This syllabus is a collection of the most relevant new publications in Obstetric Anesthesia. My colleagues and I reviewed approximately one thousand manuscripts from sixty-nine journals that were selected from an initial screening of several thousand indexed articles in the English language medical literature.

The references are organized according to the following outline and stratified within categories roughly according to the weight of evidence (systematic reviews and meta analyses, randomized controlled trials, prospective studies, retrospective studies, practice guidelines, reviews, case series, case reports, editorials, letters) and from largest to smallest sample sizes.

OB Anesthetic Issues and Implications
Analgesia for Labor and Delivery
  Alternative Analgesia
  Anatomy
  Breastfeeding Impact
  CSE Technique
  Equipment
  Epidural Techniques
  Forceps Delivery Impact
  Maternal Education
  Maternal Position
  Neonatal Effects
  PCEA
  Pharmacology
  Physiology
  Post Partum Analgesia
  Satisfaction
  Systemic Medication
  Spinal Technique
Anesthesia for Cesarean Delivery
  General Anesthesia
  Post-Cesarean Analgesia
  Postoperative Shivering
  Regional Anesthesia
  Uterotonics
  Vasopressors
Anesthesia for Cerclage Placement
Anesthesia for Tubal Ligation
Complications-Anesthesia
  Allergy
  Cardiac Arrest
  Drug Error
  Equipment
  Fever, Maternal
  Hypotension
  Hypothermia
  Infectious
  Intravenous Toxicity
  Mortality (Anesthetic-Related)
Nausea/Vomiting
Neurologic Injury
Post Dural Puncture Headache/Epidural Blood Patch
Urinary Incontinence/Retention

Coexisting Disease
Autoimmune
Cardiac
Connective Tissue
Dermatologic
Endocrine
Gastrointestinal
Hematologic
Hepatic
Immunologic
Infection
Metabolic
Musculoskeletal
Neoplastic
Neurologic
Obesity
Orthopedic
Pain
Psychiatric
Renal
Respiratory
Substance Abuse
Trauma
Vascular

The Pregnant Patient, Fetus and Newborn
Physiologic Alterations in Women/Pregnancy
Fetus
Prenatal Screening
Fetal Monitoring
Fetal Surgery
Maternal Fever and Neonatal Sepsis Workup
Newborn
Breast Feeding
Cerebral Palsy
Low Birth Weight
Macroabdominopathy
Meconium Aspiration
Morbidity
Mortality
Pharmacology/Teratogenesis
Respiratory Distress
Sepsis
Umbilical Cord Issues

Placental Issues
Obstetric Management Issues
Breech
Cerclage Placement
Cesarean Delivery
Induction/Augmentation of Labor
Infection
Instrumental Delivery
OB Anesthetic Issues and Implications

Analgesia for Labor and Delivery

Alternative Analgesia


   Meta-analysis of 6 studies demonstrating the effectiveness of this alternative treatment for labor pain resulting in an average pain score reduction of 60% for 2 hours
Anatomy

   Observational study (n=121) comparing intervertebral level estimations by palpation to ultrasound showing poor agreement between the two and with the ultrasound estimates frequently more cephalad

   Prospective study which examined the correlation between the assessed puncture level reported by the anesthesiologist and that determined by ultrasound indicating the clinical puncture level was accurate in only 36% of cases

4. **Lee Y, Tanaka M, Carvalho JC. Sonoanatomy of the lumbar spine in patients with previous unintentional dural punctures during labor epidurals. Regional anesthesia and pain medicine 2008;33:266-70.**
   Small observational study (n=18) using ultrasound to evaluate the lumbar anatomy of patients with a history of inadvertent dural puncture demonstrating normal bony symmetry and skin to epidural depth compared with controls but abnormal ligamentum flavum sonoanatomy

5. **D’Alonzo RC, White WD, Schultz JR, Jaklitsch PM, Habib AS. Ethnicity and the distance to the epidural space in parturients. Regional anesthesia and pain medicine 2008;33:24-9.**
   Retrospective analysis (n=3,305) of the skin to epidural space distance demonstrating the influence of BMI and ethnicity (greater depth to space in Caucasians and African Americans as compared with Hispanics and Asians)

Breastfeeding Impact

   Observational study (n=100) comparing breast milk opioid levels in patients who had received epidural or systemic fentanyl

7. **Menon SJ. Psychotropic medication during pregnancy and lactation. Arch Gynecol Obstet 2008;277:1-13.**
   Review article

CSE Technique

   Retrospective chart review (n=6,497) evaluating complications in the first 24 hours after combined spinal-epidural (n=1,964) and epidural (n=4,533) labor analgesia reporting that CSE was associated with higher rates of paresthesias on placement, pruritis, and lower rates of ineffective analgesia necessitating epidural catheter replacement

9. **Chen X, Qian X, Chen H, Dong M. Serum levels of nitric oxide metabolites during labour with or without combined spinal-epidural analgesia. European journal of anaesthesiology 2008: 25(9):708-13.**
   Prospective observational cohort study (n=54) demonstrating that CSE reduced serum nitric oxide metabolites

Equipment

10. **Habib AS, George RB, Allen TK, Olufolabi AJ. A pilot study to compare the Episure Autodetect syringe with the glass syringe for identification of the epidural space in parturients. Anesthesia and analgesia 2008;106:541-3.**
    Pilot study (n=325) comparing a spring-loaded syringe with the standard glass syringe for identification of the epidural space reporting zero analgesic failures with the spring-loaded syringe and five failures with the standard syringe

    Pilot study (n=20) demonstrating the feasibility of using continuous pressure measurements from an injection pump: average pressure of the epidural space was 8 mmHg compared with 79 mmHg for the ligamentum flavum.

12. **Carvalho JC. Ultrasound-facilitated epidurals and spinals in obstetrics. Anesthesiology clinics 2008;26:145-58, vii-viii.**
    Review of ultrasound-facilitated neuraxial techniques
RCT (n=102) demonstrating no analgesic or motor blockade differences between equipotent doses of bupivacaine and ropivacaine for epidural labor analgesia

Double-blind, RCT (n=103) comparing 50 mcg, 75 mcg, and 100 mcg doses of epidural fentanyl in first stage nulliparous labor followed by a dilute bupivacaine/fentanyl infusion showing comparable analgesia in all 3 groups with longer duration in 75mcg group and no further advantages with 100 mcg

RCT (n=80 nulliparae) comparing traditional epidural vs. dural puncture epidural (traditional epidural following a dural puncture with a 25G Whitacre) for labor analgesia demonstrating better early pain relief, improved sacral analgesia, and less frequent one-sided blockade with dural puncture epidural

RCT (n=78) using up-down sequential allocation methodology demonstrating a dose-sparing effect for both sufentanil 5 mcg and clonidine 75 mcg added to epidural ropivacaine for labor analgesia and a local anesthetic sparing potency ratio of sufentanil to clonidine of 15:1

