

Original Article

Outcome of Induction of Labour in Postdated Pregnancy - A Clinical Study in a Tertiary Care Hospital

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ABSTRACT

Background: Post-dated pregnancy is associated with increased maternal and perinatal risks. Timely induction of labour can reduce these risks, but outcome vary depending on maternal, fetal, and cervical factors. This study aimed to assess maternal and neonatal outcomes following induction in postdated pregnancies at a tertiary hospital in Bangladesh. **Methods & Materials:** A prospective observational study was conducted on 100 postdated pregnant women at Rajshahi Medical College Hospital from February to August 2021. Data on demographic characteristics, induction methods, delivery outcomes, and neonatal status were collected. Statistical analysis was performed using SPSS v23, with significance set at $p < 0.05$. **Results:** Vaginal delivery occurred in 60% of participants, while 40% required caesarean section. A favorable Bishop score significantly increased the likelihood of vaginal delivery ($p = 0.006$). Fetal distress (55%) was the most common caesarean indication. Most women (90%) delivered within 24 hours of induction. Neonatal outcomes were favorable, with 80% of babies born healthy and only 2% requiring NICU admission. No stillbirths occurred. No significant differences were observed in perinatal outcomes between 40 completed weeks and 41 completed weeks of gestation. **Conclusion:** Induction of labour in postdated pregnancy is safe and effective when guided by cervical status and continuous fetal and maternal monitoring. The findings support early induction before 42 weeks to prevent complications without increasing caesarean risk.

Keywords: Postdated Pregnancy, Induction of Labour, Bishop Score, Caesarean Section, Perinatal Outcome

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INTRODUCTION

Postdated pregnancy—defined as pregnancy extending beyond 40 weeks—and post-term pregnancy—beyond 42 weeks—represent a significant proportion of pregnancies worldwide, with an estimated global prevalence ranging between 5% and 10% [1,2]. These prolonged pregnancies pose increasing risks for both maternal and fetal complications, including stillbirth, meconium aspiration syndrome, and increased rates of operative deliveries, particularly when extending beyond 41 and 42 weeks of gestation [3,4]. Notably, a study from India reported that 17.6% of pregnancies were postdated, and this subgroup experienced notably higher incidences of NICU admissions and caesarean section deliveries compared to those delivered earlier [2]. The global public health burden is further magnified in low-resource settings, where access to advanced obstetric surveillance is limited, underscoring the critical importance of establishing

evidence-based guidelines for the management of postdated gestation. The risk of adverse outcomes in postdated pregnancies is multifactorial. Placental senescence is thought to reduce the efficiency of maternal-fetal exchange of oxygen and nutrients, thereby contributing to fetal compromise, oligohydramnios, and intrapartum complications [5]. Oligohydramnios, often resulting from diminished fetal urine output, serves as a surrogate marker of placental insufficiency and has been correlated with increased rates of fetal distress and operative delivery [6,7]. Histological studies have confirmed a higher prevalence of maternal vascular malperfusion lesions in placentas associated with oligohydramnios at term, further reinforcing the connection between placental aging and adverse perinatal outcomes [8]. An accurate estimation of gestational age is pivotal in minimizing the risk of unnecessary interventions or delayed deliveries. Dating based on last menstrual period (LMP) is prone to errors due to recall

