randomized controlled trial. J Matern Fetal Neonatal Med. 2016;29(12):1919-1925.
- Solt I, Frank Wolf M, Ben-Haroush S, et al. Foley catheter versus cervical double balloon for labor induction: a prospective randomized study [published online ahead of print June 11, 2019]. J Matern Fetal Neonatal Med. 2019:1–8.

Pain score and patient satisfaction

- Lim SEL, Tan TL, Ng GYH, et al. Patient satisfaction with the cervical ripening balloon as a method for induction of labour: a randomised controlled trial. Singapore Med J. 2018;59(8):419–424.

Times of insertion and delivery

- Brown J, Beckman M. Induction of labour using balloon catheter and prostaglandin gel. Aust N Z J Obstet Gynaecol. 2017;57(1):68–73.

Uterine hyperstimulation

- Alfirevic Z, Keeney E, Dowswell T, et al. Methods to induce labour: a systematic review, network meta-analysis and cost-effectiveness analysis. BJOG. 2016;123(9):1462–1470.
- Cromi A, Ghezzi F, Uccella S, et al. A randomized trial of preinduction cervical ripening: dinoprostone vaginal insert versus double-balloon catheter. Am J Obstet Gynecol. 2012;207(2):125.e1–125.e7.
- Du C, Liu Y, Liu Y, et al. Double-balloon catheter vs. dinoprostone vaginal insert for induction of labor with an unfavorable cervix. Arch Gynecol Obstet. 2015;291(6):1221–1227.
- Du YM, Zhu LY, Cui LN, et al. Double-balloon catheter versus prostaglandin E2 for cervical ripening and labour induction: a systematic review and meta-analysis of randomised controlled trials. BJOG. 2017;124(6):891–899.
- Shechter-Maor G, Haran G, Saden-Mestechkin D, et al. Intra-vaginal prostaglandin E2 versus double-balloon catheter for labor induction in term oligohydramnios. J Perinatol. 2015;35(2):95–98.
- Wang W, Zheng J, Fu J, et al. Which is the safer method of labor induction for oligohydramnios women? Transcervical double balloon catheter or dinoprostone vaginal insert. J Matern Fetal Neonatal Med. 2014;27(17):1805–1808.

Cost-effectiveness

- Du YM, Zhu LY, Cui LN, et al. Double-balloon catheter versus prostaglandin E2 for cervical ripening and labour induction: a systematic review and meta-analysis of randomised controlled trials. BJOG. 2017;124(6):891–899.
- Grobman WA, Sandoval G, Reddy UM, et al. Health resource utilization of labor induction versus expectant management. Am J Obstet Gynecol. 2020;222(4):369.e1–369.e11.

Umbilical cord prolapse

- Royal College of Obstetricians & Gynaecologists. Umbilical cord prolapse green-top guideline no. 50. RCOG website: https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg50/ Published: November 5, 2014. Accessed December 4, 2021.
- Hasegawa J, Sekizawa A, Ikeda T, et al. The use of balloons for uterine cervical ripening is associated with an increased risk of umbilical cord prolapse: population based questionnaire survey in Japan. BMC Pregnancy Childbirth. 2015;15:4.
- Hasegawa J, Sekizawa A, Arakaki T, et al. Declined use of cervical ripening balloon did not reduce the incidence of umbilical cord prolapse in Japan. J Obstet Gynaecol Re. 2020;46:8:1349-1354
- Pagan M, Eads L, Sward L, et al. Umbilical Cord Prolapse: A Review of the Literature. Obstet Gynecol Surv. 2020 Aug;75(8):510-518.

Induction of labor at 39 weeks vs. expectant management*

- Grobman WA, Caughey AB. Elective induction of labor at 39 weeks compared with expectant management: a meta-analysis of cohort studies. Am J Obstet Gynecol. 2019;221(4):304–310.
- Grobman WA, Rice MM, Reddy UM, et al. Labor induction versus expectant management in low-risk nulliparous women. N Engl J Med. 2018;379:513–523.
- Grobman WA, Sandoval G, Reddy UM, et al. Health resource utilization of labor induction versus expectant management. Am J Obstet Gynecol. 2020;222(4):369.e1–369.e11.
- Sotiriadis A, Petousis S, Thilaganathan B, et al. Maternal and perinatal outcomes after elective induction of labor at 39 weeks in uncomplicated singleton pregnancy: a meta-analysis. Ultrasound Obstet Gynecol. 2019;53(1):26–35.

*Not specific to the Cook Cervical Ripening Balloon.