Prospective study (n = 71) using a parallel group up-down sequential allocation method demonstrating a motor block potency ratio at ED50 of 4.1:1 (bupivacaine:lidocaine)

RCT (n=32) showing that a eutectic mixture of lidocaine and tetracaine applied topically for approximately 30 minutes prior to epidural needle insertion provided inferior analgesia compared to subcutaneously infiltrated lidocaine
Letter describing a technique to avoid contamination in the event of epidural catheter and filter disconnection

   An addendum to letter by Dedhia

   Correspondence suggesting the ‘pop’ sign is unreliable as an indicator of dural puncture

Forceps Delivery Impact

   A secondary analysis of the RCT Pushing Early vs. Pushing Late (n=1756) identifying that the inability to sustain optimal labor analgesia is associated with adverse second stage obstetrical outcomes

   Case-controlled study (n = 2072) demonstrating that patient request for supplemental epidural analgesia and obstetrician request to decrease second stage analgesia were both associated with instrumental vaginal delivery

Maternal Education

   Description of a cesarean delivery technique to more closely simulate positive elements of the vaginal delivery experience for the parturient

   MRI evaluation of volunteers (n=30) showing that both the conus medullaris and associated nerve roots shift anteriorly when moving from the supine to the lateral position, which may provide a greater margin of safety during neuraxial blockade

   Transcript of a spirited debate from the annual SOAP meeting concerning maternal positioning for epidural labor analgesia (see Polley, below)

   Transcript of a spirited debate from the annual SOAP meeting concerning maternal positioning for epidural labor analgesia (see Tsen, above)

   The “pro” position of a debate regarding this topic (see Dresner, below)

   The “con” position of a debate regarding this topic (see Russell, above)

Neonatal Effects

   Prospective observational study (n=406) showing lower neonatal BPs associated with regional anesthesia

PCEA

RCT (n=300) showing that PCEA without background infusion (5-mL bolus, 15-min lockout interval) resulted in less local anesthetic consumption but an increased incidence of breakthrough pain, higher pain scores, shorter duration of effective analgesia, and lower maternal satisfaction, when compared with 2 PCEA regimens with background infusion (5-mL bolus, 10–12-min lockout interval, and 5–10 mL/h infusion)

Pharmacology

Physiology
42. Fanning RA, Campion DP, Collins CB, Keely S, Briggs LP, O'Connor JJ, Carey MF. A comparison of the inhibitory effects of bupivacaine and levobupivacaine on isolated human pregnant myometrium contractility. Anesthesia and analgesia 2008;107:1303-7. An in vitro study investigating the effects of bupivacaine and levobupivacaine on the amplitude and frequency of contractions of human term myometrium concluding that a direct effect of local anesthetics is unlikely to explain the association between epidural labor analgesia and instrumental delivery
43. Conell-Price J, Evans JB, Hong D, Shafer S, Flood P. The development and validation of a dynamic model to account for the progress of labor in the assessment of pain. Anesthesia and analgesia 2008;106:1509-15. A retrospective study used to develop and validate a model for describing pain over the course of labor and providing a quantitative method for comparing pain throughout the first stage of labor that is suited to statistical analysis

Postpartum Analgesia
46. Aissaoui Y, Bruyere R, Mustapha H, Bry D, Kamili ND, Miller C. A randomized controlled trial of pudendal nerve block for pain relief after episiotomy. Anesthesia and analgesia 2008;107:625-9. RCT (n=40) reporting that nerve stimulator-guided unilateral pudendal nerve block with ropivacaine 7.5 mg/mL resulted in decreased pain and need for additional analgesics during the first 48 h post-episiotomy

Satisfaction
48. Hug I, Chattopadhyay C, Mitra GR et al. Maternal expectations and birth-related experiences: a survey of pregnant women of mixed parity from Calcutta, India. Int J Obstet Anesth 2008;17:112-7. Study using a standardized questionnaire (n=205) to ascertain prenatal knowledge regarding labor pain and labor analgesia in a representative urban lower- and middle-class Indian population; lack of accurate information affects maternal requests for epidural labor analgesia and/or Cesarean delivery, and thus impacts national health economic planning
49. Orbach-Zinger S, Bardin R, Berestizhevsy Y et al. A survey of attitudes of expectant first-time fathers and mothers toward epidural analgesia for labor. Int J Obstet Anesth 2008;17:243-6. Survey reporting that the decision to use epidural analgesia differs between partners, changes during the course of labor and is unrelated to socio-demographic factors
Survey of laboring women focusing on the psychological effects of regional anesthesia

Spinal Technique
A double blind RCT comparing the incidence of postpartum neurological deficits between continuous intrathecal analgesia (n=274) and epidural analgesia (n=93) reporting no permanent neurological deficits in either group and a higher rate of PDPH (9% vs. 4%), better early analgesia, less motor blockade, more pruritis and higher maternal satisfaction in intrathecal catheter group

Comment on the intrathecal catheter trial by Arkoosh elaborating on advantages and disadvantages of the technique and posing further research questions

Observational study (n=62) reporting a wide range of force required to remove 24-gauge spinal catheters which is not influenced by body position, catheter depth or BMI

Systemic Medication
Double-blinded RCT showing that IV remifentanil (n=24) resulted in no adverse fetal effects but provides inferior analgesia and less favorable maternal side effects compared to epidural analgesia (n=21) during the first stage of labor

A postal survey of Obstetric units in the UK investigating practices surrounding systemic opioid use for labor analgesia revealing that choice of opioid is based on tradition and familiarity (vital signs are monitored in 92% of units, pulse oximetry in 10%, respiratory rate in 5%, and pain scores are monitored in 14% of units)

Comprehensive review of the use of remifentanil in pregnant patients

Review on the use of remifentanil in pregnancy

An editorial position in favor of the availability of remifentanil PCA for those patients who cannot have or do not want epidural labor analgesia (see Van de Velde below)

The author argues that studies assessing the maternal and neonatal safety of remifentanil are necessary before adopting its routine use (see Hill, above)

Anesthesia for Cesarean Delivery

General Anesthesia
Combined prospective observational studies demonstrating increased Mallampati classification (n=61) and decreasing airway volumes (n=21) between pre-labor and post-labor evaluations

Editorial accompanying Kodali et al.
Prospective trial of 20 term parturients showing that 10 L/min fresh gas flow for 3 minutes (as compared with 5 and 15 L/min) was the lowest rate that maximized F\textsubscript{2}O\textsubscript{2} for pre-oxygenation

Unblinded RCT (n = 42) reporting that remifentanil infusion as an adjuvant to general anesthesia for Cesarean delivery was associated with decreased ACTH at uterine incision but also significant neonatal respiratory depression, even at low doses

An analysis of 1095 patients that received general anesthesia for Cesarean delivery revealed a rate of difficult intubation = 3.3%, and a rate of failed intubation = 0.4%.

