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Date: 18 Jul 2017

Sources Searched: PubMed, Embase, CINAHL.

Out Patient Propess Induction

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1. Observational Study of Neonatal Safety for Outpatient Labour Induction Priming with Dinoprostone Vaginal Insert

Author(s): Cundiff G.W.; Simpson M.L.; Koenig N.; Lee T.

Source: Journal of Obstetrics and Gynaecology Canada; May 2017; vol. 39 (no. 5); p. 354-360

Publication Date: May 2017

Publication Type(s): Article

Abstract: Objectives To evaluate the safety of outpatient induction with dinoprostone insert in low-risk labour inductions for premature rupture of membranes or postdates gestation. Methods This retrospective cohort study compared outpatient labour induction priming with inpatient induction in terms of neonatal safety, mode of delivery, and obstetrical parameters. The sample included all inductions for premature rupture of membranes or postdate gestation. The analysis used logistic regression. The statistical power of the sample was 80% to detect a difference of 5.6% for the composite neonatal safety outcome (5-minute Apgar score 12 hours or transfer to a level III nursery). Results Compared with the inpatient cohort (n = 568), the outpatient cohort (n = 611) included more postdate gestations (93% vs. 67%) with less cervical dilatation (0.5 cm vs. 1.0 cm) and larger infants (3705 g vs. 3551 g). There were no differences in measures of neonatal safety or mode of delivery. The outpatient cohort required more dinoprostone inserts (1.59 vs. 1.23) and were less likely to deliver within 24 hours (OR 0.24, 95% CI 0.17 to 0.34) but were also less likely to deliver by CS (OR 0.71, 95% CI 0.54 to 0.95), after adjusting for obstetrical parameters. Conclusion An outpatient model of labour induction using dinoprostone inserts is feasible and safe. Copyright © 2017 The Society of Obstetricians and Gynaecologists of Canada/La Societe des obstetriciens et gynecologues du Canada

Database: EMBASE

2. Outpatient induction of labour; A prospective audit

Author(s): Coia T.; Tomlinson L.; Saleemi G.; Clement-Jones M.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Mar 2017; vol. 124 ; p. 119

Publication Date: Mar 2017

Publication Type(s): Conference Abstract

Available in full text at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

Abstract:Introduction In the UK the induction of labour rate exceeds 20% of all births. Providing the opportunity for patients to go home during their induction of labour will promote normality as well as reducing the activity on central labour ward. A recent survey of obstetric units in the UK has shown that 17.6% of centres currently, or soon will, provide outpatient induction of labour services. Few data are available relating to outcomes of outpatient induction of labour (OP IOL). We aim to assess the effectiveness and safety of OP IOL using Propess. Method OP IOL service using Propess was developed at Liverpool Women's Hospital for women with no medical or fetal risk factors; a prospective audit was undertaken. Specific criteria had to be met before outpatient induction was offered. Results In a period of 3 months, 67 patients were listed for OP IOL. Of these 25 proceeded to receive Propess as an outpatient, 18 of the 25 patients (72%) underwent induction for prolonged pregnancy. Twenty-four women went into labour in a mean time of 21 hours 55 minutes following Propess insertion. The mean time from insertion to delivery was 27 hours 3 minutes. Twenty of the 25 (80%) had a vaginal birth and five (20%) delivered by caesarean section; five of them delivered on the Midwifery Led Unit (MLU). All neonates had an Apgar recorded at >7 at 5 minutes. One admission to special care baby unit was required due to pneumothorax. Conclusion These initial data show increased normality for patients undergoing IOL and with further development of the OP IOL policy, the number of women delivering their babies on the MLU is likely to increase. The safety profile is good to date; however, further data collection will be necessary to accurately detect rates of morbidity and mortality. Additional analysis will be necessary to calculate any healthcare cost implications and to evaluate women's perception of OP IOL.

Database: EMBASE

3. Outpatient induction of labour: An audit on efficacy and safety outcome from a tertiary unit in the UK

Author(s): Drymiotou S.; Towolawi A.; Sideris M.; Hogg M.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Mar 2017; vol. 124 ; p. 107

Publication Date: Mar 2017

Publication Type(s): Conference Abstract

Available in full text at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

Abstract:Introduction One in four pregnant women undergo induction of labour (IOL) in the UK, which can be a lengthy process for both women and their families and for obstetric healthcare professionals. Outpatient (OP) IOL with Propess has been recently introduced as a potential alternative for low-risk pregnancies in a tertiary busy obstetric unit in the UK. This primarily aims to improve women's IOL experience and increase efficiency in patient flow. We aim to compare safety and efficacy of OP versus inpatient (IP) IOL. Methods In all, 170 women underwent IP (n = 130) or OP (n = 40) IOL (mean age 31.02 +/- 5.67 years, mean gestation 39.79 +/- 1.72 weeks) between August and October 2015 using Propess according to local Trust guidelines. All OP IOL were deemed as 'low

