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Rate of Stillbirth at 42 Weeks of Pregnancy

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1. Risks of stillbirth and neonatal death with advancing gestation at term: A systematic review and meta-analysis of cohort studies of 15 million pregnancies.

Author(s): Muglu, Javaid; Rather, Henna; Arroyo-Manzano, David; Bhattacharya, Sohinee; Balchin, Imelda; Khalil, Asma; Thilaganathan, Basky; Khan, Khalid S; Zamora, Javier; Thangaratinam, Shakila

Source: PLoS medicine; Jul 2019; vol. 16 (no. 7); p. e1002838

Publication Date: Jul 2019

Publication Type(s): Meta-analysis Journal Article Systematic Review

PubMedID: 31265456

Available at PLoS medicine - from Europe PubMed Central - Open Access

Abstract:BACKGROUNDDespite advances in healthcare, stillbirth rates remain relatively unchanged. We conducted a systematic review to quantify the risks of stillbirth and neonatal death at term (from 37 weeks gestation) according to gestational age.METHODS AND FINDINGSWe searched the major electronic databases Medline, Embase, and Google Scholar (January 1990-October 2018) without language restrictions. We included cohort studies on term pregnancies that provided estimates of stillbirths or neonatal deaths by gestation week. We estimated the additional weekly risk of stillbirth in term pregnancies that continued versus delivered at various gestational ages. We compared week-specific neonatal mortality rates by gestational age at delivery. We used mixed-effects logistic regression models with random intercepts, and computed risk ratios (RRs), odds ratios (ORs), and 95% confidence intervals (CIs). Thirteen studies (15 million pregnancies, 17,830 stillbirths) were included. All studies were from high-income countries. Four studies provided the risks of stillbirth in mothers of White and Black race, 2 in mothers of White and Asian race, 5 in mothers of White race only, and 2 in mothers of Black race only. The prospective risk of stillbirth increased with gestational age from 0.11 per 1,000 pregnancies at 37 weeks (95% CI 0.07 to 0.15) to 3.18 per 1,000 at 42 weeks (95% CI 1.84 to 4.35). Neonatal mortality increased when pregnancies continued beyond 41 weeks; the risk increased significantly for deliveries at 42 versus 41 weeks gestation (RR 1.87, 95% CI 1.07 to 2.86, p = 0.012). One additional stillbirth occurred for every 1,449 (95% CI 1,237 to 1,747) pregnancies that advanced from 40 to 41 weeks. Limitations include variations in the definition of low-risk pregnancy, the wide time span of the studies, the use of registry-based data, and potential confounders affecting the outcome.CONCLUSIONSOur findings suggest there is a significant additional risk of stillbirth, with no corresponding reduction in neonatal

mortality, when term pregnancies continue to 41 weeks compared to delivery at 40 weeks.SYSTEMATIC REVIEW REGISTRATIONPROSPERO CRD42015013785.

Database: Medline

2. Immediate perinatal outcomes of postterm deliveries

Author(s): Maoz O.; Wainstock T.; Sheiner E.; Walfisch A.

Source: Journal of Maternal-Fetal and Neonatal Medicine; Jun 2019; vol. 32 (no. 11); p. 1847-1852

Publication Date: Jun 2019

Publication Type(s): Article

PubMedID: 29301466

Abstract: Objective: To investigate whether postterm pregnancy (>=42 0/7 weeks' gestation) increases the risk for adverse perinatal outcome. Study design: In this population based cohort study, all singleton deliveries occurring between 1991 and 2014 in a tertiary medical center were included. Pregnancy and perinatal outcomes were compared between postterm and term deliveries (37 0/7 to 41 6/7 weeks' gestation). Preterm deliveries, unknown gestational age, congenital malformations, and multiple gestations, were excluded. The association between postterm and adverse perinatal outcomes was evaluated using a general estimation equation (GEE) multivariable analyses. Result(s): During the study period, 226,918 deliveries were included in the analysis. Of them, 95.9% (n = 217,544) were term and 4.1% (n = 9374) were postterm. Post-term pregnancies were more likely to be complicated with oligohydramnios, macrosomia, meconium stained amniotic fluid, shoulder dystocia, low Apgar scores, and hysterectomy (p <.05 in all). Perinatal mortality rates were significantly higher at postterm as well. Using the GEE model, the association between postterm and total perinatal mortality persisted (OR = 1.73, 95%CI 1.2-2.4), as well as specifically intrauterine fetal death (OR = 1.76, 95%CI 1.1-2.7) and intrapartum death (OR = 3.71, 95%CI 1.3-10.4). Conclusion(s): Post-term delivery involves higher rates of adverse perinatal outcomes and is independently associated with significant perinatal mortality.

Database: EMBASE

3. Labour Induction at Term - How great is the risk of refusing it?

Author(s):

Source: AIMS Journal; Apr 2019; vol. 31 (no. 1); p. 1-13

Publication Date: Apr 2019

URL https://www.aims.org.uk/journal/item/induction-at-term

Publication Type(s): Periodical

Database: CINAHL

4. Gestational age-specific risk of stillbirth during term pregnancy according to maternal age

Author(s): Wie J.H.; Pak S.E.; Kim R.Y.; Chung Y.H.; Park I.Y.; Shin J.S.; Ko H.S.; Park Y.G.

Source: Archives of Gynecology and Obstetrics; Mar 2019; vol. 299 (no. 3); p. 681-688

Publication Date: Mar 2019

Publication Type(s): Article

PubMedID: 30578438

Abstract: Purpose: To investigate the gestational age-specific risk of stillbirth according to the maternal age group particularly regarding stillbirth risk at the end of pregnancy. Method(s): This study was a retrospective national cohort study of all singleton term pregnancy using the Korean Vital Statistics database (n = 2,798,542). We evaluated the risk of stillbirth by gestational week in mothers aged 20-49 years according to maternal age group and neonatal birth weight. Result(s): The risk of stillbirth in women aged 41 years and older was significantly higher than in women aged 20-29 years between 37 and 40 weeks' gestation. The stillbirth rate per 10,000 ongoing pregnancy in women aged 37-38 years at 39 weeks' gestation (4.22, 95% confidence intervals [CI] 3.01-5.90) and that in women aged 39-40 years at 40 weeks' gestation (8.15, 95% CI 4.83-13.77) were significantly higher in comparison with in those aged 20-29 years at 39 weeks' gestation (1.95, 95% CI 1.64-2.33) and at 40 weeks' gestation (2.59, 95% CI 2.1-3,18). The risk of stillbirth showed an increasing pattern at 40 gestational weeks, in women aged 39 years and older. Conclusion(s): Delivery plan need to be set up and supported to decrease rates of stillbirth at term in women aged 35 years and older with other risk factors and in women aged 37 years and older regardless of risk factors, and especially in women older than 40 years of age.