bias and variations in ovulation timing. In contrast, first-trimester ultrasonography using crown-rump length measurement has consistently demonstrated superior accuracy, with studies reporting that up to 70% of LMP-dated pregnancies may be reclassified when early ultrasound is utilized [9,10]. A prospective study found that use of first-trimester ultrasound dating significantly reduced the rate of postdated induction from 24.2% (LMP) to 14% (USG) [10]. Once a pregnancy reaches or exceeds 41 weeks, current clinical practice guidelines diverge between expectant management and elective induction. The Royal College of Obstetricians and Gynaecologists (RCOG) and the World Health Organization (WHO) recommend offering induction of labor between 41+0 and 42+0 weeks to reduce perinatal morbidity and mortality while minimizing unnecessary interventions [3,11]. Expectant management involves frequent fetal surveillance with twice-weekly non-stress tests and biophysical profiles, but this strategy may not be feasible or effective in low-resource settings. A systematic review by Bruinsma et al. (2022) demonstrated that induction at 41 weeks resulted in significantly fewer adverse perinatal outcomes without increasing the risk of cesarean section, corroborating findings from the Dutch INDEX trial and the SWEPIS trial conducted in Sweden [12–14]. Similarly, the Cochrane review by Middleton et al. (2012) encompassing over 12,000 women across 30 RCTs concluded that elective induction reduced perinatal death by 67% (RR = 0.33) and decreased cesarean risk (RR = 0.92), with an NNT of 426 to prevent one perinatal death. Despite the compelling evidence from high-income settings, regional data from South Asia—particularly Bangladesh—remain scarce. Given the resource constraints, high maternal and neonatal morbidity burden, and variability in induction protocols, context-specific research is essential. A Bangladeshi study by Jebunnaher et al. affirmed the feasibility of combined methods for induction in postdated pregnancy, but there is limited large-scale data linking induction practices to maternal and neonatal outcomes in this setting [15]. This lack of data highlights the need for hospital-based observational studies to evaluate real-world outcomes, tailor protocols, and inform national policy.

METHODS & MATERIALS

This clinical study was conducted at the Department of Obstetrics and Gynaecology, Rajshahi Medical College Hospital, Bangladesh, over a six-month period from February 2021 to August 2021. A total of 100 pregnant women with postdated pregnancies (≥ 40 weeks of gestation) were enrolled through purposive sampling. The study included women aged 18–44 years with uncomplicated singleton pregnancies, reliable menstrual dates (confirmed by last menstrual period and early ultrasound), and gestational ages between 40 weeks and 1 day (40+1) to 41 weeks and 6 days (41+6). Participants were required to have a cephalic presentation, regular menstrual cycles, and no prior uterine scars (e.g., cesarean section). Women presenting with active labor, multiple gestations, fetal malpresentation, congenital anomalies, oligohydramnios, intrauterine growth restriction (IUGR), or

premature rupture of membranes (PROM) were excluded. Additionally, those with pregnancy-related complications such as hypertensive disorders, diabetes mellitus, or other significant medical conditions were also excluded to minimize confounding variables and ensure a homogeneous study population focused on low-risk post-dated pregnancies. All participants underwent routine pre-induction evaluation including obstetric history, physical examination, Bishop scoring, non-stress testing (NST), and ultrasonography to assess fetal well-being and amniotic fluid index. Induction of labor was initiated using dinoprostone (PGE₂) vaginal gel (0.5 mg every 6 hours, up to 3 doses), followed by oxytocin infusion if adequate cervical ripening was achieved. Continuous fetal monitoring was performed throughout labor. The primary outcomes measured were mode of delivery (vaginal or cesarean section), maternal complications (e.g., postpartum hemorrhage, perineal tear, prolonged labor), and neonatal outcomes including birth weight, Apgar scores, NICU admission, and presence of meconium-stained liquor. Data were collected using a structured proforma and analyzed using SPSS version 23.0. Descriptive statistics such as frequencies, percentages, means, and standard deviations were calculated. Associations between induction outcomes and maternal or fetal parameters were assessed using chi-square tests where appropriate. A p-value <0.05 was considered statistically significant. Ethical clearance was obtained from the Institutional Review Board of Rajshahi Medical College, and informed written consent was secured from all participants prior to enrollment.

RESULTS

Among the 100 women included in the study, the majority were aged between 20 to 30 years (68%), while 20% were younger than 20 years and 12% were above 30 years. In terms of education, 45% of the participants were illiterate, 35% had completed primary education, and only 20% had attained secondary-level education. Socio-economic analysis showed that half of the study population (50%) belonged to the lower socio-economic class, followed by 35% from the middle class and 15% from the upper class. Regarding obstetric history, 60% were primigravida, while 40% were multigravida. [Table I]

Table – I: Distribution of baseline characteristics among the participants (n=100)

Baseline Demographics	Number	Percentage
Age		
<20	20	20.00%
20-30	68	68.00%
>30	12	12.00%
Educational Status		
Illiterate	45	45.00%
Up to Primary	35	35.00%
Secondary	20	20.00%
Socio-Economic Status		
Lower Class	50	50.00%