risk', and from the IP, 102 (60.0%) were high risk, 10 (5.9%) were intermediate and 18 (13.0%) were low risk. Data were prospectively collected and analysed using independent t-test, chi-square test or analysis of variance associations on SPSS for Mac (version 22, IBM Corp., Armonk, NY, USA). Results A total of 104 women (61.2%) were primiparae and 66 (38.8%) were multiparae. Ninety-two (54.1%) were of South Asian origin, 55 (32.4%) were Caucasian and 26 (13.5%) were African or Afro-Caribbean. Thirty-four (26.2%) underwent IP IOL for gestational diabetes mellitus, 17 (13.1%) for hypertensive disorders of pregnancy, 12 (9.2%) for reduced fetal movements, 17 (13.1%) for fetal growth abnormalities, 3 (2.3%) for oligo- or polyhydramnios and 18 (13.8%) for medical conditions, 21 (16.1%) for post-dates and the remaining 8 (6.2%) for maternal request. The remaining 40 women had OP IOL for postdates. The mean time-to-delivery for IP IOL was 48.38 hours versus 36.8 hours for OP IOL (mean difference 11.58, 95% CI 0.66-22.49, $P = 0.038$). There was no statistically significant difference in the mode of delivery for IP versus OP IOL (emergency caesarean section $n = 38$ versus $n = 11$, operative vaginal delivery $n = 21$ versus $n = 8$, $P = 0.561$). The mean length of stay was 5.03 for IP versus 3.32 days for OP (mean difference 1.71, 95% CI 0.61-2.82, $P = 0.03$). When comparing IOL for postdates, the time-to-delivery was shorter for OP versus IP (36.3 versus 42.61), although this did not reach statistical significance ($P > 0.05$). All the Apgar (1, 5, 10 minutes) scores for postdates IOL were significantly better for OP versus IP (8.1 versus 9.0, $P = 0.020$, 9.94 versus 9.63, $P = 0.036$, and 10 versus 9.78, $P = 0.042$, respectively). Conclusion OP IOL is associated with decreased length of stay in hospital, shorter delivery time and better neonatal outcomes as defined by Apgar scores. Therefore, it seems to be an effective and safe mode of IOL for low-risk pregnancies.

Database: EMBASE

4. An ambulatory induction service; the experience of two tertiary obstetric units in the East Midlands

Author(s): Davison J.; Wright G.; Beazer M.; Bartram H.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Mar 2017; vol. 124 ; p. 75-76

Publication Date: Mar 2017

Publication Type(s): Conference Abstract

Available in full text at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

Abstract: Nottingham University Hospital Trust (Queens Medical Centre and Nottingham City Hospital) have set up an outpatient induction service. In 2014, NICE issued guidance stating that it was a 'safe alternative' for low risk women and our trust was eager to offer it to those suitable, particularly in light of increasing induction rates. Our reasoning also included improved patient experience, promotion of normality, and reduced bed occupancy. We developed a guideline and inclusion criteria and evaluated the journey of the women since ambulatory induction commenced in the trust in May 2016. There have been 48 outpatient inductions from May to October 2016. The majority were for post maturity. 64.9% were primiparous. All inductions had 10 mg of dinoprostone (PropressTM). Average time from propress insertion to discharge home was 150 minutes (1-8 hours). Time spent at home before readmission was an average of 11 hours and 10 minutes (2 hours 8 minutes to 24 hours and 8 minutes). The majority required amniotomy 24 hours post PropressTM (33/ 48) and 31.2% subsequently had syntocinon augmentation (15/ 48). Caesarean rate was 29% (14/48) and 27% (13/48) had a normal vaginal birth after propress alone. 20.8% (10/48) had postpartum haemorrhage >1000 ml. 2/48 babies had Apgars ≤ 7 at 5 minutes and there were no neonatal admissions. Our initial experience shows good patient safety with outpatient induction. Provisional patient satisfaction questionnaire data looks positive regardless of delivery mode and we are aiming to conduct a more formal patient satisfaction study.

Database: EMBASE

5. Outpatient induction of labour in the UK: a survey of practice

Author(s): Sharp A.N.; Alfirevic Z.; Stock S.J.

Source: European Journal of Obstetrics Gynecology and Reproductive Biology; Sep 2016; vol. 204 ; p. 21-23

Publication Date: Sep 2016

Publication Type(s): Article

Abstract:Objective To identify the current UK use of outpatient procedures for cervical ripening prior to induction of labour. Study design Postal survey of consultant led obstetric units within the United Kingdom. A questionnaire was sent by post to 210 NHS consultant led obstetric units within the UK. Units that provided outpatient induction of labour (OP IOL) were asked complete a series of questions defining their protocol for risk stratification and management. Results The survey had a 78% response rate. 17.6% of units stated that they currently or soon will provide OP IOL. All units were willing to provide OP IOL for post-dates singleton pregnancies and none provided this service for women with a previous caesarean or multiple pregnancy. 96% of inductions were initiated in a hospital setting prior to discharge home. 84% of units used Propess to initiate OP IOL and 96% had a fetal assessment with CTG. Only 40% of units had a clear mechanism for assessment once the woman had gone home. 72% of units performed regular audit of their practice. Conclusions We suggest that robust comparative research within a UK context is urgently required to establish the safety and cost effectiveness of outpatient induction of labour before this technique becomes fully embedded in clinical care without an adequate evidence base. Copyright © 2016 Elsevier Ireland Ltd

Database: EMBASE

6. Outpatient induction of labour using Propess in low-risk women-is it acceptable without compromising the clinical outcome?