Database: EMBASE

5. The risk of perinatal mortality with each week of expectant management in obese pregnancies.

Author(s): Yao, Ruofan; Schuh, Brittany L; Caughey, Aaron B

Source: The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians; Feb 2019; vol. 32 (no. 3); p. 434-441

Publication Date: Feb 2019

Publication Type(s): Journal Article

PubMedID: 28922969

Abstract:INTRODUCTIONThe risk of stillbirth associated with maternal obesity increases with gestational age; however, it is unclear if earlier delivery reduces the overall perinatal mortality rate. Our objective was to compare the risk of perinatal mortality associated with each additional week of expectant management to that of immediate delivery.METHODSThis was a retrospective cohort study of singleton non-anomalous births in Texas between 2006 and 2011. Analyses were stratified based on maternal pre-pregnancy BMI class. For each BMI class, we calculated the rate of neonatal death and stillbirth at each week of gestation from 34 to 41 weeks. A composite risk of perinatal mortality associated with 1 week of expectant management was estimated combining the stillbirth rate of the current week and the neonatal death rate of the following week. This was compared with the rate of neonatal death of the current week.RESULTSAfter all exclusions, 2,149,771 births remained for analysis. In the normal weight group, stillbirth risk increased from 0.8 per 10,000 births at 34 weeks to 5.7 per 10,000 births at 42 weeks, whereas the neonatal death risk decreased from 76.5 per 10,000 births at 34 weeks to 30.4 per 10,000 births at 42 weeks, there were no differences between expectant management and delivery for any gestational week. In the obese group, stillbirth risk increased from 1.8 per 10,000 births at 34 weeks to 10.5 per 10,000 births at 42 weeks, whereas the neonatal death risk decreased from 67.7 per 10,000 births at 34 weeks to 26.2 per 10,000 births at 42 weeks, the perinatal mortality risk favored delivery at 39 weeks (RR: 1.17; 99% CI: 1.01-1.36) and not thereafter. In contrast, in the morbidly obese group, stillbirth risk increased from 8.8 per 10,000 births at 34 weeks to 83.7 per 10,000 births at 42 weeks, whereas the neonatal death risk decreased from 63.6 per 10,000 births at 34 weeks to 15.5 per 10,000 births at 42 weeks, the perinatal mortality risk favored delivery from 38 weeks (RR: 1.53; 99% CI: 1.16-2.02) through 41 weeks (RR: 5.39; 99% CI: 1.83-15.88).CONCLUSIONThe findings reported here suggest that delivery by 38 weeks in gestation minimizes perinatal mortality in pregnancies complicated by maternal morbid obesity.

Database: Medline

6. Perinatal death beyond 41 weeks pregnancy: an evaluation of causes and substandard care factors as identified in perinatal audit in the Netherlands.

Author(s): Kortekaas, Joep C; Scheuer, Anke C; de Miranda, Esteriek; van Dijk, Aimée E; Keulen, Judit K J; Bruinsma, Aafke; Mol, Ben W J; Vandenbussche, Frank P H A; van Dillen, Jeroen

Source: BMC pregnancy and childbirth; Sep 2018; vol. 18 (no. 1); p. 380

Publication Date: Sep 2018

Publication Type(s): Journal Article

PubMedID: 30236080

Abstract:BACKGROUNDLate- and postterm pregnancy are associated with adverse perinatal outcomes, like perinatal death. We evaluated causes of death and substandard care factors (SSFs) in term and postterm perinatal death.METHODSWe used data from the Perinatal Audit Registry of the Netherlands (PARS). Women with a term perinatal death registered in PARS were stratified by gestational age into early-/full-term (37.0-40.6) and late-/postterm (≥41.0 weeks) death. Cause of death and SSFs ≥41 weeks were scored and classified by the local perinatal audit teams.RESULTSDuring 2010-2012, 947/479,097 (0.21%) term deaths occurred, from which 707 cases (75%) were registered and could be used for analyses. Five hundred ninety-eight early-/full-term and 109 late-/postterm audited deaths were registered in the PARS database. Of all audited cases of perinatal death in the PARS database, 55.2% in the early-/fullterm group occurred antepartum compared to 42.2% in the late-/postterm group, while intrapartum death occurred in 7.2% in the early-/full-term group compared to 19.3% in the late-/postterm group in the audited cases from the PARS database. According to the local perinatal audit, the most relevant causes of perinatal death ≥41 weeks were antepartum asphyxia (7.3%), intrapartum asphyxia (9.2%), neonatal asphyxia (10.1%) and placental insufficiency (10.1%). In the group with perinatal death ≥41 weeks there was ≥1SSF identified in 68.8%. The most frequent SSFs concerned inadequate cardiotocography (CTG) evaluation and/or classification (10.1%), incomplete registration or documentation in medical files (4.6%) or inadequate action on decreased foetal movements (4.6%).CONCLUSIONSIn the Netherlands Perinatal Audit Registry, stillbirth occurred relatively less often antepartum and more often intrapartum in pregnancies ≥41 weeks compared to pregnancies at 37.0-40.6 weeks in the audited cases from the PARS database. Foetal, intrapartum and neonatal asphyxia were identified more frequently as cause of death in pregnancies ≥41 weeks. The most identified SSFs related to death in pregnancies ≥41 weeks concerned inadequate CTG monitoring (evaluation, classification, registration or documentation) and inadequate action on decreased foetal movements.

Database: Medline

7. Postdates induction of labor-what date is too late? an observational study of 45274 births

Author(s): Mone F.; Carroll S.; McParland P.; Mahony R.; McAuliffe F.M.; Byrne F.

Source: American Journal of Obstetrics and Gynecology; Jan 2017; vol. 216 (no. 1)

Publication Date: Jan 2017

Publication Type(s): Conference Abstract

Abstract:OBJECTIVE: International guidance on induction of labor (IOL) for late-term and post-term pregnancies varies. The objectives of this study were to determine; (i) the trend between rates of obstetric intervention and stillbirth, (ii) the number of potential inductions that can be avoided through deferring IOL to 42+0 weeks for the indication of post-term pregnancy and (iii) stillbirth rates from 40- 41 weeks vs. 41-42 weeks. STUDY DESIGN: This is a retrospective observational study of prospectively collected data, performed in the National Maternity Hospital, Dublin from 2011 to 2015 including a total of 45,274 deliveries. The typical date of IOL for low-risk post-term pregnancy was 42-weeks. Information was gathered on maternal demographics, numbers of inductions, cesarean sections (CS) and stillbirths for all singleton low-risk pregnancies delivered after 37-weeks gestation. Statistical analyses were performed. RESULT(S): The study included 45,274 deliveries over a five-years (2011-15). 53.6% of pregnancies continued beyond 40-weeks gestation. In terms of stillbirths, 86.5% of stillbirths were before 40- weeks. The overall stillbirth rate was 3.6 per 1000 deliveries, with a rate of 0.9 per 1000 in those pregnancies beyond 40-weeks gestation. Despite an increase in rates of CS and IOL (R2=0.9 respectively), the stillbirth rate remained stable (R2=0.004) [See Figure 1]. In terms of prevention of unnecessary IOL, waiting until 41-weeks prevented 1176 inductions (67%) and until 42 weeks, a further 48 inductions (10%) as these women labored spontaneously. Figure 2 demonstrates the number of women that labored spontaneously beyond 40+0 wks. There was no statistical difference in rates of stillbirth between 40-41 weeks and 41-42 weeks (0.06% vs. 0.14% p=0.1). CONCLUSION(S): Induction of labor in low-risk pregnancy for post-term pregnancy performed at 42-weeks gestation does not appear to be associated with a rise in rates of stillbirth and may lead to potential cost-savings without an increase in rates of obstetric intervention. (Figure Presented).