An analysis of 763 patients that underwent a standardized postoperative interview for awareness after general anesthesia for Cesarean delivery revealing 2 cases of awareness (0.26%)

Observational study (n=40) showing that prior labor was associated with lower intraoperative BIS values during sevoflurane/nitrous oxide general anesthesia and reduced post-op analgesic consumption as compared with women without prior labor

RCT (n=102) of sevoflurane vs. desflurane in cesarean deliveries reporting better NAC scores with desflurane

Prospective observational study of 400 parturients undergoing general anesthesia for Cesarean delivery emphasizing the predictive value of thyromental distance for difficult laryngoscopy (8.7% incidence)

Observational study (n=70) reporting that 48.5–61% of patients had a light, and potentially inadequate, level of anesthesia between laryngoscopy and uterine curettage as assessed by 3 clinical measures, without any subsequently reported awareness

An ex vivo model using human placentas reporting that sevoflurane-mediated vasodilation is NO and cyclooxygenase independent and appears to be mediated in part via a lipoxygenase generated vasodilator eicosanoid

Survey (n=254) of obstetrical anesthesiologists on technique of epidural anesthesia for emergency cesarean delivery

Review describing the application of pharmacogenomic/systems biology approaches and models, as well as protection strategies, in regards to the issue of anesthetic-induced neuronal cell death during development

This review assesses the evidence for the effects of commonly used anesthetics on neuronal structure and neurocognitive function in newborn humans and animals. The evidence for anesthesia-induced neurodegeneration in animal models is compelling, but further studies are warranted.

Review on maternal morbidity and mortality related to failed airway management

Case report of the use of a Combitube in the setting of difficult laryngoscopy with subsequent transient post-operative cranial nerve dysfunction

Monitoring

Randomized double blind control trial (n=40) comparing hemodynamic parameters using intrathecal bupivacaine at 7 and 10 mg doses with or without a phenylephrine infusion for cesarean delivery showing that hemodynamic parameters, particularly CO and SVR as measured with the LiDCO plus monitor, were preserved in the group receiving the 7 mg bupivacaine dose and intravenous phenylephrine infusion

Editorial comment regarding Langesaeter et al. study using noninvasive cardiac output monitoring

Prospective observational study (n=15) showing no clinically significant cardiac output changes immediately in severe preeclamptics following spinal anesthesia but marked increases in CO associated with decreased BP and tachycardia during oxytocin administration using the LiDCOplus monitor

79. Langesaeter E. Is it more informative to focus on cardiac output than blood pressure during spinal anesthesia for cesarean delivery in women with severe preeclampsia? Anesthesiology 2008;108:771-2.
Editorial accompanying Dyer et. al.

80. Pauca AL. Pressure wave analysis is useful to understand the pathophysiology of preeclampsia, but perhaps not the rapid changes during cesarean delivery. Anesthesiology 2008;108:773-4.
Editorial accompanying Dyer et al. discussing the limitations of using the LiDCOplus monitor to evaluate CO in settings with rapid hemodynamic changes particularly with spinal anesthesia, vasopressors and oxytocin administered in preeclamptic patients

Case report outlining the successful management of a Jehovah’s Witness patient with placenta percreta despite a 5500 mL estimated blood loss and refusal of allogenic blood product transfusion with interesting incidental description of hemodynamic response to oxytocin bolus, ascertained via PulseCO monitoring

Case report reporting low BIS values possibly secondary to eclampsia

Post-Cesarean Analgesia

RCT (n=96) demonstrating that intrathecal clonidine 150 mcg combined with bupivacaine was associated with less postoperative antihyperalgesic effect expressed as a significant reduction in the incidence and extent of peri-incisional punctate mechanical hyperalgesia at 48 h after elective cesarean delivery compared with intrathecal clonidine 75mcg-bupivacaine-sufentanil

RCT (n=50) showing that TAP blockade with ropivacaine reduced postoperative VAS pain scores, total morphine requirements in the first 48 postoperative hours, and 12hr morphine consumption compared with placebo

RCT (n = 74) demonstrating decreased morphine consumption and increased patient satisfaction with both paracetamol and diclofenac compared to paracetamol alone post spinal anesthesia for Cesarean delivery
A prospective observational study (n=866) showing that chronic pain is present in up to one third of patients after a Pfannenstiel incision, with nerve entrapment being a common cause of moderate to severe pain.

Prospective observational study (n=588) in post-Cesarean patients receiving intrathecal morphine demonstrating an association between A118G polymorphism at the µ-opioid receptor and 24 hour patient controlled intravenous morphine consumption, pain scores and nausea.

Animal study in pregnant rats reporting that hypogastric nerve excitability is increased at rest and in response to cervical dilation as compared to non-pregnant rats.

Audit of TAP blocks (n=40) demonstrating an increase in time to first request for analgesia and less analgesic consumption in the first 24 hours.

Feasibility study confirming that nocioceptive and inflammatory mediators can be collected from Cesarean delivery wounds.

Review of neuraxial opioids in the obstetric population and the potential adverse effects.

Report of 3 cases of continuous ilioinguinal-iliohypogastric nerve blockade with 0.2% ropivacaine and oral ibuprofen for post-cesarean delivery analgesia showing lower pain scores, less opioid requirements and no nausea/vomiting.

Letter in support of epidural pethidine (meperidine) for postoperative analgesia.

Letter to the editor reporting a case of successful TAP blockade in a patient with an abdominal wall hematoma 48 hours post cesarean delivery.

Postoperative Shivering

Review article on the mechanism and treatment for shivering associated with epidural and spinal anesthesia.

Regional Anesthesia

This two-part observational study showed that rapid crystalloid prehydration did affect CSF flow in the lumbar region as measured by MRI (n=68, RCT) and that prehydration reduced cephalic spread of intrathecal 0.5% isobaric tetracaine and delayed the time to reach the peak sensory level in patients undergoing urologic procedures (n=24).

RCT (n = 72) demonstrating that sequential intrathecal administration of plain and then hyperbaric bupivacaine results in less hypotension than administration of hyperbaric bupivacaine alone.

Editorial regarding Cesur paper in the same month calling for further study to explain Cesur’s unusual results


RCT (n=240) demonstrating negligible effect of epidural volume extension (EVA) on block height of hyper- and isobaric spinal bupivacaine


RCT (n = 80) showing that low dose/opioid regimen (ropivacaine 10 mg/ sufentanil 5 mcg) resulted in less hypotension (20% vs. 55%) and less ephedrine use despite similar sensory blockade characteristics, less motor blockade and a longer duration of analgesia as compared with ropivacaine 15 mg without opioid


Prospective, double-blind study showing a shorter time to achieve a surgical level for c-section using lidocaine 2% with bicarbonate and adrenaline (7 min.) compared with levobupivacaine 0.5% (14 min)


Single hospital prospective converted audit of cesarean deliveries converted from regional to GA


Study suggests preparation of bicarbonate-containing solutions of lidocaine and epinephrine in advance, with storage in the light, is inadvisable due to epinephrine degradation under these conditions.