Middle Class	35	35.00%
Upper Class	15	15.00%
Gravidity		
Primigravida	60	60.00%
Multigravida	40	40.00%

At the time of induction, 59% of the participants had completed 40 weeks of gestation, while the remaining 41% had completed 41 weeks. Engagement of the fetal head was present in 42% of the cases, whereas 58% had unengaged heads. The Bishop score assessment revealed that 52% of the women had an unfavorable cervix (score 0–5), while 48% had a favorable cervix (score 6–13). Regarding amniotic fluid levels, 46% had an AFI between 5 and 8 cm, and 54% had levels greater than 8 cm. Estimated fetal weight was below 3.5 kg in 52% of cases and above 3.5 kg in 48%. [Table II]

Table – II: Pregnancy dating & pre-induction status

Variable	Number	Percentage
Duration of pregnancy (Week)		
40 weeks completed (280-287 days)	59	59.00%
41 weeks completed (288-294 day)	41	41.00%
Engagement of head		
Engaged	42	42.00%
Not Engaged	58	58.00%
Bishop's score		
0-5 (unfavorable cervix)	52	52.00%
6-13 (favorable cervix)	48	48.00%
Amniotic Fluid Index		
5-8 cm	46	46.00%
>8 cm	54	54.00%
Estimated Fetal Weight		

<3.5 kg	52	52.00%
>3.5 kg	48	48.00%

Regarding the method of labor induction, 52% of the participants underwent a protocol involving prostaglandin administration followed by artificial rupture of membranes (ARM) and oxytocin drip. In contrast, 48% were induced directly with ARM followed by oxytocin infusion. [Figure 1]

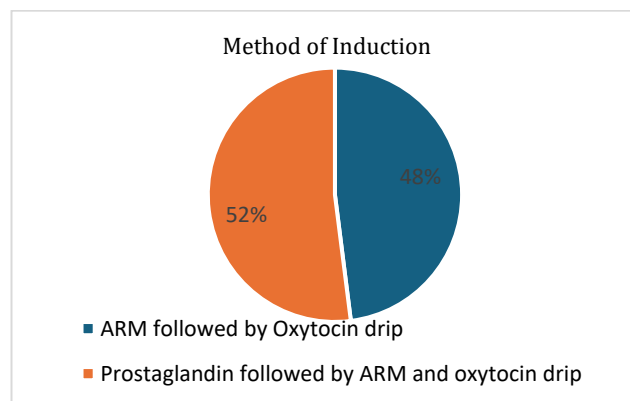


Figure – 1: Induction method distribution

The mode of delivery was significantly associated with the initial cervical status. Among women with a favorable cervix (Bishop score ≥ 6), 75% achieved vaginal delivery, while only 25% required cesarean section. In contrast, among those with an unfavorable cervix (Bishop score ≤ 5), the vaginal delivery rate dropped to 46.2%, with 53.8% undergoing cesarean section. Overall, 60% of the participants delivered vaginally, while 40% required cesarean delivery. [Table III]

Table – III: Delivery outcomes by cervical favorability

Cervical status	Vaginal delivery n (%)	Caesarean section n (%)	Total
Favorable (Bishop ≥ 6)	36 (75.0)	12 (25.0)	48
Unfavorable (Bishop ≤ 5)	24 (46.2)	28 (53.8)	52
Overall	60 (60.0)	40 (40.0)	100

Among the 40 cesarean sections performed, the most common indication was fetal distress, accounting for 55% of cases. Abnormal uterine action was noted in 45%, while uterine inertia contributed to 25% of cesarean deliveries. Hyperstimulation and cervical dystocia were each reported as indications in 10% of the cases. Several patients had overlapping or combined indications, highlighting the multifactorial nature of cesarean decision-making during induced labor. [Table IV]

Table – IV: Indications of cesarean sections (n=40)

Indication	Number	Percentage
Fetal distress	22	55.00%
Abnormal uterine action	18	45.00%
Uterine inertia	10	25.00%
Hyper stimulation	4	10.00%
Cervical dystocia	4	10.00%

The induction-to-delivery interval varied among participants. In 22% of cases, delivery occurred within 6 hours of induction, while 35% delivered between 6 to 12 hours. A similar proportion (33%) required 12 to 24 hours, and only 10% of participants experienced a prolonged interval exceeding 24 hours. These findings indicate that the majority (90%) delivered within the first 24 hours following induction. [Table V]