Database: EMBASE

8. Prospective risk of stillbirth near term in low risk pregnancies: A meta-analysis of 8.5 million pregnancies

Author(s): Muglu J.; Thangaratinam S.; Rather H.; Arroyo D.; Zamora J.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Jun 2016; vol. 123 ; p. 59

Publication Date: Jun 2016

Publication Type(s): Conference Abstract

Available at BJOG: An International Journal of Obstetrics & Gynaecology - from Wiley Online Library

Abstract: Introduction Despite advances in antenatal and intrapartum care, the rates of stillbirth have been more or less static in UK with little further improvement in stillbirth rate. Stillbirth accounts for half of all perinatal deaths, and is ten times more common than Sudden Infant Death Syndrome. Stillbirth in otherwise low-risk pregnancies near term is not uncommon and most of these deaths are unexplained. There is a lack of consensus on optimal timing of delivery in low risk pregnancies to avoid stillbirths. Most units in UK delay induction of labour until about 42 weeks of gestation in low risk pregnancies. We conducted a systematic review to quantify the risks of stillbirth and neonatal complications by gestational age in low risk pregnancies. Methods We searched MEDLINE, Embase, and Google Scholar from Jan 1st 1990, to June 04, 2015, without language restrictions for cohort studies, which assessed the risk of stillbirth and neonatal death in low risk pregnancies. We used Newcastle-Ottawa scale for assessment of methodological quality of included studies to measure the risk of bias in selection, comparability and outcomes. We assessed the prospective risk of stillbirth and neonatal mortality at weekly interval in early term and late term gestations. We also performed sub-group analysis of these outcomes according to the ethnicity where it was reported. The PROSPERO ID for this systematic review's protocol is CRD42015013785. Results Of 6080 citations identified, 11 studies met the inclusion criteria corresponding to more than 8.5 million low risk pregnancies. The risk of SB at week 42+0-6 (3.4/1000, 95% CI 2.4- 4.7) is doubled compared to the risk observed at week 41+0-6 (1.7/ 1000, 95% CI 1.4-2.0), and a similar doubling of risk is observed at 43+0-6 (6.7/1000, 95% CI 5.9-7.5) compared to 42+0-6 (3.4/1000, 95% CI 2.4-4.7). The risk at 41+0-6 (1.7/1000, 95% CI 1.4-2.0) is also significantly higher than that observed at 40+0-6 weeks (1.0/ 1000, 95% CI 0.9-1.2). We will be able to provide precise additional estimates if selected for oral presentation. Conclusion All low risk pregnant women especially the ones with known epidemiological risk factors should be given an opportunity to discuss risk of stillbirth at the completion of term. The policy of induction must become flexible with an option of induction of labour from 40 weeks onwards in low risk pregnancies.

Database: EMBASE

9. Asphyxia, Neurologic Morbidity, and Perinatal Mortality in Early-Term and Postterm Birth.

Author(s): Seikku, Laura; Gissler, Mika; Andersson, Sture; Rahkonen, Petri; Stefanovic, Vedran; Tikkanen, Minna; Paavonen, Jorma; Rahkonen, Leena

Source: Pediatrics; Jun 2016; vol. 137 (no. 6)

Publication Date: Jun 2016

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

PubMedID: 27235446

Abstract:BACKGROUND AND OBJECTIVESNeonatal outcomes vary by gestational age. We evaluated the association of early-term, full-term, and postterm birth with asphyxia, neurologic morbidity, and perinatal mortality.METHODSOur register-based study used retrospective data on 214 465 early-term (37(+0)-38(+6) gestational weeks), 859 827 full-term (39(+0)-41(+6)), and 55 189 postterm (≥42(+0)) live-born singletons during 1989-2008 in Finland. Asphyxia parameters were umbilical cord pH and Apgar score at 1 and 5 minutes. Neurologic morbidity outcome measures were cerebral palsy (CP), epilepsy, intellectual disability, and sensorineural defects diagnosed by the age of 4 years. Newborns with major congenital anomalies were excluded from perinatal deaths.RESULTSMultivariate analysis showed that, compared with full-term pregnancies, early-term birth increased the risk for low Apgar score (<4) at 1 and 5 minutes (odds ratio 1.03, 95% confidence interval 1.03-1.04 and 1.24, 1.04-1.49, respectively), CP (1.40, 1.27-1.55), epilepsy (1.14, 1.06-1.23), intellectual disability (1.39, 1.27-1.53), sensorineural defects (1.24, 1.17-1.31), and perinatal mortality (2.40, 2.14-2.69), but risk for low umbilical artery pH ≤7.10 was decreased (0.83, 0.79-0.87). Postterm birth increased the risk for low Apgar score (<4) at 1 minute (1.26, 1.26-1.26) and 5 minutes (1.80, 1.43-2.34), low umbilical artery pH ≤7.10 (1.26, 1.19-1.34), and intellectual disability (1.19, 1.00-1.43), whereas risks for CP (1.03, 0.84-1.26), epilepsy (1.00, 0.87-1.15), sensorineural defects (0.96, 0.86-1.07), and perinatal mortality (0.91, 0.69-1.22) were not increased.CONCLUSIONSEarly-term birth was associated with low Apgar score, increased neurologic morbidity, and perinatal mortality. Asphyxia and intellectual disability were more common among postterm births, but general neurologic morbidity and perinatal mortality were not increased.

Database: Medline

10. Stillbirths: rates, risk factors, and acceleration towards 2030.

Author(s): Lawn, Joy E; Blencowe, Hannah; Waiswa, Peter; Amouzou, Agbessi; Mathers, Colin; Hogan, Dan; Flenady, Vicki; Frøen, J Frederik; Qureshi, Zeshan U; Calderwood, Claire; Shiekh, Suhail; Jassir, Fiorella Bianchi; You, Danzhen; McClure, Elizabeth M; Mathai, Matthews; Cousens, Simon; Lancet Ending Preventable Stillbirths Series study group; Lancet Stillbirth Epidemiology investigator group

Source: Lancet (London, England); Feb 2016; vol. 387 (no. 10018); p. 587-603

Publication Date: Feb 2016

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article Review

PubMedID: 26794078

Abstract: An estimated 2.6 million third trimester stillbirths occurred in 2015 (uncertainty range 2.4-3.0 million). The number of stillbirths has reduced more slowly than has maternal mortality or mortality in children younger than 5 years, which were explicitly targeted in the Millennium Development Goals. The Every Newborn Action Plan has the target of 12 or fewer stillbirths per 1000 births in every country by 2030. 94 mainly high-income countries and upper middle-income countries have already met this target, although with noticeable disparities. At least 56 countries, particularly in Africa and in areas affected by conflict, will have to more than double present progress to reach this target. Most (98%) stillbirths are in low-income and middle-income countries. Improved care at birth is essential to prevent 1.3 million (uncertainty range 1.2-1.6 million) intrapartum stillbirths, end preventable maternal and neonatal deaths, and improve child development. Estimates for stillbirth causation are impeded by various classification systems, but for 18 countries with reliable data, congenital abnormalities account for a median of only 7.4% of stillbirths. Many disorders associated with stillbirths are potentially modifiable and often coexist, such as maternal infections (population attributable fraction: malaria 8.0% and syphilis 7.7%), non-communicable diseases, nutrition and lifestyle factors (each about 10%), and maternal age older than 35 years (6.7%). Prolonged pregnancies contribute to 14.0% of stillbirths. Causal pathways for stillbirth frequently involve impaired placental function, either with fetal growth restriction or preterm labour, or both. Two-thirds of newborns have their births registered. However, less than 5% of neonatal deaths and even fewer stillbirths have death registration. Records and registrations of all births, stillbirths, neonatal, and maternal deaths in a health facility would substantially increase data availability. Improved data alone will not save lives but provide a way to target interventions to reach more than 7000 women every day worldwide who experience the reality of stillbirth.