A letter reporting results of a retrospective audit (n=1,863) regarding CSE for Cesarean delivery reporting a conversion rate to general anesthesia of 1.1% and inadvertent dural puncture rate was 0.6%

Uterotonics


RCT (n=80) reporting oxytocin 2 IU (vs. 5 IU) bolused after delivery followed by an oxytocin infusion of 10 u per hour results in less hemodynamic changes and nausea and with no observed difference in the need for additional uterotonics


RCT (n=50) showing that oxytocin (10 IU IV bolus) induces chest pain, transient profound tachycardia, hypotension, and ECG changes consistent with myocardial ischemia compared with methylergonavine


RCT (n=48) demonstrating no reduction in estimated blood loss but greater nausea and vomiting when ergometrine was added to oxytocin as compared to oxytocin alone


Observational study (n = 6) using continuous pulse power analysis of arterial pressure waveform to show that the hypotension associated with oxytocin administration results from significantly decreased SVR, with compensatory
increases in heart rate, stroke volume and CO leading the authors to recommend abandoning bolus administration of oxytocin

Letter reporting results from a UK survey revealing glyceryl trinitrate is the agent most commonly administered for rapid uterine relaxation during Cesarean delivery under regional anesthesia

Vasopressors

Randomized trial (n=125) reporting that with varying combinations of phenylephrine and ephedrine given by infusion, hemodynamic control was reduced and fetal acid-base status was less favorable as the proportion of phenylephrine decreased and the proportion of ephedrine increased

RCT (n=204) of phenylephrine vs. ephedrine in spinal anesthesia for cesarean delivery reporting that the ephedrine group had higher uterine artery and vein lactate levels and more nausea and vomiting

Review on hypotension in pregnancy and pharmacologic options

Letter stating the phenylephrine and ephedrine are not as effective at restoring diastolic and mean arterial pressures as systolic pressures after spinal anesthesia for Cesarean delivery

Anesthesia for Cerclage Placement

RCT (n = 37) demonstrating that plasma oxytocin levels (primary outcome variable) after cerclage placement were not different based on whether the subjects had general versus spinal anesthesia, although the study was underpowered to detect differences in several important secondary outcomes such as postoperative uterine activity, loss before 20 weeks, and delivery before 37 weeks

Anesthesia for Tubal Ligation

Prospective, controlled trial (n=40) comparing the block characteristics of intrathecal hyperbaric bupivacaine12 mg in patients undergoing Cesarean delivery versus postpartum tubal ligation within 48 hours of delivery (mean time interval 14.5 ± 7.5 hours) and reporting a median maximal block height difference of 1 dermatomal level (T2-CD vs. T3-PPTL) and no other significant differences

Prospective study evaluating the correlation between pre-operative variables and post-operative pain after laparoscopic tubal ligation reporting that pre-surgical clinical pain and pre-operative heat pain sensitivity were important predictors of postoperative pain while psychological factors contributed to a lesser degree

A letter describing pain during fallopian tube manipulation under spinal anesthesia and suggestions for its avoidance
Complications-Anesthesia

Allergy
   Case report, emphasizing advantages and disadvantages of epinephrine administration and timing/mode of delivery of the neonate

Cardiac Arrest
   Observational study (n = 74) evaluating knowledge about ACLS resuscitation of parturients among anesthesiologists, obstetricians and emergency attending and resident physicians reporting that knowledge of important basic concepts, including the need for left uterine displacement and the potential benefit of early Cesarean delivery during cardiac arrest is inadequate among all three specialties
   Survey shows OBs, midwives and anesthesiologists possess inadequate knowledge regarding International Liaison Committee on Resuscitation/American Heart Association recommendations on maternal cardiac arrest resuscitation efforts
   Case report of successful resuscitation from presumed ropivacaine cardiotoxicity

Drug Error
   Case report of the inadvertent epidural administration of potassium chloride with resultant pulmonary edema
   Case report of the inadvertent intrathecal administration of extended release epidural morphine (7.5mg)

Equipment
   Case report of an anesthesia machine-associated fire
   Letter reporting a positive "Trousseau’s Test" occurred in response to automated blood pressure cuff inflation due to hyperventilation-induced decreases in the availability of ionized calcium

Fever, Maternal
   RCT (n = 92) demonstrating lower incidence of maternal fever during only the first 4 hours of intermittent vs. continuous epidural labor analgesia and no differences occurring at other time points, in overall incidence of fever, in mean maternal or neonatal temperatures, or in incidence of neonatal sepsis evaluation

Hypotension
   RCT (n=60) demonstrating a lower incidence of hypotension in patients who had left uterine displacement by a wedge placed under the right lumbar region (47%) as compared with the right pelvis (77%)
   Transcutaneous electrical nerve stimulation at the PC-5 and PC-6 acupoints reduced the severity of hypotension after spinal anaesthesia in patients undergoing Caesarean section. British journal of anaesthesia 2008;100:78-81.
Observational study (n=22) reporting transcutaneous electrical nerve stimulation at traditionally used acupuncture sites known to affect hemodynamics reduced the incidence and severity of spinal-induced hypotension in parturients

Hypothermia

A letter describing hypothermia attributed to postoperative epidural morphine analgesia

Infection

Prospective nonrandomized study in 205 non-obstetric patients with postoperative epidural catheters demonstrating epidural tip (12.2%) and subcutaneous catheter (10.5%) colonization which correlated with skin contamination and flora.