Author(s): Dhavliker M.; Abdulai K.; Davy J.; Vinayagam D.; Hughes P.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Apr 2016; vol. 123 ; p. 42-43

Publication Date: Apr 2016

Publication Type(s): Conference Abstract

Available in full text at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

Abstract:Objective To assess the clinical outcome and acceptability in low-risk women who agree to have outpatient induction of labour (IOL) for postdates. Methods Thirty-three women with uncomplicated pregnancies (41-41+6 weeks) were offered outpatient IOL. Inclusion criteria were: singleton pregnancy, unscarred uterus, Bishops score <7, give informed consent and remain within 30 minutes distance of the hospital. Computerised cardiotocogram monitoring was performed before and after prostaglandin insertion. Patients were discharged home overnight and given instructions on when to return to hospital. After 24 hours, they were admitted to the ward for assessment. Results Of 33 women who had outpatient IOL, eight (24%) had spontaneous vaginal delivery, 15 (45%) had assisted vaginal delivery and 11 (33%) had emergency caesarean sections. The indications for caesarean sections were: failure to progress (n = 6), failed induction (n = 1), chorioamnionitis (n = 2) and failed operative vaginal delivery (n = 2). In 19 women (57%), labour was established with prostaglandin E2 alone. Artificial rupture of membranes for augmentation was performed in 15 (45%). Syntocinon for augmentation was required in 17 (51%) women. Twenty-five (75%) women returned to hospital within 24 hours, 42% (n = 14) in established labour. We obtained feedback from 45% (n = 15) of the cohort. Of these women, 87% stated that they were satisfied with

the information given to them and 100% said they would be likely (67%) or extremely likely (33%) to recommend it to other women. Conclusion Maternal satisfaction is high with outpatient IOL. A study with a bigger sample size is needed to evaluate the efficacy and potential hazards of outpatient IOL.

Database: EMBASE

7. Impact of Induction of labour on labour ward and finding alternative ways to improve women satisfaction

Author(s): Mittal S.; Zachariah E.; Lamb F.

Source: Archives of Disease in Childhood: Fetal and Neonatal Edition; Jun 2014; vol. 99

Publication Date: Jun 2014

Publication Type(s): Conference Abstract

Available in full text at [Fetal and Neonatal](#) - from Highwire Press

Abstract: Introduction National UK average of Induction of labour (IOL) is 22.1%. It has huge impacts on labour ward and staffing. Most common pharmacological method used is vaginal PGE2 tablet (Prostin), which requires inpatient stay. Alternative ways like PGE2 pessary (propress) might help in avoiding delays in IOL by reducing examinations or even allowing outpatient IOL. Method A retrospective audit to see delays in IOL in our unit over one-month period. Total inductions were 65 (23.7%), slightly higher than the national average. 49 case notes were retrieved for data analysis. Results Indications were postdates (16), pre-labour rupture of membranes (6), GDM (2), Obstetric cholestasis (4), PET/PIH (6), SGA (4), IUD (1), APH (3) and others in 7 women. Prostin was primary method of IOL in 25 women (1 prostin in 18, 2 prostins in 4, and 3 prostins in 3). Delay in starting IOL from the time of arrival to delivery suite was assessed for different times during the day. Median delay was 77.5 min (range 0-210 mins, SD 57.61709092506) for times 0820-1200 h, 85.0 min (range 25-1500 mins, SD 427.22569367178) for 1320-1900 h and 255 mins (range 0-1140 mins, SD 494.52628848222) for 1900-2135 h. For emergency IOLs in 4 women the median delay was 207.5 mins (range 17-484 mins, SD 200.0049999375) during the daytime. There were further delays identified in between further prostins or artificial rupture of membranes. Conclusion Huge delays were noticed in IOLs especially in evening. Introduction of propress might help in reducing delays and also give opportunity for outpatient IOL; however it requires robust setting and regular audit to ensure safety.

Database: EMBASE

8. Out-patient propress use (Controlled release PGE2 pessary) - Audit of use in district general Hospital

Author(s): Nallapeta S.; Rajesh S.; Burr R.

Source: Archives of Disease in Childhood: Fetal and Neonatal Edition; Apr 2013; vol. 98

Publication Date: Apr 2013

Publication Type(s): Conference Abstract

Available in full text at [Fetal and Neonatal](#) - from Highwire Press

Abstract: Background Propress is a controlled release pessary which releases 0.3 mg of Dinoprostone per hour. As there is constant release rate, this would ensure steady Progesterone concentration and reduce the risk of hyperstimulation. Also, the need for one vaginal examination as opposed to one every 6 hrs improves patient acceptability. Aim The aim of the audit was to look at the practise of using the first Propress on an out-patient basis with informed consent. We looked at the pregnancy outcomes after the Outpatient use of first Propress. Method Prospective audit was done

looking at the practise of using the first Propess. Only low risk patients were given an option for Out-patient Propess. Informed verbal consent was obtained and open access to ward was given after Propess insertion. If anyone needed any further Propess, this was carried out as an in-patient. Initial proforma was filled in by the midwife and the notes were reviewed after delivery. 67% of women who laboured with Propess alone were Nulliparous There were no adverse outcomes. APGARs at 5 min were >9 for all babies No admissions to neonatal unit Avg. blood loss at delivery 388 ml Results We looked the patients between the time period of 15/5/10 to 31/12/10. 57 women opted for Out-patient management. Conclusion Outpatient use of first Propess does not alter pregnancy outcomes and does not increase the risks to baby. When used selectively, the out-patient IOL is safe and effective alternative to patient admission. Out patient use of Propess has decreased hospital stay. 20/57 women did not need a review prior to 24 hrs equalling 480 hours of saved in-patient care.