Database: Medline

11. Trends in Stillbirth by Gestational Age in the United States, 2006-2012.

Author(s): MacDorman, Marian F; Reddy, Uma M; Silver, Robert M

Source: Obstetrics and gynecology; Dec 2015; vol. 126 (no. 6); p. 1146-1150

Publication Date: Dec 2015

Publication Type(s): Comparative Study Journal Article

PubMedID: 26551188

Abstract:OBJECTIVETo evaluate stillbirth trends by gestational age.METHODSNational Center for Health Statistics' fetal death and live birth data files were used to analyze the 2006 and 2012 cohorts of deliveries and compute gestational age-specific stillbirth rates at 20 weeks of gestation or greater using two methods: traditional (eg, stillbirths at 38 weeks of gestation/live births and stillbirths at 38 weeks of gestation) and prospective (stillbirths at 38 weeks of gestation/number of women still pregnant at 38 weeks of gestation). Changes in rates and in the percent distribution of stillbirths and live births were assessed.RESULTSIn 2006 and 2012, the stillbirth rate was 6.05 stillbirths per 1,000 deliveries. There was little change in the percent distribution of stillbirths by gestational age from 2006 to 2012. However, the percent distribution of live births by gestational age changed considerably: births at 34-38 weeks of gestation decreased by 10-16%, and births at 39 weeks of gestation increased by 17%. Traditionally computed stillbirth rates were unchanged at most gestational ages, but rose at 24-27, 34-36, 37, and 38 weeks of gestation. However, rates were influenced by decreases in births at those gestational ages; the pattern of stillbirths by gestational age was unchanged. In contrast, there were no differences in prospective stillbirth rates at 21-42 weeks of gestation.CONCLUSIONThe lack of change in prospective stillbirth rates from 2006 to 2012 suggests that preventing nonmedically indicated deliveries before 39 weeks of gestation did not increase the U.S. stillbirth rate.LEVEL OF EVIDENCEII.

Database: Medline

12. Comparing stillbirth rates in women who have regular scans and induction at term and those that have infrequent scans and induction post term

Author(s): Mone F.; Toner B.; Ong S.

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

Publication Date: Jun 2014

Publication Type(s): Conference Abstract

Available at Archives of Disease in Childhood - Fetal and Neonatal Edition - from BMJ Journals - NHS

Available at Archives of Disease in Childhood - Fetal and Neonatal Edition - from ProQuest (Health Research Premium) - NHS Version

Abstract: Objective To determine the incidence of stillbirth in women who have regular ante-natal ultrasound and induction at term compared to those that have infrequent scans and induction post-term. Study design A retrospective observational study was performed in a tertiary centre with 5,700 deliveries per annum. Data on all deliveries was collected via the Northern Ireland Maternity System Database. Only women with an apparently low risk pregnancy were included. Women who had private antenatal care often had frequent scans and delivery at term. Women who did not have private antenatal care had scans infrequently and delivery post term. The still birth rate was calculated for both groups of women from 2007 to 2011 and compared using a Chi-squared analysis. Results Our study included 23,519 'low-risk' deliveries spanning 2007-2011. This included 2,088 (9%) patients who had frequent ultrasound surveillance and delivery at term and 21,431 (91%) patients who did not. The overall stillbirth rate was 0.34% and 0.20% respectively which was not statistically different (p = 0.31). Conclusion There is no difference in the rate of stillbirth between patients who have more frequent ante-natal ultrasound surveillance and delivery at term compared to those who do not.

Database: EMBASE

13. Perinatal mortality by gestational week and size at birth in singleton pregnancies at and beyond term: a nationwide population-based cohort study.

Author(s): Morken, Nils-Halvdan; Klungsøyr, Kari; Skjaerven, Rolv

Source: BMC pregnancy and childbirth; May 2014; vol. 14 ; p. 172

Publication Date: May 2014

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

PubMedID: 24885576

Available at BMC pregnancy and childbirth - from BioMed Central

Available at BMC pregnancy and childbirth - from SpringerLink - Medicine

Available at BMC pregnancy and childbirth - from Europe PubMed Central - Open Access

Available at BMC pregnancy and childbirth - from ProQuest (Health Research Premium) - NHS Version

Available at BMC pregnancy and childbirth - from Unpaywall

Abstract:BACKGROUNDWhether gestational age per se increases perinatal mortality in post-term pregnancy is unclear. We aimed at assessing gestational week specific perinatal mortality in small-for-gestational-age (SGA) and non-SGA term and post-term gestations, and specifically to evaluate whether the relation between post-term gestation and perinatal mortality differed before and after ultrasound was introduced as the standard method of gestational age estimation.METHODSA population-based cohort study, using data from the Medical Birth Registry of Norway (MBRN), 1967-2006, was designed. Singleton births at 37 through 44 gestational weeks (n = 1 855 682), excluding

preeclampsia, diabetes and fetal anomalies, were included. Odds ratios (OR) with 95% confidence intervals (CI) for perinatal mortality and stillbirth in SGA and non-SGA births by gestational week were calculated.RESULTSSGA infants judged post-term by LMP had significantly higher perinatal mortality than post-term non-SGA infants at 40 weeks, independent of time period (highest during 1999-2006 [OR 9.8, 95% CI: 5.7-17.0]). When comparing years before (1967-1986) versus after (1987-2006) ultrasound was introduced, there was no decrease in the excess mortality for post-term SGA versus non-SGA births (ORs from 6.1 [95% CI: 5.2-7.1] to 6.7 [5.2-8.5]), while mortality at 40 weeks decreased significantly (ORs from 4.6, [4.0-5.3] to 3.2 [2.5-3.9]). When assessing stillbirth risk (1999-2006), more than 40% of SGA stillbirths (11/26) judged to be ≥41 weeks by LMP were shifted to lower gestational ages using ultrasound estimation.CONCLUSIONSMortality risk in post-term infants was strongly associated with growth restriction. Such infants may erroneously be judged younger than they are when using ultrasound estimation, so that the routine assessment for fetal wellbeing in the prolonged gestation may be given too late.

Database: Medline

14. The risk of stillbirth and infant death by each additional week of expectant management stratified by maternal age

Author(s): Page J.M.; Snowden J.M.; Doss A.E.; Caughey A.B.; Cheng Y.W.; Rosenstein M.G.

Source: American Journal of Obstetrics and Gynecology; Oct 2013; vol. 209 (no. 4); p. 375

Publication Date: Oct 2013

Publication Type(s): Conference Paper

PubMedID: 23707677

Available at American journal of obstetrics and gynecology - from Unpaywall

Abstract: Objective The objective of the study was to examine fetal/infant mortality by gestational age at term stratified by maternal age. Study Design A retrospective cohort study was conducted using 2005 US national birth certificate data. For each week of term gestation, the risk of mortality associated with delivery was compared with composite mortality risk of expectant management. The expectant management measure included stillbirth and infant death. This expectant management risk was calculated to estimate the composite mortality risk with remaining pregnant an additional week by combining the risk of stillbirth during the additional week of pregnancy and infant death risk following delivery at the next week. Maternal age was stratified by 35 years or more compared with women younger than 35 years as well as subgroup analyses of younger than 20, 20-34, 35-39, or 40 years old or older. Results The fetal/infant mortality risk of expectant management is greater than the risk of infant death at 39 weeks' gestation in women 35 years old or older (15.2 vs 10.9 of 10,000, P <.05). In women younger than 35 years old, the risk of expectant management also exceeded that of infant death at 39 weeks (21.3 vs 18.8 of 10,000, P <.05). For women younger than 35 years old, the overall expectant management risk is influenced by higher infant death risk and does not rise significantly until 41 weeks compared with women 35 years old or older in which it increased at 40 weeks. Conclusion Risk varies by maternal age, and delivery at 39 weeks minimizes fetal/infant mortality for both groups, although the magnitude of the risk reduction is greater in older women.