Review of neuraxial anesthesia-related meningitis and epidural abscess with recommendations for prevention

Literature review of the risks of neuraxial anesthesia in the febrile parturient

Letter discussing the risks of meningitis with labor analgesia

Letter advocating the use of masks during the placement of labor analgesia

Intravenous Toxicity

Porcine model of bupivacaine-induced cardiac arrest demonstrating higher coronary perfusion pressure during CPR and survival rates with the combination of vasopressin and epinephrine added to a lipid emulsion compared with lipid emulsion alone

In vitro study of 24 isolated rat hearts demonstrating that alkalization prolongs local anesthetic cellular wash out with implications for ventilatory management in resuscitation of accidental intravascular injection

140. Dillane D, Finucane BT. Bupivacaine cardiotoxicity - hypercarbia is bad but hypocapnia may be worse. Canadian journal of anaesthesia 2008;55:807-12.
Editorial accompanying Mochizuki’s paper on local anesthetic toxicity

Survey results of UK labor wards reporting the presence guidelines for cardiac arrest-55%, lipid emulsion availability-49%, and lipid emulsion inclusion in the guidelines-40%

Case report describing the use of lipid emulsion to successfully manage a patient with CNS toxicity from local anesthetic

Correspondence presenting concern that intralipid is being used prior to the more important aspects of resuscitation

Reply to recent guidelines for treatment of local anaesthetic toxicity by the Association of Anaesthetists demonstrating concern about intralipid’s side effects and its use becoming prophylactic
Mortality (Anesthetic-Related)
Review of maternal morbidity and mortality including the leading anesthetic-related complications
Chapter concerning maternal mortality due to anesthesia, the 18th in a series of reports within the Confidential Enquiries into Maternal and Child Health (CEMACH) in the UK
A comment on the anesthetic- related maternal mortality reported in the Confidential Enquiry into Maternal and Child Health 2003-5, which was the 8th leading cause of maternal mortality and was considered to be due to substandard care in all cases

Nausea/Vomiting
Systematic review of RCTs (1966 –2007) comparing different methods of P6 stimulation with placebo for the prevention of intraoperative and postoperative nausea and vomiting in women having cesarean delivery under neuraxial anesthesia concluding an inconsistent benefit

Neurologic Injury
Practice advisory related to neurologic complications of neuraxial anesthesia excluding those associated with hemorrhage or infection
Broad overview of complications of obstetric regional anesthesia
Review article on the mechanisms of neurologic injury associated with regional anesthesia
Review article of the diagnostic and therapeutic interventions for nerve injuries related to neuraxial anesthesia
Review article of complications associated with neuraxial analgesia in obstetrics
Case report, discussion of mechanism and recommendation for limited work-up
Case report of post-Cesarean disk herniation and neurologic impairment
A letter in which the authors warn of possible ill effects of anesthetics on the developing brain
Letter in response to De le Gala case report

Post-Dural Puncture Headache/Epidural Blood Patch
RCT (n=25) reporting the effectiveness of epidural morphine for the treatment of PDPH with HA rates at 24 hours of 12% vs. 48% in the control group.

Retrospective review (n=17,158 epidural or CSE procedures) reporting the rate of accidental dural puncture or post dural puncture headache without a recognized dural puncture was 0.5%, and among patients with recognized accidental dural punctures, the rate of PDPH was 56%; and EBP was 47%

Retrospective study of one institution’s 23-year history of accidental dural punctures with epidural needles and PDPH headache rate after spinal anesthesia

Survey (n=78) of management strategies for accidental dural puncture in Turkish OB population

Review article

Case report describing calcification in the epidural space following an epidural blood patch leading to surgical evacuation for chronic back pain and radiculopathy

A case report of esotropia secondary to abducens nerve palsy developing 1 week after placement of an epidural blood patch for a known dural puncture which subsequently resolved 4 weeks later

An exploration of dural puncture and epidural blood patch as possible etiologic factors in the development of cerebral venous thrombosis

A letter describing vertigo as a prominent manifestation of dural puncture in a patient with meningitis

A letter reporting successful spinal anesthesia for Cesarean delivery 6 months after an epidural blood patch for post dural puncture headache

Letter describing an epidural blood patch technique using ultrasound guidance

Letter to the editor regarding performing an EBP through an epidural catheter

Case report

Correspondence emphasizing the need for routine follow-up on obstetric patients that receive neuraxial analgesia and anesthesia

Urinary Incontinence/Retention

A case report of bladder rupture 4 days after delivery in a patient who had epidural analgesia for labor and was able to void postpartum
Coexisting Disease

Autoimmune Disorders


The Nationwide Inpatient Sample during '00-'03 showed pregnancies associated with SLE (13,555 deliveries) are at a greater risk for morbidity in pregnancy, including: thrombosis, infection, thrombocytopenia, transfusion, cesarean delivery, pre-term labor, preeclampsia, and are more likely to have co-morbidities, including diabetes, hypertension and thrombophilia


Case report of major fetal malformations diagnosed via U/S at 22 wks gestation, likely caused by mycophenolate mofetil maintenance therapy for a pt with SLE before conception and during the first trimester

Cardiac


Retrospective analysis of 70 cardiomyopathy patients demonstrating progression of symptoms with subsequent pregnancies and poor prognosis associated with an EF of 25% or less at first pregnancy


Retrospective chart review between 2000-2007 demonstrating that, in parturients with known congenital cardiac disease, 20.2% of pregnancies had adverse cardiac events, and 40.5% of pregnancies had adverse obstetric events


Recommended reduction in the indications for the use of prophylactic antibiotics for genitourinary procedures to patients with congenital heart disease, previous infective endocarditis or corrective heart surgery involving prosthetic material


Case-control study of patients with repaired TOF (n=26 cases, 104 controls) demonstrating a higher risk of antenatal complications, lower birth weight and increased use of epidural anesthesia


Case series from Scotland describing the intrapartum management of 6 women with coronary artery disease, 5 stable, and 1 with unstable angina, emphasizing risk stratification


Report of the successful obstetric and anesthetic management of 3 women with CCTGA with review


Case report of the successful use of ketorolac to blunt the hemodynamic responses associated with intubation in a parturient with infective endocarditis with no resultant bleeding complications or adverse fetal effects


Case report of a woman who had a left anterior wall MI in the first trimester, successful revascularization, persistent WMA and MR evaluation to guide management


Case report concerning the addition of bromocriptine to standard therapy for the treatment of peripartum cardiomyopathy

Case report documenting epidural labor analgesia given to a patient with congenitally corrected transposition of the great vessels accompanied by a VSD and pulmonary hypertension, including a discussion of the underlying illness, and its anesthetic implications

A case report and review of right ventricular outflow tract ventricular tachycardia, with an emphasis on the implications of pregnancy

Case report of moderate to severe pulmonary hypertension

Case report of left ventricular apical ballooning and post partum resolution

Case report of Cesarean delivery using inhaled prostacycline for pulmonary hypertension

Case report of successful management of parturient with Familial Dilated Cardiomyopathy for urgent cesarean delivery

A case report describing the presentation and management of Takotsubo cardiomyopathy in a gravid patient

Case report

A letter in response to Behl and Wauchob’s report of CSE labor analgesia in a patient with long QT syndrome

Letter adds to discussion in Cordone’s case report

Letter, in which the authors advocate a “back to basics” approach to clinical medicine

Letter emphasizing the importance of proper intraoperative management of the parturient with symptomatic hypertrophic obstructive cardiomyopathy

Connective Tissue

Nested case control study (n=123) revealing women with newly diagnosed undifferentiated connective tissue disease had increased rates of complications of pregnancy