Table – V: Induction delivery interval

Induction delivery interval	Number	Percentage
< 6 hours	22	22.00%
6 to 12 hours	35	35.00%
12 to 24 hours	33	33.00%
> 24 hours	10	10.00%

Mode of delivery showed a notable association with gravidity. Among primigravida women ($n = 60$), 36 (60%) underwent cesarean section, while only 24 (40%) delivered vaginally. In contrast, among multigravida women ($n = 40$), the majority

(90%) achieved vaginal delivery, with only 4 (10%) requiring cesarean section. This suggests a higher success rate of vaginal delivery in multigravida patients following induction. [Figure 2]

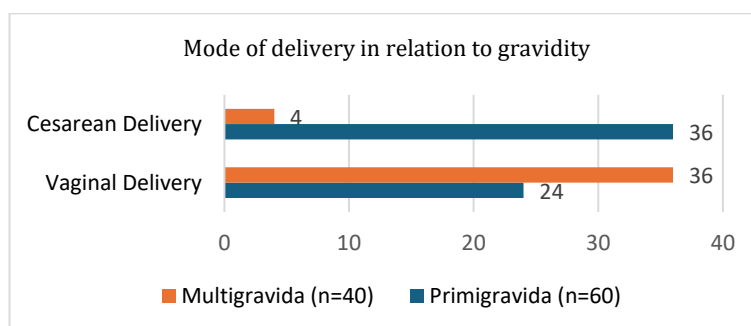


Figure – 2: Mode of delivery in relation to gravidity

Most neonates (80%) were born in a healthy condition, while 20% experienced birth asphyxia requiring resuscitation. No stillbirths were recorded. At one minute, Apgar scores were <5 in 4% of cases, 5–6 in 12%, and 7–10 in the majority (84%). By five minutes, scores improved, with 92% scoring 7–10 and only 8% remaining in the 5–6 range; no neonate had a score <5. In terms of birth weight, 94% of newborns weighed between 2.5 and 4.0 kg, 2% were less than 2.5 kg, and 4% exceeded 4.0 kg. While 20% of neonates required initial resuscitation, only 2% necessitated admission to the NICU. [Table VI]

Table – VI: Neonatal condition at birth

Parameter	Number	Percentage
Overall status		
Healthy	80	80.00%
Asphyxiated (needed resuscitation)	20	20.00%
Stillbirth	0	0.00%
Apgar score – 1 min		
< 5	4	4.00%
5 – 6	12	12.00%
7 – 10	84	84.00%
Apgar score – 5 min		

< 5	0	0.00%
5 – 6	8	8.00%
7 – 10	92	92.00%
Birth-weight		
< 2.5 kg	2	2.00%
2.5 – 4.0 kg	94	94.00%
> 4.0 kg	4	4.00%
Immediate care		
Resuscitation required	20	20.00%
NICU admission	2	2.00%

Comparison of perinatal outcomes between women who completed 40 weeks ($n = 54$) and those who completed 41 weeks ($n = 46$) revealed no statistically significant differences. Among those at 40 weeks, 77.8% delivered healthy babies, compared to 82.6% in the 41-week group ($p = 0.53$). The rate of birth asphyxia was 22.2% in the 40-week group and 17.4% in the 41-week group ($p = 0.53$). Other complications—including low birth weight with asphyxia and post-maturity syndrome—were observed in 3.7% of the 40-week group but were absent in the 41-week group ($p = 0.49$). These findings indicate that extending gestation to 41 weeks did not significantly impact perinatal outcomes in this cohort. [Table VII]

Table VII: Perinatal outcomes by gestational-age subgroup

Outcome	Completed 40 Weeks ($n = 54$)	Completed 41 Weeks ($n = 46$)	p-value†
Healthy baby, n (%)	42 (77.8)	38 (82.6)	0.53
Asphyxiated baby, n (%)	12 (22.2)	8 (17.4)	0.53
Other complications*, n (%)	2 (3.7)	0 (0)	0.49

† Two-tailed χ^2 test (significance set at $p < 0.05$); *Includes low birth-weight with asphyxia and post-maturity syndrome.