Database: EMBASE

9. Outpatient Foley catheter versus inpatient prostaglandin E2 gel for induction of labour: A randomised trial

Author(s): Henry A.; Madan A.; Reid R.; Tracy S.K.; Welsh A.; Challis D.; Austin K.

Source: BMC Pregnancy and Childbirth; Jan 2013; vol. 13

Publication Date: Jan 2013

Publication Type(s): Article

PubMedID: 23356673

Available in full text at [BMC Pregnancy and Childbirth](#) - from BioMed Central

Available in full text at [BMC Pregnancy and Childbirth](#) - from National Library of Medicine

Available in full text at [BMC Pregnancy and Childbirth](#) - from ProQuest

Abstract:Background: Induction of labour (IOL) is one of the commonest obstetric interventions, with significant impact on both the individual woman and health service delivery. Outpatient IOL is an attractive option to reduce these impacts. To date there is little data comparing outpatient and inpatient IOL methods, and potential safety concerns (hyperstimulation) if prostaglandins, the standard inpatient IOL medications, are used in the outpatient setting. The purpose of this study was to assess feasibility, clinical effectiveness and patient acceptability of outpatient Foley catheter (OPC) vs. inpatient vaginal PGE2 (IP) for induction of labour (IOL) at term.Methods: Women with an unfavourable cervix requiring IOL at term (N = 101) were randomised to outpatient care using Foley catheter (OPC, n = 50) or inpatient care using vaginal PGE2 (IP, n = 51). OPC group had Foley catheter inserted and were discharged overnight following a reassuring cardiotocograph. IP group received 2 mg/1 mg vaginal PGE2 if nulliparous or 1 mg/1 mg if multiparous. Main outcome measures were inpatient stay (prior to birth, in Birthing Unit, total), mode of birth, induction to delivery interval, adverse reactions and patient satisfaction.Results: OPC group had shorter hospital stay prior to birth (21.3 vs. 32.4 hrs, $p < .001$), IP were more likely to achieve vaginal birth within 12 hours of presenting to Birthing Unit (53% vs. 28%, $p = .01$). Vaginal birth rates (66% OPC Vs. 71% IP), total induction to delivery time (33.5 hrs vs. 31.3 hrs) and total inpatient times (96 hrs OPC Vs. 105 hrs IP) were similar. OPC group felt less pain (significant discomfort 26% Vs 58%, $p = .003$), and had more sleep (5.8 Vs 3.4 hours, $p < .001$), during cervical preparation, but were more likely to require oxytocin IOL (88 Vs 59%, $p = .001$).Conclusions: OPC was feasible and acceptable for IOL of women with an unfavourable cervix at term compared to IP, however did not show a statistically significant reduction in total inpatient stay and was associated with increased oxytocin IOL.Trial registration: Australian New Zealand Clinical Trials Registry, ACTRN:12609000420246. © 2013 Henry et al.; licensee BioMed Central Ltd.

Database: EMBASE

10. Induction of labour in outpatient setting in District General Hospital

Author(s): Anita Rao C.; Joshi M.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Jun 2012; vol. 119 ; p. 7

Publication Date: Jun 2012

Publication Type(s): Conference Abstract

Available in full text at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

Available in full text at [BJOG: An International Journal of Obstetrics and Gynaecology](#) - from John Wiley and Sons

Abstract:Objective: The primary aim of the study was to determine whether the procedure was feasible, effective and safe for mother, foetus, and baby. The secondary aim was to examine the outcomes of various aspects of labour and mode of delivery. Methods: A prospective study involving 210 low risk women which includes well controlled hypertension and Diabetes in pregnancy was undertaken in the year 2011. Outpatient setting of induction of labour (IOL) was defined as initial treatment and monitoring in hospital and discharged home. We chose Propess slow release prostaglandin E2 preparation 10 mg (releasing 300 mg/h). Propess was inserted high into the vagina to sit behind the posterior lip of cervix. Women were sent home 6 h after insertion of Propess. Patients were advised to return when in labour or 24 h after insertion. Results: Of the 210 women in this study 131 were Primigravida and 79 were Multigravida. Pre induction cervical Bishop's score was 4 or less in 88% (186) women. The mean insertion Propess delivery interval was 30 h. Onset of labour (reaching to 4 cm dilatation) in the first 24 h was noted in 63% (132) women. Spontaneous rupture of membranes in the first 24 h occurred in 38% (80) women. Artificial rupture of membranes and Syntocinon was required in 76.6% (160) women. 71% (49) of women had vaginal births and 29% (61) had caesarean sections. The higher caesarean section was observed among Primigravidas. 60% (120) of women delivered before midnight and 40% (90) of women delivered after midnight. Neonatal outcome, the mean birthweight, was 3651 g. In one baby, Apgar score was less than 7 at 5 min. Neonatal admission was reported in four babies. Hyper stimulation of the uterus occurred in 1% (2) women. Conclusion: Outpatient setting of IOL in low risk women is feasible, effective and safe. The secondary outcomes were similar to that of inpatient induction of labour. This procedure had the advantage of less usage of medical professional time and NHS resources.