Database: EMBASE

15. Postterm pregnancy.

Author(s): Galal, M; Symonds, I; Murray, H; Petraglia, F; Smith, R

Source: Facts, views & vision in ObGyn; 2012; vol. 4 (no. 3); p. 175-187

Publication Date: 2012

UEL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3991404/

Publication Type(s): Journal Article Review

PubMedID: 24753906

Abstract: Postterm pregnancy is a pregnancy that extends to 42 weeks of gestation or beyond. Fetal, neonatal and maternal complications associated with this condition have always been underestimated. It is not well understood why some women become postterm although in obesity, hormonal and genetic factors have been implicated. The management of postterm pregnancy constitutes a challenge to clinicians; knowing who to induce, who will respond to induction and who will require a caesarean section (CS). The current definition and management of postterm pregnancy have been challenged in several studies as the emerging evidence demonstrates that the incidence of complications associated with postterm pregnancy also increase prior to 42 weeks of gestation. For example the incidence of stillbirth increases from 39 weeks onwards with a sharp rise after 40 weeks of gestation. Induction of labour before 42 weeks of gestation has the potential to prevent these complications; however, both patients and clinicians alike are concerned about risks associated with induction of labour such as failure of induction and increases in CS rates. There is a strong body of evidence however that demonstrates that induction of labour at term and prior to 42 weeks of gestation (particularly between 40 & 42 weeks) is associated with a reduction in perinatal complications without an associated increase in CS rates. It seems therefore that a policy of induction of labour at 41 weeks in postterm women could be beneficial with potential improvement in perinatal outcome and a reduction in maternal complications.

Database: Medline

16. Risk of stillbirth and infant death stratified by gestational age.

Author(s): Rosenstein, Melissa G; Cheng, Yvonne W; Snowden, Jonathan M; Nicholson, James M; Caughey, Aaron B

Source: Obstetrics and gynecology; Jul 2012; vol. 120 (no. 1); p. 76-82

Publication Date: Jul 2012

Publication Type(s): Research Support, N.i.h., Extramural Journal Article

PubMedID: 22914394

Available at Obstetrics and gynecology - from Ovid (Journals @ Ovid) - Remote Access

Available at Obstetrics and gynecology - from Unpaywall

Abstract:OBJECTIVETo estimate the multiple dimensions of risk faced by pregnant women and their health care providers when comparing the risks of stillbirth at term with the risk of infant death after birth.METHODSThis is a retrospective cohort study that included all nonanomalous, term deliveries in the state of California from 1997 to 2006 (N=3,820,826). The study compared infant mortality rates after delivery at each week of term pregnancy with the rates of a composite fetal-infant mortality that would occur after expectant management for 1 additional week.RESULTSThe risk of stillbirth at term increases with gestational age from 2.1 per 10,000 ongoing pregnancies at 37 weeks of gestation up to 10.8 per 10,000 ongoing pregnancies at 42 weeks of gestation. At 38 weeks of gestation, the risk of expectant management carries a similar risk of death as delivery, but at each later gestational age, the mortality risk of expectant management is higher than the risk of delivery (39 weeks of gestation: 12.9 compared with 8.8 per 10,000; 40 weeks of gestation: 14.9 compared

with 9.5 per 10,000; 41 weeks of gestation: 17.6 compared with 10.8 per 10,000).CONCLUSIONInfant mortality rates at 39, 40, and 41 weeks of gestation are lower than the overall mortality risk of expectant management for 1 week.

Database: Medline

17. Elective induction for pregnancies at or beyond 41 weeks of gestation and its impact on stillbirths: a systematic review with meta-analysis.

Author(s): Hussain, Arwa Abbas; Yakoob, Mohammad Yawar; Imdad, Aamer; Bhutta, Zulfiqar A

Source: BMC public health; Apr 2011; vol. 11

Publication Date: Apr 2011

Publication Type(s): Research Support, Non-u.s. Gov't Meta-analysis Journal Article Review Systematic Review

PubMedID: 21501456

Available at BMC public health - from BioMed Central

Available at BMC public health - from SpringerLink - Medicine

Available at BMC public health - from Europe PubMed Central - Open Access

Available at BMC public health - from ProQuest (Health Research Premium) - NHS Version

Available at BMC public health - from Unpaywall

Abstract:BACKGROUNDAn important determinant of pregnancy outcome is the timely onset of labor and birth. Prolonged gestation complicates 5% to 10% of all pregnancies and confers increased risk to both the fetus and mother. The purpose of this review was to study the possible impact of induction of labour (IOL) for post-term pregnancies compared to expectant management on stillbirths.METHODSA systematic review of the published studies including randomized controlled trials, quasi- randomized trials and observational studies was conducted. Search engines used were PubMed, the Cochrane Library, the WHO regional databases and hand search of bibliographies. A standardized data abstraction sheet was used. Recommendations have been made for input to the Lives Saved Tool (LiST) model by following standardized guidelines developed by the Child Health Epidemiology Reference Group (CHERG).RESULTSA total of 25 studies were included in this review. Meta-analysis of 14 randomized controlled trials (RCTs) suggests that a policy of elective IOL for pregnancies at or beyond 41 weeks is associated with significantly fewer perinatal deaths (RR = 0.31; 95% CI: 0.11-0.88) compared to expectant management, but no significant difference in the incidence of stillbirth (RR = 0.29; 95% CI: 0.06-1.38) was noted. The included trials evaluating this intervention were small, with few events in the intervention and control group. There was significant decrease in incidence of neonatal morbidity from meconium aspiration (RR = 0.43, 95% CI 0.23-0.79) and macrosomia (RR = 0.72; 95% CI: 0.54 - 0.98). Using CHERG rules, we recommended 69% reduction as a point estimate for the risk of stillbirth with IOL for prolonged gestation (> 41 weeks).CONCLUSIONSInduction of labour appears to be an effective way of reducing perinatal morbidity and mortality associated with post-term pregnancies. It should be offered to women with post-term pregnancies after discussing the benefits and risks of induction of labor.

Database: Medline

18. Pregnancy outcomes at 42 weeks gestation and beyond

Author(s): Gaughan E.; Kent E.; Robson M.; Higgins S.