DISCUSSION

The present study provides a comprehensive picture of induction of labour in post-dated pregnancy at a Bangladeshi tertiary centre and—when set against the wider open-access

literature—confirms several known patterns while adding context-specific nuances. The age profile of our cohort (68 % aged 20–30 years, 20 % teenagers) mirrors the demographic reported by Khanam et al. and Rosy and Siddiqua, both of

whom also worked in Bangladeshi referral hospitals and recorded two-thirds of patients in the third decade [16,17]. The high proportion of primigravida (60 %) is likewise consistent with regional data showing primiparity as the dominant obstetric category in post-dated pregnancies [18]. Educational disadvantage (45 % illiterate) and low socio-economic status (50 %) in our sample underscore the persisting social gradient in prolonged gestation noted across South-Asian series and are pertinent because lower literacy has been linked to delayed presentation and sub-optimal obstetric outcomes [18]. Clinically, 59 % of women were induced at exactly 40 + weeks and 41 % at 41 weeks, comparable to the gestational-age distribution in Rahman and Sobhan [19]. Nearly half (48 %) presented with a favourable cervix (Bishop ≥ 6)—a proportion close to the 45 % reported by He et al. —and this translated into a markedly higher vaginal-delivery rate (75 % vs 46 %) with a statistically significant association ($p = 0.006$), echoing the predictive value of the Bishop score highlighted by Tan et al [20,21]. Fetal-head engagement was documented in 42 % of cases; although Eggebø et al. and Gokturk et al. found ultrasound-measured head descent to enhance prediction of induction success, our data suggest that palpated engagement alone remains an imperfect predictor, given that more than half of unengaged heads still delivered vaginally [22,23]. Regarding induction strategy, prostaglandin-based regimens were used in 52 % and ARM + oxytocin in 48 %. This near-equal split is similar to the method mix described by Singh et al. and Akram et al., who both concluded that prostaglandins improve cervical ripening but carry a trade-off in terms of hyper-stimulation [2,24]. In our cohort, overall vaginal-delivery success was 60 %, aligning with the 62–70 % success range reported in Rahman and Sobhan and Jebunnaher et al [15,19]. Importantly, 90 % of multigravida women achieved vaginal birth compared with only 40 % of primigravida—a gravidity gradient also noted by Yogeve et al. and emphasised as a key determinant of cesarean risk [25]. Cesarean section occurred in 40 % of cases, with fetal distress the leading indication (55 %) followed by abnormal uterine action (45 %), principally uterine inertia (25 %). Similar patterns are documented by Rezaie et al. and Gupta et al., who each reported fetal distress in roughly half of intrapartum cesareans after induction [26,27]. Our induction-to-delivery interval was ≤ 24 h in 90 % of women and < 12 h in 57 %, consistent with the time frames reported by Aryal and Karki; and Yadav and Shrivastava, supporting the operational efficiency of the induction protocols used [28,29]. Neonatal outcomes were favourable: 84 % had Apgar 7–10 at 1 min, improving to 92 % at 5 min with no scores < 5 —a trajectory paralleling the improvement curves noted by Lonimitdee and Prommas [30]. Birth-weight distribution was predominantly normal (94 % at 2.5–4 kg) with low rates of both low birth weight (2 %) and macrosomia (4 %), findings in line with Khooshideh et al.'s term versus post-term comparison [31]. Although 20 % of neonates required initial resuscitation, only 2 % necessitated NICU admission, echoing Chun et al. who reported rapid recovery post-resuscitation in late-preterm cohorts [32]. Crucially, when outcomes were stratified by gestational-age subgroup (40 vs 41 weeks), no statistically significant differences emerged—

supporting the contention of Khooshideh et al. that extending pregnancy from 40 to 41 weeks does not inherently worsen perinatal results when active surveillance and timely induction are practiced [31]. Taken together, these findings reinforce international evidence that timely induction at or before 41 weeks, guided by cervical assessment, can achieve high vaginal-delivery rates without excessive maternal or neonatal morbidity. They also highlight context-specific challenges—particularly low literacy and primigravidity—that may necessitate targeted counselling to optimize induction success and reduce cesarean burden in Bangladeshi tertiary centres.