Database: EMBASE

11. Induction of labour (IOL): Women's satisfaction in the inpatient and outpatient settings

Author(s): Taylor-Clarke M.; Wahba J.; Touqmatchi D.; Rowland C.; Baithun M.; Akmal S.

Source: Archives of Disease in Childhood: Fetal and Neonatal Edition; Apr 2012; vol. 97

Publication Date: Apr 2012

Publication Type(s): Conference Abstract

Available in full text at [Fetal and Neonatal](#) - from Highwire Press

Abstract:Ensuring a positive childbirth experience is a central feature of running a modern maternity service. Support, information and expectation all contribute to perception of care. Our aim was to compare women's experience of induction in inpatient and outpatient settings. 166 consecutive primiparous women underwent IOL with Dinoprostone 10mg retrievable pessary from October 2010 to March 2011, according to our standard protocol. Low risk women were offered outpatient IOL resulting in 80 outpatient and 86 inpatient inductions. 76 women completed a 7-item 5-point rating scale questionnaire (response rate 42% IP vs 50% OP, $p=0.3$). Records were reviewed for pregnancy and birth characteristics. There were no significant differences between inpatient and outpatient respondents for maternal age ($p=0.3$), time from induction to delivery ($p=0.6$), mode of delivery ($p=0.1$), epidural anaesthesia ($p=0.3$) or Apgar scores ($p=0.9$). Mann-Whitney U comparisons showed that both groups felt equally well informed about the induction process ($p=0.7$), did not feel anxious or unsupported ($p=0.5$) and were overall satisfied with the induction ($p=0.3$). Outpatient women were more likely than inpatients to consider outpatient IOL in future ($p<0.05$). Women who reported IOL was 'better than expected' had shorter induction to delivery intervals ($T=6.5$, $p<0.05$). There was no association between overall satisfaction and mode of delivery ($\text{Chi}^2=7.1$; $p=0.5$) or use of epidural anaesthesia ($\text{Chi}^2=3.6$; $p=0.5$). Satisfaction with IOL is high in risk-stratified women, independent of setting. In appropriately selected women, outpatient IOL is a positive experience that women would consider in future. Shorter induction to delivery interval is associated with more positive perception of induction.

Database: EMBASE

12. Home labour induction with retrievable prostaglandin pessary and continuous telemetric trans-abdominal fetal ECG monitoring

Author(s): Rauf Z.; Stampalija T.; Ilioniu F.P.; Alfirevic Z.; O'Brien E.; Lavender T.

Source: PLoS ONE; Nov 2011; vol. 6 (no. 11)

Publication Date: Nov 2011

Publication Type(s): Article

PubMedID: 22140522

Available in full text at [PLoS One](#) - from ProQuest

Available in full text at [PLoS ONE](#) - from National Library of Medicine

Available in full text at [PLoS One](#) - from Allen Press

Abstract:Objective: To evaluate the feasibility of continuous telemetric trans-abdominal fetal electrocardiogram (a-fECG) in women undergoing labour induction at home. Study Design: Low risk women with singleton term pregnancy undergoing labour induction with retrievable, slow-release dinoprostone pessaries ($n = 70$) were allowed home for up to 24 hours, while a-fECG and uterine activity were monitored in hospital via wireless technology. Semi-structured diaries were analysed using a combined descriptive and interpretive approach. Results: 62/70 women (89%) had successful home monitoring; 8 women (11%) were recalled because of signal loss. Home monitoring lasted between 2-22 hours (median 10 hours). Good quality signal was achieved most of the time (86%, SD 10%). 3 women were recalled back to hospital for suspicious a-fECG. In 2 cases suspicious a-fECG

persisted, requiring Caesarean section after recall to hospital. 48/51 women who returned the diary coped well (94%); 46/51 were satisfied with home monitoring (90%). Conclusions: Continuous telemetric trans-abdominal fetal ECG monitoring of ambulatory women undergoing labour induction is feasible and acceptable to women. © 2011 Rauf et al.

Database: EMBASE

13. Remote fetal ECG monitoring and outpatient labour induction

Author(s): Rauf Z.; Stampalija T.; Popescu F.; Alfirevic Z.; O'Brien E.; Lavender T.

Source: Archives of Disease in Childhood: Fetal and Neonatal Edition; Jun 2011; vol. 96

Publication Date: Jun 2011

Publication Type(s): Conference Abstract

Available in full text at [Fetal and Neonatal](#) - from Highwire Press

Abstract:Aim: To evaluate the feasibility of trans-abdominal fetal ECG (aECG) monitoring with portable device (MONICA AN24) during outpatient labour induction. Methods: Low risk post-term women induced with slow release PG E2 pessaries (10 mg) were allowed home for up to 24 h, while aECG, uterine activity and maternal heart rate were continuously monitored. aECG signal was transmitted from the portable device to a hospital PC via ordinary mobile phone (Bluetooth) using Trium CTG Online. aECG traces were displayed in real time on a hospital PC and intermittently reviewed by hospital staff. Women were asked to complete diaries and a subgroup was invited for face to face in depth interview. Results: 70 recruited women went home during induction. 17 women stayed at home 10 h. 52 (74%) returned with ruptured membranes/spontaneous labour, 8 (11.4%) recalled for signal loss, 3 (4.2%) with non-reassuring trace and 7 (10%) electively at 24 h. 55 women (79%) had vaginal delivery. 51 diaries were returned. Participants' location preferences demonstrated that, during induction of labour, women would rather be at home (n=47) than in hospital (n=4). Mean diary ratings indicated that women coped very well at home (n=48); they were very comfortable wearing the device (n=46) and were very satisfied with the outpatient monitoring (n=46). Conclusions: Continuous trans-abdominal ECG monitoring of ambulatory women undergoing induction of labour induction at home is feasible and acceptable to women. The quality of remote signal was of sufficient quality to allow clinical decision making in real time.