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

Publication Date: Jan 2011

Publication Type(s): Conference Abstract

Abstract:OBJECTIVE: In our institution there is a policy of deferring induction of labour (IOL) to 42 weeks gestation in the absence of any other clinical indication for delivery. We aim to assess the effect this policy on caesarean section (CS) rates in this group and to examine the effect of parity and presence of a uterine scar on delivery outcome. STUDY DESIGN: A retrospective study in a tertiary referral hospital from 2004-2008. Overall incidence of IOL at 42 weeks was calculated and delivery outcomes were assessed. Comparison was made in outcomes in nulliparous and multiparous patients. The effect of a previous caesarean section was assessed. RESULT(S): In the study period there were 45,600 women delivered of whom 2,368 reached 42 weeks gestation (5.74%). Of this group 84% underwent IOL. In pregnancies reaching 42 weeks gestation vaginal delivery was achieved in 73.6%. For nulliparous patients IOL versus spontaneous onset of labour (SOL) at 42 weeks gestation resulted in significantly higher rates of CS.(31% vs 13.6%, p=0.0001). Low rates of CS were seen in multiparous patients without previous CS at this gestation in both the IOL and no IOL group. (7.63% and 7.4%% respectively).There was no significant difference in the rates of CS in the multiparous women with a history of previous CS in both the IOL and no IOL groups (42.13% and 58% respectively). In the subgroup patients with a uterine scar suitable for IOL 57.9% achieved a vaginal delivery. Of note there were no uterine ruptures in this group thatunderwent IOL. The perinatal mortality rate in the prolonged pregnancy group was 0.84 per 1,000 compared to an overall rate of 7.04 per 1,000 over the 5 year period. There were 6 cases of neonatal hypoxic ischaemic encephalopathy (HIE) in the 2368 women who delivered at 42 weeks [0.0025%] compared with 42 cases of HIE in the overall cohort [0.00092%]. CONCLUSION(S): Apolicy of deferring IOL to 42 weeks in uncomplicated pregnancies is associated with favourable outcomes in terms of vaginal delivery rates. This study finds no evidence that such a policy is associated with an increased risk of perinatal mortality.

Database: EMBASE

19. Pregnancy risk increases from 41 weeks of gestation.

Author(s): Nakling, Jakob; Backe, Bjørn

Source: Acta obstetricia et gynecologica Scandinavica; 2006; vol. 85 (no. 6); p. 663-668

Publication Date: 2006

Publication Type(s): Journal Article

PubMedID: 16752256

Available at Acta obstetricia et gynecologica Scandinavica - from Wiley Online Library

Abstract:BACKGROUNDThe aim of this study was to evaluate the mortality and morbidity of conservatively managed post-term pregnancies (gestation 294 days and beyond).MATERIALS AND METHODSThis is a population-based prospective study. The sample was comprised of all women (N=17,493) with a singleton pregnancy in one Norwegian county from 1989 to 1999, with a second-trimester ultrasound examination and delivery after 37 completed gestational weeks.RESULTSOne thousand three hundred and thirty-six (7.6%) of the deliveries were post-term. In this group, the increase in perinatal mortality reached borderline significance [relative risk (RR) 2.0; 95% confidence interval 0.9-4.6]. Perinatal morbidity expressed as Apgar score <7 at 5 min (RR 2.0; 95% confidence interval 1.2-3.3), and transferal to neonatal intensive care unit (RR 1.6; 95% confidence interval 1.3-2.0) were significantly more frequent. However, RR for perinatal death calculated per 1000 ongoing pregnancies increased significantly from 0.2 in week 37-3.7 in week 42, using perinatal mortality in gestational week 41 as a reference.CONCLUSIONSOur results indicate that expectant management of post-term pregnancies allowing pregnancies to continue up to week 43 carries a risk for perinatal mortality and morbidity. The risk increases already from gestational week 41. The guidelines for management of post-term pregnancies should be revised.

Database: Medline

20. Prolonged pregnancy.

Author(s): Hollis, Brian

Source: Current opinion in obstetrics & gynecology; Apr 2002; vol. 14 (no. 2); p. 203-207

Publication Date: Apr 2002

Publication Type(s): Journal Article Review

PubMedID: 11914699

Available at Current opinion in obstetrics & gynecology - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract: Prolonged pregnancy is defined as any pregnancy that lasts 294 days or more. It is now well recognized that prolonged pregnancy is associated with an increased risk of perinatal mortality and morbidity. It is these complications of pregnancy that have led obstetricians to adopt a policy of induction of labour before the onset of the post-term period. The induction of labour between 41 and 42 weeks is, however, a very crude strategy for reducing term and post-term stillbirth rates. Although the risk of fetal death is increased after 42 weeks, many more fetuses die in utero between 37 and 42 weeks than die in the post-term period. It appears that smaller term fetuses run a greater risk than their larger counterparts, and that current methods of antepartum assessment of the term fetus are still inadequate. It behoves us as obstetricians to improve our capabilities in identifying the compromised fetus at term. This review puts into perspective the most recent publications and highlights areas requiring further study.

Database: Medline

21. Forty weeks and beyond: pregnancy outcomes by week of gestation.

Author(s): Alexander, J M; McIntire, D D; Leveno, K J

Source: Obstetrics and gynecology; Aug 2000; vol. 96 (no. 2); p. 291-294

Publication Date: Aug 2000

Publication Type(s): Journal Article

PubMedID: 10908780

Abstract:OBJECTIVETo assess pregnancy outcomes at 40, 41, and 42 weeks' gestation when labor induction is done routinely at 42 but not 41 weeks.METHODSWe reviewed all singleton pregnancies delivered at 40 or more weeks' gestation between 1988 and 1998 at Parkland Memorial Hospital, Dallas, Texas. We excluded women with hypertension, prior cesarean, diabetes, malformations, breech presentation, and placenta previa. Labor characteristics and neonatal outcomes of pregnancies at 41 and 42 weeks' gestation were compared with pregnancies that ended at 40 weeks. Women with certain dating criteria had induction of labor at 42 weeks. Gestational age was calculated from the last menstrual period (LMP), sonography when available, and clinical examination. If the fundal height between 18 and 30 weeks was within 2 cm of gestational age, the reported LMP was accepted as correct. Sonogram was used to calculate gestational age if a discrepancy was identified. Statistical analysis consisted of chi(2) and analysis of variance.RESULTSWe studied 56,317 pregnancies: 29,136 at 40 weeks, 16,386 at 41 weeks, and 10,795 at 42 weeks. Labor complications increased from 40 to 42 weeks, including oxytocin induction (2% versus 35%, P <.001), length of labor (5.5 +/- 4.9 versus 8.8 +/- 6. 5 hours, P <.001), prolonged second stage of labor (2% versus 4%, P <.001), forceps use (6% versus 9%, P <.001), and cesarean delivery (7% versus 14%, P <.001). Neonatal outcomes were similar in the three groups, including 5-minute Apgar score less than 4, admission to the neonatal intensive care unit (NICU), umbilical artery pH less than 7, seizures, and perinatal mortality. Sepsis was more frequent in the 42-week group than the other groups (0.1 versus 0.3%, P =. 001), as was admission to the NICU (0.4 versus 0.6%, P =.008).CONCLUSIONRoutine labor induction at 41 weeks likely increases labor complications and operative delivery without significantly improving neonatal outcomes.