Limitations of The Study

The study was conducted in a single hospital with a small sample size. So, the results may not represent the whole community.

CONCLUSION

This study highlights that induction of labour in postdated pregnancy, when performed with appropriate patient selection and cervical assessment, is a safe and effective strategy for optimizing delivery outcomes in a tertiary care setting in Bangladesh. A favorable Bishop score was strongly associated with successful vaginal delivery, while primigravidity and an unfavorable cervix were linked to higher cesarean rates. Fetal distress remained the leading cause of cesarean section, reinforcing the need for vigilant intrapartum monitoring. Despite 20% of neonates requiring initial resuscitation, NICU admission was minimal (2%), and no stillbirths occurred, indicating overall good neonatal outcomes. Importantly, perinatal outcomes did not significantly differ between 40-week and 41-week gestational subgroups, supporting the safety of induction before 42 weeks in well-monitored settings. These findings underscore the importance of early risk stratification, individualized induction protocols, and evidence-based decision-making to reduce cesarean burden and ensure maternal-neonatal safety in postdated pregnancies.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Verma P, Kumari V, Roy D. A STUDY OF MATERNAL AND PERINATAL OUTCOME IN POST DATED PREGNANCY. *GLOBAL JOURNAL FOR RESEARCH ANALYSIS*. 2020 Dec;9(12):46–8.
2. Singh S, Gupta HP, Verma U, Yadav G. The study of maternal and perinatal outcome in prolonged pregnancy. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology [Internet]*. 2017 Feb 19 [cited 2025 Apr 24];6(3):1067–70. Available from: <https://www.ijrcog.org/index.php/ijrcog/article/view/1240>
3. Hussain AA, Yakoob MY, Imdad A, Bhutta ZA. Elective induction for pregnancies at or beyond 41 weeks of gestation and its impact on