Database: EMBASE

14. The home as an appropriate setting for women undertaking cervical ripening before the induction of labour.

Author(s): Reid M; Lorimer K; Norman JE; Bollapragada SS; Norrie J

Source: Midwifery; Feb 2011; vol. 27 (no. 1); p. 30-35

Publication Date: Feb 2011

Publication Type(s): Academic Journal

PubMedID: 20045584

Available in print at [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#) - from Midwifery

Abstract:Abstract: Objectives: to explore women's experiences of cervical ripening using isosorbide mononitrate (IMN) in the home as part of the main randomised controlled trial. Design: qualitative study with semi-structured interviews carried out at three weeks post partum. Interview transcripts were analysed to identify recurrent themes, focusing on why women became involved in the study, their views about both the self-medication and the home setting, and whether they would repeat

the experience. Setting: the home. Participants: twenty women enrolled in the main randomised controlled trial. Intervention: the study is part of a double-blind randomised controlled trial with 350 patients investigating whether a nitric oxide donor (IMN) used in cervical ripening improves the process of induction of labour. Findings: women liked the opportunity to remain at home during the cervical ripening process. Timing and setting were central issues; women hoped that it would hasten labour, while the home was seen as a setting offering freedom, security and reassurance, as opposed to the hospital, seen as constraining. Two women reported problems with IMN but the remainder reported that they would repeat the experience. Implications for practice: women were very positive about the opportunity to undertake cervical ripening at home. It is important to explore this setting further for appropriate interventions.

Database: CINAHL

15. Continuous remote fetal monitoring with MONICA AN24 during home induction of labor

Author(s): Rauf Z.; Alfirevic Z.

Source: American Journal of Obstetrics and Gynecology; Jan 2011; vol. 204 (no. 1)

Publication Date: Jan 2011

Publication Type(s): Conference Abstract

Abstract:OBJECTIVE: To evaluate the feasibility of external fetal ECG (FECG) monitoring device (MONICA AN24) for remote fetal monitoring during outpatient labor induction STUDY DESIGN: Low risk post-term women induced with slow release dinoprostone pessaries (10mg) were allowed home for a maximum of 24 hours whilst being continuously monitored with MONICA AN24. Eligibility criteria: singleton pregnancy, cephalic presentation, parity < 4, Bishop score < 6, intact membranes, normal FECG 60 minutes after insertion of vaginal pessary, access to private transport allowing return to hospital within 30 mins and access to telephone. FECG signal was transmitted from the portable MONICA AN24 (Fig 1) to a hospital PC via ordinary cell phone (Bluetooth) using Trium CTG Online. Women were advised to return to hospital with vaginal bleeding, painful uterine contractions, rupture of membranes or when pessary fell out. They were contacted in case of signal loss or FECG transmission failure and asked to return to hospital if connection could not be re-established. FECG traces were displayed in real time on the hospital PC and intermittently reviewed by hospital staff. Women were asked to complete diaries and a subgroup was invited for face to face in depth interview. RESULTS: Out of 44 women who were monitored at home, only 6 were asked to lie down for 30 minutes to improve the quality of recordings when too much loss of contact was noted. 4 had to be recalled to be monitored as in-patients (Table 1). 2 babies developed non-reassuring trace and needed CS 2 and 4 hours later. 25 diaries were returned containing a total of 99 diary entries. The diary data suggest that the majority of women were comfortable wearing the monitoring device and coped well at home. CONCLUSIONS: Our study confirms that the use of MONICA AN24 for monitoring of ambulatory women undergoing labor induction is feasible and acceptable to women. The quality of remote signal allowed clinical decision making in real time in all women. Women and clinicians have an option to use this technology both as in-patient and out-patient induction of labor.(Table presented).

Database: EMBASE

16. Dinoprostone Vaginal Insert for Labour Induction: A Comparison of Outpatient and Inpatient Settings

Author(s): Salvador S.C.; Lynn Simpson M.; Cundiff G.W.