Database: Medline

22. Outcomes of post-term births: the role of fetal growth restriction and malformations.

Author(s): Clausson, B; Cnattingius, S; Axelsson, O

Source: Obstetrics and gynecology; Nov 1999; vol. 94 (no. 5); p. 758-762

Publication Date: Nov 1999

Publication Type(s): Journal Article

PubMedID: 10546724

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract:OBJECTIVETo evaluate the risks of adverse pregnancy outcomes among term and post-term small for gestational age (SGA) and appropriate for gestational age (AGA) births, before and after excluding infants with congenital malformations.METHODSWe did a population-based study of 510,029 singleton term (37-41 completed weeks) and post-term (at or after 42 weeks) births recorded in the Swedish Birth Register. Odds ratios (ORs) and 95% confidence intervals (CIs) were used to estimate the risks of stillbirth, infant death, convulsions, meconium aspiration, and Apgar score less than 4 at 5 minutes.RESULTSAmong term births, 2.2% were SGA; among post-term births, 3.8% were SGA. Compared with term AGA births, term SGA births were at increased risk of stillbirth (OR 8.02; 95% CI 6.57, 9.80) and infant death (OR 7.57; 95% CI 6.39, 8.96). Among post-term SGA births, the ORs were 10.56 (95% CI 6.95, 16.05) for stillbirth and 5.00 (95% CI 3.04, 8.22) for infant death. When births with congenital malformations were excluded, the risk of infant death decreased considerably. Risks of convulsions and Apgar score less than 4 were higher in SGA than AGA infants. Post-term AGA infants had no significant increase in the risks of stillbirth or infant death but did have increased risks of convulsions, meconium aspiration, and Apgar score less than 4.CONCLUSIONThe increased risk of stillbirth in post-term pregnancies is partly explained by an increased rate of SGA infants. The increased risk of death among SGA infants is caused to a large extent by congenital malformations.

Database: Medline

23. Prospective risk of unexplained stillbirth in singleton pregnancies at term: Population based analysis

Author(s): Cotzias C.S.; Fisk N.M.; Paterson-Brown S.

Source: British Medical Journal; Jul 1999; vol. 319 (no. 7205); p. 287-288

Publication Date: Jul 1999

Publication Type(s): Article

PubMedID: 10426736

Available at BMJ (Clinical research ed.) - from BMJ Journals - NHS

Available at BMJ (Clinical research ed.) - from ProQuest (Health Research Premium) - NHS Version

Available at BMJ (Clinical research ed.) - from PubMed Central

Available at BMJ (Clinical research ed.) - from Unpaywall

Database: EMBASE

24. Fetal and neonatal mortality in the postterm pregnancy: The impact of gestational age and fetal growth restriction

Author(s): Divon M.Y.; Haglund B.; Nisell H.; Otterblad P.O.; Westgren M.; Caritis S.N.; McGregor J.A.

Source: American Journal of Obstetrics and Gynecology; 1998; vol. 178 (no. 4); p. 726-731

Publication Date: 1998

Publication Type(s): Conference Paper

PubMedID: 9579434

Abstract:OBJECTIVE: Our purpose was to examine the impact of gestational age and fetal growth restriction on fetal and neonatal mortality rates in the postterm pregnancy. STUDY DESIGN: All deliveries occurring in Sweden between Jan. 1, 1987, and Dec. 31, 1992, were evaluated for participation in this study. Data were derived from the National Swedish Medical Birth Registry. Pregnancies were selected for inclusion in the study on the basis of the following criteria: (1) singleton pregnancy, (2) reliable dates, (3) gestational age <=40 weeks, and (4) maternal age 15 to 44 years. Fetal growth restriction was defined as birth weight <2 SD below the mean for gestational age. A total of 181,524 pregnancies met the inclusion criteria and formed the study population. Fetal and neonatal mortalities at 40 weeks' gestation were used as reference levels. Logistic regression analysis was used to estimate the independent effects of gestational age and fetal growth restriction on fetal and neonatal mortality rates. RESULT(S): A significant rise in the odds ratio for fetal death was detected from 41 weeks' gestation and on (odds ratios 1.5, 1.8, and 2.9 at 41, 42, and 43 weeks, respectively). Odds ratios for neonatal mortality did not demonstrate a significant gestational age dependency. Fetal growth restriction was associated with significantly higher odds ratios for both fetal and neonatal mortality rates at every gestational age examined (with odds ratios ranging from 7.1 to 10.0 for fetal death and from 3.4 to 9.4 for neonatal death). CONCLUSION(S): Postterm pregnancies have long been considered to be at high risk for adverse perinatal outcome. This study documents a small but significant increase in fetal mortality in accurately dated pregnancies that extend beyond 41 weeks of gestation. This study also demonstrates that fetal growth restriction is independently associated with increased perinatal mortality in these pregnancies.

Database: EMBASE

25. Prolonged pregnancy: evaluating gestation-specific risks of fetal and infant mortality.

Author(s): Hilder, L; Costeloe, K; Thilaganathan, B

Source: British journal of obstetrics and gynaecology; Feb 1998; vol. 105 (no. 2); p. 169-173

Publication Date: Feb 1998

Publication Type(s): Journal Article

PubMedID: 9501781

Abstract:OBJECTIVETo evaluate gestation-specific risks of stillbirth, neonatal and post-neonatal mortality.DESIGNRetrospective analysis of 171,527 notified births (1989-1991) and subsequent infant survival at one year, from community child health records.SETTINGNotifications from maternity units in the North East Thames Region, London.MAIN OUTCOME MEASURESThe incidence of births, stillbirths, neonatal and post-neonatal deaths at each gestation after 28 completed weeks. Mortality rates per 1000 total or live births and per 1000 ongoing pregnancies at each gestation were calculated.RESULTSThe rates of stillbirth at term (2.3 per 1000 total births) and post-term (1.9 per 1000 total births) were similar. When calculated per 1000 ongoing pregnancies, the rate of stillbirth increased six-fold from 0.35 per 1000 ongoing pregnancies at 37 weeks to 2.12 per 1000 ongoing pregnancies at 43 weeks of gestation. Neonatal and post-neonatal mortality rates fell significantly with advancing gestation, from 151.4 and 31.7 per 1000 live births at 28 weeks, to reach a nadir at 41 weeks of gestation (0.7 and 1.3 per 1000 live births, respectively), increasing thereafter in prolonged gestation to 1.6 and 2.1 per 1000 live births at 43 weeks of gestation. When calculated per 1000 ongoing pregnancies, the overall risk of pregnancy loss (stillbirth + infant mortality) increased eight-fold from 0.7 per 1000 ongoing pregnancies at 37 weeks to 5.8 per 1000 ongoing pregnancies at 43 weeks of gestation.CONCLUSIONThe risks of prolonged gestation on pregnancy are better reflected by calculating fetal and infant losses per 1000 ongoing pregnancies. There is a significant increase in the risk of stillbirth, neonatal and post-neonatal mortality in prolonged pregnancy. This study provides accurate data on gestation-specific risks of pregnancy loss, enabling pregnant women and their carers to judge the appropriateness of obstetric intervention.

Database: Medline

26. Stillbirths and rate of neonatal deaths in 76,761 postterm pregnancies in Sweden, 1982-1991: a register study.

Author(s): Ingemarsson, I; Källén, K

Source: Acta obstetricia et gynecologica Scandinavica; Aug 1997; vol. 76 (no. 7); p. 658-662

Publication Date: Aug 1997

Publication Type(s): Journal Article Review

PubMedID: 9292640

Available at Acta obstetricia et gynecologica Scandinavica - from Wiley Online Library

Abstract:OBJECTIVETo study stillbirths and neonatal mortality in the postterm period.DESIGNRegister study of information obtained from the Swedish Medical Birth Registry (MBR), National Board of Health and Welfare, Stockholm.METHODSSingleton pregnancies with deliveries occurring between 1982 and 1991 were selected involving 914,702 women (of whom 76,761 had a postterm pregnancy continuing beyond the 42nd week of amenorrhea). All 2,043 records of dead infants were scrutinized before analysis of neonatal deaths. Stratification was made for year of birth, maternal age, and parity.RESULTSGenerally, the rates of stillbirths and neonatal deaths were low. The stillbirth rate was highest for primiparas at 38 completed weeks (2.72%), lowest at 40 weeks (1.23%), then increasing to 2.26% in the postterm period. The difference vs. multiparas was significant from 41 weeks onwards. Neonatal mortality was increased at 41 completed weeks for primiparas, but for multiparas it changed significantly first in the postterm period. The OR for a primipara to have an intrauterine death increased from 1.50 at 41 weeks (1.0 at 40 weeks) to 1.79 at 42 weeks and beyond. The OR for multiparas showed no sign of increase as gestation progressed.CONCLUSIONSThe results of this study indicate an increased risk of stillbirth with gestational age for primiparas but not for multiparas. The neonatal death rate was increased for both primiparas and multiparas (after 42 completed weeks).