- stillbirths: a systematic review with meta-analysis. *BMC Public Health*. 2011 Apr 13;11 Suppl 3(Suppl 3):S5.
4. Alkmark M, Keulen JK, Kortekaas JC, Bergh C, Dillen J van, Duijnhoven RG, et al. Induction of labour at 41 weeks or expectant management until 42 weeks: A systematic review and an individual participant data meta-analysis of randomised trials. *PLOS Medicine* [Internet]. 2020 Dec 8 [cited 2025 Apr 24];17(12):e1003436. Available from: <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003436>
5. Romero-Gutiérrez G, González-Ramos R, Valadez-Ortega MA, Bribiesca-López JA. [Perinatal morbimortality associated with placental senescence]. *Ginecol Obstet Mex*. 1997 Jan;65:8–12.
6. Trimmer KJ, Leveno KJ, Peters MT, Kelly MA. Observations on the cause of oligohydramnios in prolonged pregnancy. *American Journal of Obstetrics and Gynecology* [Internet]. 1990 Dec 1 [cited 2025 Apr 24];163(6, Part 1):1900–3. Available from: <https://www.sciencedirect.com/science/article/pii/000293789090771X>
7. Groome LJ, Owen J, Neely CL, Hauth JC. Oligohydramnios: antepartum fetal urine production and intrapartum fetal distress. *Am J Obstet Gynecol*. 1991 Oct;165(4 Pt 1):1077–80.
8. Mirembert H, Grinstein E, Herman HG, Marely C, Barber E, Schreiber L, et al. The association between isolated oligohydramnios at term and placental pathology in correlation with pregnancy outcomes. *Placenta* [Internet]. 2020 Jan 15 [cited 2024 Sep 24];90:37–41. Available from: <https://www.sciencedirect.com/science/article/pii/S0143400419307155>
9. Hoffman CS, Messer LC, Mendola P, Savitz DA, Herring AH, Hartmann KE. Comparison of gestational age at birth based on last menstrual period and ultrasound during the first trimester. *Paediatr Perinat Epidemiol*. 2008 Nov;22(6):587–96.
10. Koirala S, Thakur A, Rai R, Thapa BD, Pant AR. Effectiveness of first trimester ultrasound screening in reduction of postdated labor induction rate. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology* [Internet]. 2021 Sep 27 [cited 2025 Apr 24];10(10):3698–702. Available from: <https://www.ijrcog.org/index.php/ijrcog/article/view/10790>
11. Gawrys B, Trang D, Cheng W. Management of Late-Term and Postterm Pregnancy. *afp* [Internet]. 2024 Oct [cited 2025 Apr 24];110(4):378–84. Available from: <https://www.aafp.org/pubs/afp/issues/2024/1000/late-term-postterm-pregnancy-management.html>
12. Bruinsma A, Keulen JK, Kortekaas JC, van Dillen J, Duijnhoven RG, Bossuyt PM, et al. Elective induction of labour and expectant management in late-term pregnancy: A prospective cohort study alongside the INDEX randomised controlled trial. *European Journal of Obstetrics & Gynecology and Reproductive Biology: X* [Internet]. 2022 Dec 1 [cited 2025 Apr 24];16:100165. Available from: <https://www.sciencedirect.com/science/article/pii/S2590161322000266>
13. Keulen JK, Bruinsma A, Kortekaas JC, van Dillen J, Bossuyt PM, Oudijk MA, et al. Induction of labour at 41 weeks versus expectant management until 42 weeks (INDEX): multicentre, randomised non-inferiority trial. *BMJ*. 2019 Feb 20;364:l344.
14. Wennerholm UB, Saltvedt S, Wessberg A, Alkmark M, Bergh C, Wendel SB, et al. Induction of labour at 41 weeks versus expectant management and induction of labour at 42 weeks (SWEdish Post-term Induction Study, SWEPIIS): multicentre, open label, randomised, superiority trial. *BMJ*. 2019 Nov 20;367:l6131.
15. Jebunnaher J, Sultana R, Podder S, Akhter MstS, Shammi TK. The Outcome of Combined Induction of Labor in Post Dated Pregnancy. *Sch Int J Obstet Gynec* [Internet]. 2024 Apr 6 [cited 2025 Apr 24];7(04):161–8. Available from: https://saudijournals.com/media/articles/SIJOG_74_161-168.pdf
16. Khanam KA, Shikder S, Nahar K, Quamruzzaman M, Shahnewaj SM, Rahman SM. Outcome of Medical Induction of Labour in Postdated Pregnancy. *Saudi J Med Pharm Sci* [Internet]. 2023 [cited 2025 Apr 24];9(2):129–34. Available from: https://saudijournals.com/media/articles/SJMPS_92_129-134.pdf
17. Rosy MS, Siddiqua S. Outcome of medical induction of labour in postdated pregnancy. *Int J Gynaecol Obstet Sci* [Internet]. 2020 [cited 2025 Apr 24];2(1):03–8. Available from: <https://www.gynaecologyjournals.com/archives/2020.v2.i1.A.9/outcome-of-medical-induction-of-labour-in-postdated-pregnancy>
18. Fatima J, Fatima E, Mehmood F, Ishtiaq I, Khan MA, Khurshid HMS, et al. Comprehensive Analysis of Oral Squamous Cell Carcinomas: Clinical, Epidemiological, and Histopathological Insights With a Focus on Prognostic Factors and Survival Time. *Cureus* [Internet]. 2024 [cited 2025 Jan 22];16(2):e54394. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10949903/>
19. Rahman MT, Sobhan SA. Assessing the Rate of Successful Induction of labor Following IntraVaginal Administration of Misoprostol. *Scholars International Journal of Obstetrics and Gynecology*. 2022 Jan 18;5(1):7–13.
20. He Y, Tao Y, Ni Q, Li Z, Huang Y, Liu L. Assessing the timing of amniotomy after Foley balloon catheter removal in women with labor induction: The role of Bishop score: An observational study. *Medicine (Baltimore)*. 2024 Dec 20;103(51):e41068.
21. Tan PC, Suguna S, Vallikkannu N, Hassan J. Predictors of newborn admission after labour induction at term: Bishop score, pre-induction ultrasonography and clinical risk factors. *Singapore medical journal* [Internet]. 2008 [cited 2025 Apr 24];49(3):193. Available from: https://www.researchgate.net/profile/Jamiyah-Hassan/publication/5489395_Predictors_of_newborn_admission_after_labour_induction_at_term_Bishop_score_pre-induction_ultrasonography_and_clinical_risk_factors/links/55a4d9ef08ae5e82ab1f6355/Predictors-of-newborn-admission-after-labour-induction-at-term-Bishop-score-pre-induction-ultrasonography-and-clinical-risk-factors.pdf
22. Eggebø TM, Økland I, Heien C, Gjessing LK, Romundstad P, Salvesen KA. Can ultrasound measurements replace digitally assessed elements of the Bishop score? *Acta Obstet Gynecol Scand*. 2009;88(3):325–31.
23. Gokturk U, Cavkaytar S, Danisman N. Can measurement of cervical length, fetal head position and posterior cervical angle be an alternative method to Bishop score in the prediction of successful labor induction? *J Matern Fetal Neonatal Med*. 2015 Jul;28(11):1360–5.
24. Akram H, Khan Z, Rana T. Vaginal Prostaglandin E2 pessary versus gel in induction of labor at term. *Annals of King Edward Medical University* [Internet]. 2005 [cited 2025 Apr 24];11(4). Available from: <https://annalskemu.org/journal/index.php/annals/article/view/1052>
25. Yogev Y, Ben-Haroush A, Chen R, Glickman H, Kaplan B, Hod M. Active induction management of labor for diabetic pregnancies at term; mode of delivery and fetal outcome--a single center experience. *Eur J Obstet Gynecol Reprod Biol*. 2004 Jun 15;114(2):166–70.
26. Rezaie M, Shahoei R, Shahgeabi S. Comparative Efficacy of Misoprostol Versus Dinoprostone for Induction of Labor at Term Pregnancy. *Medical Journal of Tabriz University of Medical Sciences & Health Services* [Internet]. 2012 [cited 2025 Apr 24];34(5). Available from: <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=16085671&AN=85364473&h=oQP03v8Vh6Rg7zmVQSyASx12w2jCLzt7o5ucDciKzeQfJC2sjqo>