Source: Journal of Obstetrics and Gynaecology Canada; 2009; vol. 31 (no. 11); p. 1028-1034

Publication Date: 2009

Publication Type(s): Article

PubMedID: 20175341

Abstract:Objective: To determine whether outpatient use of timed-release dinoprostone vaginal inserts is a safe and effective option for induction of labour in appropriate low-risk populations. Methods: We performed a retrospective cohort study of inpatient and outpatient inductions of labour at a level II care hospital between 1998 and 2006. We included women undergoing induction of labour by the use of a dinoprostone vaginal insert, and excluded women with a gestational age of < 37 weeks, previous Caesarean section, multiple gestation, or preadmission intrauterine fetal demise. The outcomes examined were other methods of induction used, method and time of delivery, and fetal outcome defined by Apgar scores, and admissions to the neonatal intensive care unit (NICU). Results: The cohorts included 776 inpatients and 567 outpatients. The outpatient cohort had more post term gestations as the indication for induction (65.43% vs. 30.93%), while the inpatient group was more likely to have indications of premature rupture of membranes (18.94% vs. 6.17%) and gestational hypertension (18.04% vs. 7.05%). Outpatients had significantly higher use of epidural analgesia and oxytocin. Inpatients were more likely to deliver vaginally within 24 hours (OR 2.16; 95% CI 1.57 to 2.97) and also to have a Caesarean section (OR 1.50, 95% CI 1.14 to 1.98). None of the women in the outpatient group had serious complications as an outpatient, and there were no significant differences in fetal outcomes as measured by admission to NICU and Apgar score at 5 minutes. Conclusion: This study supports the use of controlled-release dinoprostone vaginal inserts in the outpatient setting as a safe alternative for women with a low-risk pregnancy undergoing induction of labour. Copyright © 2009 Society of Obstetricians and Gynaecologists of Canada.

Database: EMBASE

17. A clinical evaluation of controlled-release dinoprostone for cervical ripening--a review of current evidence in hospital and outpatient settings.

Author(s): Rath W

Source: Journal of perinatal medicine; 2005; vol. 33 (no. 6); p. 491-499

Publication Date: 2005

Publication Type(s): Comparative Study; Journal Article; Review

PubMedID: 16318611

Abstract:Labor induction is used in approximately 20% of pregnancies in Europe and North America. Prostaglandins and prostaglandin analogs are favored when women undergoing labor induction have an unripe cervix. Controlled-release dinoprostone, delivered over 24 h from a vaginal insert, results in cervical ripening within 12 h in most women. It is marginally more effective than immediate release formulations and has similar efficacy to misoprostol, a prostaglandin E1 analog used off-label for this indication. The controlled-release preparation offers many advantages compared with an immediate-release formulation: a single application is sufficient; it is less invasive; it is easily administered and removed, allowing greater dose control. The most significant adverse effect, uterine hyperstimulation, with and without an effect on fetal heart rate, occurs in 5-15% of patients, which is comparable with other formulations or misoprostol. The insert can be removed easily on the first sign of uterine hyperstimulation, or as soon as labor starts. The efficacy and safety of controlled-release dinoprostone are comparable whether it is used in the outpatient or the inpatient

setting. For low-risk women, outpatient use may be a highly attractive option, potentially reducing hospital costs, and improving patient convenience. The ease of use of controlled-release dinoprostone and women's satisfaction emphasize its benefits over many other agents used to ripen the cervix.

Database: PubMed

18. A randomized controlled trial of outpatient versus inpatient labour induction with vaginal controlled-release prostaglandin-E2: effectiveness and satisfaction

Author(s): Biem S.R.; Turnell R.W.; Olatunbosun O.; Tauh M.; Biem H.J.

Source: Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstetrique et gynecologie du Canada : JOGC; Jan 2003; vol. 25 (no. 1); p. 23-31

Publication Date: Jan 2003

Publication Type(s): Article

PubMedID: 12548322

Abstract:BACKGROUND: Outpatient management in obstetrics is expanding, but evidence to support outpatient labour induction is needed. OBJECTIVE: To compare the effectiveness, acceptability, duration of hospitalization, and safety of outpatient and inpatient induction of labour with intravaginal controlled-release prosta-glandin-E2 (CR-PGE2). METHODS: A prospective, randomized, controlled trial enrolled 300 women at term with parity ≤ 5 and singleton pregnancies in cephalic presentation. Each had an unscarred uterus, a normal non-stress test (NST), and a Bishop score of ≤ 6 . After insertion of the CR-PGE2, and 1 hour of monitoring, those in the outpatient group were discharged home, to return with onset of labour or 12 hours later for an NST. If not already in labour 24 hours later, the women returned for inpatient induction. Vaginal examination was not repeated before 24 hours unless the patient was contracting and required analgesia. Inpatients remained on the antepartum ward but were otherwise treated similarly. The women in both groups reported ratings of satisfaction, pain, and anxiety over the telephone until they were in labour. RESULTS: There were 150 women randomized to outpatient and 150 women to inpatient induction of labour. The number of women who were in labour or who delivered by 24 hours in the outpatient group was 115 (0.77, 95% confidence interval [CI] 0.70-0.84) and in the inpatient group was 107 (0.72, 95% CI 0.64-0.79). The median times to labour were 9.8 hours (95% CI, 8.1-11.4) and 11.4 hours (95% CI, 10.1-12.7), and to delivery were 21.4 hours (95% CI, 19.2-23.5) and 20.7 hours (95% CI, 18.4-23.0), for the outpatient and inpatient groups, respectively. In the outpatient group, 56% of women reported high satisfaction during the initial 12 hours of induction compared to 39% in the inpatient group ($p < 0.008$). Ratings of pain and anxiety during the first 12 hours of induction were similar. In the outpatient group, women were at home for a median of 8 hours (95% CI, 6.7-9.4) before labour and delivery. There were no significant differences in adverse outcomes. CONCLUSIONS: This study suggests that outpatient induction of labour with intravaginal CR-PGE2 may be a reasonable option for selected low-risk women; however, further study is needed to confirm the safety of this approach.