Database: Medline

27. Perinatal mortality in term and post-term births.

Author(s): Fabre, E; González de Agüero, R; de Agustín, J L; Tajada, M; Repollés, S; Sanz, A

Source: Journal of perinatal medicine; 1996; vol. 24 (no. 2); p. 163-169

Publication Date: 1996

Publication Type(s): Journal Article

PubMedID: 8773942

Abstract: Our aim was to compare the fetal mortality rate (FMR), early neonatal mortality rate (ENMR) and perinatal mortality rate (PMR) of post-term and term births, 2) to examine trends in the incidence and perinatal mortality rates of post-term and term births. We used data from Spanish Perinatal Mortality Survey of 1980, 1986, 1989 and 1992. The data include 40,863 post-term births (42 weeks and over) and 517,060 term births (37-41 weeks). Perinatal mortality rates of post-term and term births were compared. The incidence of post-term births was 7.3%. The relative risk (RR) of FMR for post-term compared to term births was 1.1 (95% confidence interval [CI] 0.9-1.3), of ENMR was 1.6 (95% CI 1.4-2.0) and of PMR was 1.3 (95% CI 1.1-1.5). From 1980 to 1992 there was a significant reduction in the incidence of post-term births (8.1% vs 5.0%), in the FMR (4.5/1000 vs 1.9/1000), ENMR (4.3/1000 vs 2.0/1000) and PMR (8.7/1000 vs 3.9/1000) of post-term births. There was no significant difference in the FMR between post-term and term in each year studied. Post-term births had a significantly higher ENMR and PMR than term births in 1980, and they were equivalent from 1983 to 1992. The incidence of post-term births, its FMR, ENMR and PMR have been significantly reduced during the whole period studied.

Database: Medline

28. Risk of unexplained stillbirth at different gestational ages

Author(s): Yudkin P.L.; Wood L.; Redman C.W.G.

Source: Lancet; 1987; vol. 1 (no. 8543); p. 1192-1194

Publication Date: 1987

Publication Type(s): Article

PubMedID: 2883499

Abstract: In 40,635 deliveries in 1978-85, unexplained stillbirths were an important component (nearly a quarter) of all perinatal deaths. The rate of unexplained stillbirth (unexplained stillbirths divided by total births) was highest among preterm deliveries, fell to a minimum at 39-40 weeks' gestation, then rose at 41-42 weeks. Rate is generally accepted as measuring risk, but since it is the population of undelivered, not delivered, infants that is at risk of intrauterine death, stillbirth risk would be better measured as the number of impending stillbirths divided by the total number of undelivered fetuses. With this measure the risk of unexplained stillbirth was least in preterm pregnancies, rising fourfold after 39 weeks to a maximum at 41 weeks. At this time, it was also four times higher than at 33 weeks, in contrast to the rate, which was nineteen times lower.

Database: EMBASE

Strategy 833135

#	Database	Search term	Results
1	Medline	("42 weeks").ti,ab	3027
2	Medline	("forty two weeks").ti,ab	10
3	Medline	exp "PREGNANCY, PROLONGED"/	2644
4	Medline	((postmature OR "post mature" OR prolonged OR postterm OR postdate OR "post term" OR "post date") ADJ2 (pregnan* OR birth* OR deliver*)).ti,ab	3943
5	Medline	(1 OR 2 OR 3 OR 4)	7923
6	Medline	(stillbirth OR stillborn).ti,ab	10543
7	Medline	exp STILLBIRTH/	4709
8	Medline	exp "PERINATAL DEATH"/	1342
9	Medline	(perinatal ADJ2 (death* OR mortality)).ti,ab	15024
10	Medline	(6 OR 7 OR 8 OR 9)	26615
11	Medline	(5 AND 10)	505
12	Medline	(prevalence OR incidence).ti,ab	1270107
13	Medline	exp PREVALENCE/	283948
14	Medline	exp INCIDENCE/	255863
15	Medline	(12 OR 13 OR 14)	1436589
16	Medline	(11 AND 15)	129
17	Medline	(5 AND 15)	885

18	Medline	exp STILLBIRTH/ep	1853
19	Medline	(5 AND 18)	43
20	Medline	((stillborn OR stillbirth) ADJ3 (trends OR incidence OR rate*1 OR prevalence)).ti,ab	1555
21	Medline	(5 AND 20)	49
22	Medline	*"PREGNANCY, PROLONGED"/	1971
23	Medline	(10 AND 22)	137
24	EMBASE	("42 weeks").ti,ab	4359
25	EMBASE	("forty two weeks").ti,ab	10
26	EMBASE	exp "PREGNANCY, PROLONGED"/	2163
27	EMBASE	((postmature OR "post mature" OR prolonged OR postterm OR postdate OR "post term" OR "post date") ADJ2 (pregnan* OR birth* OR deliver*)).ti,ab	3612
28	EMBASE	(24 OR 25 OR 26 OR 27)	8667
29	EMBASE	(stillbirth OR stillborn).ti,ab	14520
30	EMBASE	exp STILLBIRTH/	16973
31	EMBASE	exp "PERINATAL DEATH"/	3789
32	EMBASE	(perinatal ADJ2 (death* OR mortality)).ti,ab	16109
33	EMBASE	(29 OR 30 OR 31 OR 32)	37009
34	EMBASE	(28 AND 33)	676
35	EMBASE	(prevalence OR incidence OR rate*1 OR trends).ti,ab	5209150

36	EMBASE	exp PREVALENCE/	730931
37	EMBASE	exp INCIDENCE/	470844
38	EMBASE	(35 OR 36 OR 37)	5462909
39	EMBASE	(34 AND 38)	405
40	EMBASE	*"GESTATIONAL AGE"/	10968
41	EMBASE	(30 AND 40)	322
42	Medline	*"GESTATIONAL AGE"/	6187
43	Medline	(10 AND 42)	327
44	CINAHL	("42 weeks").ti,ab	513
45	CINAHL	("forty two weeks").ti,ab	1
46	CINAHL	exp "PREGNANCY, PROLONGED"/	381
47	CINAHL	((postmature OR "post mature" OR prolonged OR postterm OR postdate OR "post term" OR "post date") ADJ2 (pregnan* OR birth* OR deliver*)).ti,ab	846
48	CINAHL	(44 OR 45 OR 46 OR 47)	1474
49	CINAHL	(stillbirth OR stillborn).ti,ab	4559
51	CINAHL	exp "PERINATAL DEATH"/	8314
52	CINAHL	(perinatal ADJ2 (death* OR mortality)).ti,ab	3647
53	CINAHL	(49 OR 51 OR 52)	12893
54	CINAHL	(48 AND 53)	171