A retrospective analysis of parturients with systemic sclerosis, primary pulmonary hypertension, or sickle cell disease demonstrating a higher rate of adverse pregnancy outcomes, including increased risks of antenatal hospitalization, hypertensive disorders of pregnancy, and duration of hospital stay

Spinal anesthesia for Hypermobility type (Type III) Ehlers-Danlos syndrome presenting challenges due to severe postural orthostatic hypotension and tachycardia
A case report describing a fatal case of aortic dissection 4 days postpartum in a patient with a family history of Marfan’s Syndrome
Case report emphasizing the importance of maintaining hemodynamic stability in a patient with aortic insufficiency and Harrington rods

Dermatologic
Discussion emphasizes a multi-disciplinary approach with an emphasis on avoidance of injury to the skin and airway.
A case report describing the successful management of eczema herpeticum with acyclovir during pregnancy
Case report of the management of blue rubber bleb nevus syndrome (cutaneous and visceral venous malformations with risk for hemorrhage) and pregnancy
A letter discussing the feasibility and safety of administering neuraxial anesthesia in a patient with extensive psoriatic plaques
Letter
Letter and response discussing the occurrence of Koebner’s phenomenon in patients with psoriasis, and its possible relationship to epidural opioids
Reply to Mahajan letter

Endocrine
Systematic review concluding that there is no information on which to base practice in the treatment of women with ketosis during labor a further research is required to identify more clearly the association between ketosis in labor and pregnancy outcome
An unblinded RCT (n=751) of metformin vs. insulin for gestational diabetes with no differences in composite perinatal outcomes between groups and increased satisfaction with the oral medication
Three trials (n=107) were included in the review. While a low glycemic index diet was seen to be beneficial for some outcomes for both mother and child, results from the review were inconclusive
RCT (n=71) demonstrating that continuous glucose monitoring vs. standard intermittent finger prick self-testing is associated with improved glycemic control, reduced birth weights (69 vs. 93%ile) and reduced macrosomia
Editorial accompanying Murphy et al.
Prospective observational study at 15 centers in 9 countries (n=25,505) demonstrating an association between subdiabetic oral glucose tolerance testing values measured between 24 and 32 weeks EGA and progressive increase in birth weight

Editorial accompanying the Metzger and Rowan’s papers on gestational diabetes

TSH, free T4, and thyroid Ab were measured in paired sera of 9,562 women in the FaSTER trial of Down syndrome screening showing TFT levels require gestation-specific reference ranges

A combined observational study demonstrating an association between an abnormal glucose tolerance test and recurrent miscarriage and a small RCT (n=29) demonstrating an increased incidence of successful pregnancy with metformin vs. placebo

Observational study at 5 recruitment centers (n=389) concluding that more focus should be made to effectively treating women with hypothyroidism who have persistently elevated TSH in the 1st and 2nd trimester

Retrospective review of maternal serum alpha-fetoprotein levels in Type 1 and 2 diabetic patients (77 Type 1 DM pts; 75 Type 2 DM pts; and 304 controls) showing significant difference of MSAPF levels amongst 3 groups and concluding that both Type 1 and 2 diabetics required both weight and DM corrections to adjust MSAPF values to nondiabetic levels to screen for both Down syndrome and neural tube defects

Retrospective cohort study (n=31,074) showing that women with gestational diabetes who have weight gain above recommendations have a higher incidence of preterm birth, macrosomia, and cesarean delivery; while women with gestational diabetes who have weight gain below recommendations have a higher incidence of small for gestational age neonates

Multicenter case-control study of mothers of infants who were born with (n=13,030) and without (n= 4,895) birth defects concluding pre-gestational diabetes (PGDM) was associated significantly with both non-cardiac and cardiac defects, whereas, GDM was associated with fewer non-cardiac and cardiac defects

Cross-sectional analysis (n=4,631) showing women with a history of gestational diabetes but not currently diabetic, had higher fasting plasma glucose and insulin levels, but similar cardiovascular risk profiles compared to women without a history of gestational diabetes

Retrospective study showing the prevalence rate of GDM in the United States has increased dramatically between 1989 and 2004, and there is a widening racial disparity that requires further investigation

Retrospective cohort study (n=1,401) demonstrating that pre-pregnancy weight, insulin therapy during the index pregnancy, neonatal hypoglycaemia, and a subsequent pregnancy with gestational diabetes were associated with an increased risk of developing diabetes mellitus
Retrospective database analysis (n=1332) between 1999-2006 showing that postpartum glucose testing in women with gestational diabetes increased over time, but that 42% of patients did not get a fasting plasma glucose and 21% of patients underwent no postpartum testing

Population based study (n=1,258) finding that perinatal mortality and adverse perinatal outcomes in women with diabetes have decreased

Retrospective study of 89 pregnancies, finding that inadequate antepartum control of thyroid function was associated with the need to increase thyroxine dosage in pregnancy

Cross sectional study to determine reference ranges of FT(3), FT(4) and TSH in pregnant Indian women

Clinical guidelines from the National Institute for Health and Clinical Excellence (NICE)

Review article

A case series of 3 patients with resistance to thyroid hormone whose only symptoms were goiters

Case series (n=3) describing pregnancy risks of adrenal insufficiency

Letter to the editor expressing concern over the conclusion in an earlier article stating that routine screening and empiric treatment for maternal hypothyroidism is not indicated until further studies are done evaluating any effect on pediatric neurocognitive development

Dowswell T, Neilson JP. Interventions for heartburn in pregnancy. Cochrane database of systematic reviews (Online) 2008:CD007065.
Systematic review of 3 studies (n= 286) each examining a different medication to relieve heartburn (intramuscular prostigmine, an antacid preparation and an antacid plus ranitidine) with all demonstrating positive findings in favor of the intervention

Retrospective chart review from 1992-2001 showing that pancreatitis occurs in 3:10,000 pregnancies, with gallstones accounting for 66% of cases, but non-biliary causes having worse outcomes

Review article

Randomized, double blind placebo controlled trial (n=125) of romiplostim (a thrombopoiesis-stimulating protein) vs. placebo in non-pregnant patients with ITP and platelet counts less than 30x10^9/L demonstrating a dramatic, durable increase in platelet counts without untoward side effects

Commentary on the latest in platelet molecular research, the pathophysiology of idiopathic thrombocytopenia purpura and a promising treatment for ITP as presented by Kuter et. al. study using romiplostim, a thrombopoiesis-stimulating protein to increase platelet counts


Nationwide Inpatient Sample from the Healthcare Research and Quality during '00-'03 evaluating all pregnancy-related discharges with a diagnosis of sickle cell disease (17,952 deliveries) showing a greater risk for morbidity in pregnancy than previously estimated, including: increased rates of death, cerebral vein thrombosis, pneumonia, pyelonephritis, DVT, transfusion, postpartum infection, sepsis, SIRS, CD, and pregnancy-related complications (PIH/preeclampsia, eclampsia, abruptio, antepartum bleeding, pre-term labor, fetal growth restriction, cardiomyopathy, or pulmonary HTN).