Database: EMBASE

19. Outpatient cervical ripening using a sustained-release prostaglandin E2 vaginal insert

Author(s): Tassone S.A.; Pearman C.R.; Rayburn W.F.

Source: Journal of Reproductive Medicine for the Obstetrician and Gynecologist; 2001; vol. 46 (no. 6); p. 599-600

Publication Date: 2001

Publication Type(s): Article

PubMedID: 11441687

Abstract: This clinical trial was undertaken to determine whether a sustained-release prostaglandin E2 vaginal insert could be used for outpatient cervical ripening. A total of 111 patients, with primarily pregnancy-induced hypertension or postdatism, were administered the insert in a simulated outpatient setting. The high rates of regular contractions (23.4%) and of removal of the insert before < 12 hours (27.9%) make its use undesirable outside a hospital.

Database: EMBASE

20. Outpatient use of a sustained-release PGE2 vaginal insert - A retrospective study

Author(s): Sennik B.K.

Source: Today's Therapeutic Trends; 2001; vol. 19 (no. 2); p. 77-84

Publication Date: 2001

Publication Type(s): Article

Abstract: Objective. The aim of this retrospective chart review was to identify potential maternal or fetal safety issues in women undergoing outpatient cervical ripening with a sustained-release PGE2 vaginal insert. Patients and Methods. A review was made of the medical records of all women in whom the insert had been used under this institution's outpatient cervical ripening protocol over a 13-month period. Following a 2-hour monitoring period in the outpatient obstetrical clinic, patients with no adverse events detected (such as excessive uterine activity, non-reassuring fetal heart rate, nausea, vomiting or diarrhea) were discharged home with the insert in place. Patients were to return after 12 hours, or earlier if the membranes ruptured, if labor commenced, or in the event of hyperstimulation or vaginal bleeding. Results. During the 13-month review period, 201 women were treated, of whom 192 were discharged home with the insert in place and 1 was discharged after removal of the insert. Excessive uterine activity occurred in 3 patients during the 2-hour monitoring period and in 2 patients following discharge. Oxytocin was used in 58.2% of the patients, and 73.1% of deliveries were vaginal. All patients gave birth to healthy infants. Mean 1- and 5-minute Apgar scores were 8.3 and 8.9, respectively. Conclusions. This retrospective review showed that outpatient cervical ripening with a sustained-release PGE2 vaginal insert demonstrated no serious adverse outcomes and may have a role in hospital cost-savings and patient convenience.

Database: EMBASE

Strategy 241875

#	Database	Search term	Results
1	EMBASE	(propress).ti,ab	81
2	EMBASE	exp "PROSTAGLANDIN E2"/	51292
3	EMBASE	(dinoprostone).ti,ab	669
4	EMBASE	(1 OR 2 OR 3)	51320
5	EMBASE	(pessar* OR insert* OR tampon*).ti,ab	313601
6	EMBASE	exp "VAGINA PESSARY"/	2223
7	EMBASE	(5 OR 6)	314328
8	EMBASE	(outpatient* OR "out patient*" OR home).ti,ab	468521
9	EMBASE	exp OUTPATIENT/ OR exp "OUTPATIENT CARE"/	117628
10	EMBASE	exp HOME/	7170
11	EMBASE	(8 OR 9 OR 10)	485862
12	EMBASE	(multipar*).ti,ab	24732
13	EMBASE	exp MULTIPARA/	5336
14	EMBASE	(12 OR 13)	26419
15	EMBASE	(4 AND 7 AND 11 AND 14)	2
16	EMBASE	(4 AND 7 AND 11)	27
17	PubMed	(PGE2).ti,ab,af	36079
18	PubMed	(propress).ti,ab	28
20	PubMed	("PROSTAGLANDIN E2").ti,ab,af	21455

21	PubMed	(dinoprostone).ti,ab,af	26697
22	PubMed	(17 OR 18 OR 20 OR 21)	41139
23	PubMed	(pessar* OR insert* OR tampon*).ti,ab,af	264490
24	PubMed	(outpatient* OR "out patient*" OR home OR ambulatory).ti,ab,af	476925
25	PubMed	(22 AND 23 AND 24)	15
26	CINAHL	(propress).ti,ab	2
27	CINAHL	(dinoprostone).ti,ab	99
28	CINAHL	exp DINOPROSTONE/	165
29	CINAHL	(26 OR 27 OR 28)	196
30	CINAHL	(pessar* OR insert* OR tampon*).ti,ab,af	57489
31	CINAHL	exp PESSARIES/	243
32	CINAHL	(30 OR 31)	57489
33	CINAHL	(outpatient* OR "out patient*" OR home OR ambulatory).ti,ab,af	452683
34	CINAHL	exp OUTPATIENTS/	35187
35	CINAHL	exp "OUTPATIENT SERVICE"/	4091
36	CINAHL	exp "AMBULATORY CARE"/	6854
37	CINAHL	exp "COMMUNITY SERVICE"/	877
38	CINAHL	(community).ti,ab,af	456672
39	CINAHL	(34 OR 35 OR 36 OR 37 OR 38)	491500

40	CINAHL	(29 AND 32 AND 39)	2
41	PubMed	(community).ti,ab,af	604197
42	PubMed	(22 AND 23 AND 41)	1
43	EMBASE	(1 AND 11)	11