- zuq2wyNxo%2BREx9MY2mqyOW49Vm%2BjLjnd4MQ%3D%3D&crl=c
27. Gupta S, Hak J, Kumar D. Comparative Study of Efficacy of Misoprostol Vs Dinoprostone Gel For Induction of Labour. *JK Science [Internet]*. 2015 [cited 2025 Apr 24];17(3). Available from: [https://www.jkscience.org/archives/volume173/4-Original%20Article%20-17\(3\)%20issue.pdf](https://www.jkscience.org/archives/volume173/4-Original%20Article%20-17(3)%20issue.pdf)
 28. Aryal S, Karki C. Induction of Labour in Prelabour Rupture of Membranes with or without Cervical Ripening with Prostaglandin E2. *Journal of Lumbini Medical College [Internet]*. 2014 Jun 30 [cited 2025 Apr 24];2(1):4–9. Available from: <https://mail.jlmc.edu.np/index.php/JLMC/article/view/46>
 29. Yadav P, Shrivastava VR. Outcome of induction of labour with dinoprostone at a teaching hospital in Nepal. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology [Internet]*. 2017 Mar 30 [cited 2025 Apr 24];6(4):1170–3. Available from: <https://www.ijrcog.org/index.php/ijrcog/article/view/1147>
 30. Lonimitdee K, Prommas S. Placental weight for gestational age and adverse neonatal outcome at Bhumibol Adulyadej Hospital. *Thai Journal of Obstetrics and Gynaecology [Internet]*. 2015 [cited 2025 Apr 24];211–5. Available from: <https://he02.tci-thaijo.org/index.php/tjog/article/view/22959>
 31. Khooshideh M, Nariman S, Safari S, Shahriari A. The Comparison of Perinatal Outcomes in Early Delivery Versus Postdate Labor. *J Compr Ped [Internet]*. 2017 [cited 2025 Apr 24];8(1). Available from: <https://brieflands.com/articles/jcp-55739#abstract>
 32. Chun D, Yoo EH, Lee JY, Kim HM, Kim MJ, Seong WJ, et al. Comparison of Perinatal Outcomes in Late Preterm Spontaneous and Indicated Preterm Birth Neonates. *Open Journal of Obstetrics and Gynecology [Internet]*. 2016 Nov 4 [cited 2025 Apr 24];6(12):661–8. Available from: <https://www.scirp.org/journal/paperinformation?paperid=71793>