Review of pregnancy-associated TTP in 166 pregnancies using English publications from '55-'06 suggesting that rapid and readily available lab testing to quickly diagnose TTP and HELLP syndrome/preeclampsia is needed to decrease maternal mortality in this subset


Retrospective cohort study (n=505 cases, 16,320 controls) finding that sickle cell trait is not associated with an increased risk of LGA or SGA infants


Retrospective case series (n=55) demonstrating a 24% incidence of sickling complications with higher leukocyte counts, anemia and general anesthesia identified as risk factors by logistic regression analysis


One year analysis of thrombocytopenia reporting a 1.6% incidence at delivery


Postal survey inquiring about the practices of pain services in the UK as relates to suspected symptoms of epidural hematoma with authors advocating for the use of a formal protocol for the management of suspected cases


Editorial letter advocating the need for standardized protocols for the management of suspected cases of epidural hematoma as discussed in the Meikle et al article


A review article stating that inherited thrombophilias have not been shown to cause placenta-mediated pregnancy complications and there are no adequately powered randomized control trials evaluating the use of thromboprophylaxis in this patient population or their effect on pregnancy outcomes


Review of thrombophilias, anticoagulation during pregnancy, complications with neuraxial techniques and the diagnosis and treatment of spinal hematomas


Review paper on the thromboembolic disease, treatment and prophylaxis in the peripartum period


A case discussion of a postpartum patient with renal failure due to thrombotic microangiopathy associated with antiphospholipid antibodies


The authors discuss the anesthetic considerations of this syndrome: low platelets, severe limb abnormalities that result in difficulty with venous access and monitoring, variable co-existing congenital malformations, and airway abnormalities

251. Katsuragi S, Sameshima H, Omine M, Ikonenou T. Pregnancy-induced hemolytic anemia with a possible immune-related mechanism. Obstetrics and gynecology 2008;111:528-9. A case report of pregnancy-induced maternal hemolytic anemia possibly related to an immunologic mechanism, as demonstrated by the increased levels of IgG on maternal red blood cells.

252. Chapman ML, Martinez-Borges AR, Mertz HL. Lepirudin for treatment of acute thrombosis during pregnancy. Obstetrics and gynecology 2008;112:432-3. A case report describing a parturient with antiphospholipid syndrome who developed a dural venous thrombosis at 36 weeks EGA after dalteparin was discontinued secondary to thrombocytopenia and who was subsequently switched to lepirudin and had an uneventful labor, delivery, and epidural placement.


255. Berkley EM, Leslie KK, Arora S, Qualls C, Dunkelberg JC. Chronic hepatitis C in pregnancy. Obstetrics and gynecology 2008;112:304-10. A retrospective study showing the incidence of cholestasis of pregnancy is increased in hepatitis C antibody-reactive parturients.


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**Hepatic**


255. Berkley EM, Leslie KK, Arora S, Qualls C, Dunkelberg JC. Chronic hepatitis C in pregnancy. Obstetrics and gynecology 2008;112:304-10. A retrospective study showing the incidence of cholestasis of pregnancy is increased in hepatitis C antibody-reactive parturients.


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**Immunologic**


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**Infectious**

Review of 7 RCTs (n=1,249) comparing acyclovir to placebo or no treatment and valacyclovir to placebo showing reduced viral shedding and recurrences at delivery, reduced need for cesarean delivery for genital herpes but an indeterminant effect of on neonatal herpes, although that rate appears to be low

263. Orton LC, Omari AA. Drugs for treating uncomplicated malaria in pregnant women. Cochrane database of systematic reviews (Online) 2008:CD004912.

Review of 10 trials (n=1,805) showing efficacy of some combination treatments, however, safety data are limited


Longitudinal study (n=8,327) describing trends in the management and outcomes of HIV infected pregnant women in the UK and Ireland from 1990-2006


Prospective cohort study of 103 HIV-positive pregnant women demonstrating an increase in toxicity with nevirapine based HAART therapy


Review article


Review of the psychosocial stressors affecting the parturient with HIV


Retrospective study of singleton births in Tanzania over 7 years (n=14,444) finding that women with untreated HIV and with unknown HIV status had higher risks of adverse pregnancy outcomes


Discussion of trivalent inactivated influenza vaccine and TdaP use during pregnancy, the diseases they prevent, and the benefit to the neonate


Review, focusing on maternal-child HIV transmission, pregnancy outcomes, anti-retrovirals and their interactions with anesthetic medications


A case report describing the resolution of hydrops secondary to congenital CMV from the administration of maternal and fetal CMV hyperimmune globulin


Case report


A case report describing the detection and management of a parturient with extrapulmonary tuberculosis involving the large intestine, para-aortic and mesenteric lymph nodes, and uterine cavity


Editorial encouraging the use of epidemiologic data to enact policy changes to reduce the prevalence of HIV


Letter to the editor advocating for routine rapid HIV testing in all parturients, instead of limiting it to high-risk patients, per the original article

Metabolic


Case series (n=15) describing the successful pregnancies of patients with glycogen storage disease type Ia (GSD-Ia), although specific GSD-Ia-related risks are present

First reported case of spinal anesthesia for Cesarean delivery in a patient with Pompe Disease (Glycogen Storage Disease Type II)

Case report discussing several important anesthetic issues relevant to the management of pregnant patients with hyperhomocysteinemia, including peripartum anticoagulation and the theoretical risk of using N2O

A case report of the successful management of pregnancy and cesarean delivery of a patient with narcolepsy and glutaric aciduria type II, an inborn error of metabolism caused by the deficiency of the electron-transport chain flavoprotein coenzyme-Q oxidoreductase

First known report emphasizing anesthetic management during labor and delivery for a patient with MELAS Syndrome, a mitochondrial disorder with widespread organ system effects

Letter reporting a case of water intoxication

Musculoskeletal
A report of an EXIT procedure performed on a patient with a rare congenital disorder under regional anesthesia

Case report of preeclampsia and morbid obesity complicated by a craniofacial abnormality, including severe macrocrania and severe airway edema

Case report of the use of ultrasound to assist in spinal anesthesia placement in a patient with severe kyposcoliosis and spinal instrumentation

Letter

Neoplastic
A report of 3 cases describing the protrusion of abnormal tissue from the anus during the second stage of labor, which were later determined to be colorectal cancer or precancerous polyps

Case series (n=2) with proposed management strategy for first trimester uterine fibroid incarceration

Case discussion of a third trimester large B-cell lymphoma of the mediastinum

Case report of 31 y/o primigravida operated on at 29.1 wks gestation due to respiratory distress with discovery of a 20kg subserosal uterine leiomyoma and 4L EBL

Case report
291. Iwahashi M, Otani N, Umesaki N. A giant placenta: the patient’s placenta was growing quickly; the fetus was not. American journal of obstetrics and gynecology 2008;199:712 e1.

Case report and accompanying MR images: placental abruption secondary to leiomyoma

Neurologic


Systematic review concluding that there is no evidence to inform the content, methods of delivery or effectiveness of preconception counseling to improve pregnancy outcomes for women with epilepsy and their offspring


A summary of the features and management of parturients (n = 102) with neurological disease reported to the UK registry of high-risk anaesthesia between 1997 and 2002.


Animal model demonstrating isoflurane-induced neuroapoptosis in fetal rats


Review article


A comprehensive review of the pathophysiology of neurologic conditions in the parturient and the anesthetic options for management


Case series (n=7) of the successful pregnancies of quadriplegic patients despite prevalent antepartum morbidity


Case report of the management of a 28-yr-old patient with longstanding congenital myasthenia syndrome who underwent an elective Cesarean delivery under spinal anesthesia


Case report of the use of spinal anesthesia for Cesarean delivery in a patient with known cerebral venous thrombosis


Case report describing a TIVA technique for central core disease


Case report


Author cautions against the use of succinylcholine in any patient with dennervation due to the risk of hyperkalemic circulatory collapse


A letter in response to Torrillo’s case report


Letter reporting case of PRES


Letter describing a posterior fossa aneurysm


Letter describing neurologic deficits due to undiagnosed brain tumor
Obesity


Meta-analysis of the impact of bariatric surgery of labor outcomes principally demonstrating a reduction in gestational diabetes and preeclampsia


Meta-analysis of 16 studies concluding that obese women have a higher rate of miscarriage


Prospective study (n=348) finding that a weight loss programs are effective in minimizing weight gain, without adversely affecting delivery or neonatal outcomes


Cohort study following up on 220 obese and non-obese women who showed that baseline body mass index, wt gain, and complications during gestation are negatively associated with physical component score (PCS) of quality of life


Retrospective cohort study (n=186,087) demonstrating that higher first trimester BMI, and a greater change in BMI during pregnancy, was associated with longer gestation and an increased risk of postdates pregnancy


Retrospective analysis (n=83,080) between 1995-2003 found that the risk of fetal macrosomia increased linearly with increasing maternal glucose levels, regardless of the presence of gestational diabetes, with women with >40 pounds weight gain having double the risk of fetal macrosomia for each level of maternal glucose stratification


Analysis from an HMO database (n=13,442) demonstrating increased resource utilization among obese parturients primarily from increased CD rate and related high risk medical conditions


Review article


Review article


Editorial accompanying Ramachenderan et al.

Educational article reviewing obesity in the US with a section on obstetrical complications associated with obesity including prolonged labor, gestational diabetes, delivery complications, and hypertension.

Review article of the physiologic changes of pregnancy that are further exacerbated in the morbidly obese parturient with a discussion of analgesic/anesthetic options in these patients

Case report describing the peripartum management of a patient with DM2, HTN, s/p gastric bypass surgery

Case report and discussion of maternal obesity in Fiji

Editorial that urges obstetric anesthesiologists to take an active role in fighting obesity and increasing safety for obese parturients

Letter from editor cautioning authors against cesarean delivery under local infiltration

A letter that reviews obstetric care, specifically intrapartum care, of the morbidly obese parturient

Letter questioning Jani’s and Kathigamanathan’s recommendation for all parturients with BMI > 30 to be seen in an anesthetic antenatal clinic; Authors’ reply

Letter questioning the calculations used for BMI determination in Clinkscales study; Authors’ reply by Polley

330. Onwude JL. Weight gain restriction for obese pregnant women: a case-control intervention study. Bjog 2008;115:796; author reply
Letter to the editor describing a serious methodologic flaw in the Claesson paper

Orthopedic

Case report of a 26 year-old term patient with gerodermia osteodysplastica (aka Walt Disney dwarfism, a rare autosomal recessive connective tissue disorder) who underwent a successful C/D

Pain

RCT (n=115) finding no difference between acupuncture and placebo in the treatment of pelvic girdle pain in parturients.

Psychiatric

Prospective cohort study (n=9,244) demonstrating that maternal post-partum depression is associated with a slightly increased odds of developmental delay in children

Retrospective study (n=118,935) reporting a prevalence of 8% of pregnant women were prescribed antidepressants

After screening 1,584 women using Edinburgh Postnatal Depression Scale, the authors believe screening for depression in the 3rd trimester resulted in a comparable prevalence rate of depressive risk identification when compared with the postpartum time frame and that women were evaluated before and after delivery may have been missed if screening had not been performed twice.

A bulletin summarizing the outcome data associated with the use of psychotropic medications during pregnancy

Literature review of studies investigating effects of antidepressants on maternal, fetal, and neonatal health, recommending that randomized, placebo-controlled trials of antidepressant medications during pregnancy are ethically justified

Review article

Review article

Case report and discussion of the pharmacology of lithium, and its effects on both the mother and the fetus, and review of current guidelines for lithium treatment during pregnancy

Case report

Renal

Review article

Respiratory

An ACOG practice bulletin reviewing the effects of pregnancy and labor on an asthmatic and management of the pregnant asthmatic patient

Case report of the management of a parturient with acute IPH for vaginal delivery with continuous spinal analgesia and BiPAP

A case report of the diagnosis of a left-sided pulmonary synovial sarcoma in a parturient who presented with a left-sided pneumothorax, successfully delivered and subsequently underwent left pneumonectomy and chemotherapy, but ultimately died 13 months after resection

A letter

Substance Abuse

Review of 3 trials (n=96) showing no significant difference between the drugs compared both for mother and for child outcomes with the sample size being too small to make firm conclusions about the superiority of one treatment over another
Lui S, Terplan M, Smith EJ. Psychosocial interventions for women enrolled in alcohol treatment during pregnancy. Cochrane Database Syst Rev 2008:CD006753. The review question remains unanswered as there were no randomized control trials found relevant to the topic.

Flenady V, Wilson T. Support for mothers, fathers and families after perinatal death. Cochrane database of systematic reviews (Online) 2008:CD000452. There is currently insufficient information available from randomized trials to indicate whether there is or is not a benefit from interventions which aim to provide psychological support or counseling for mothers, fathers or families after perinatal death.

Oncken C, et al. “Nicotine gum for pregnant smokers: a randomized controlled trial.” Obstet Gynecol 112:859-67. RCT (n=194) showing that use of nicotine gum in pregnant smokers increased birth weight by 10% and increased gestational age at delivery by almost 1 week, but did not affect quitting rates.

Cox S, Posner SF, Kourtis AP, Jamieson DJ. Hospitalizations with amphetamine abuse among pregnant women. Obstetrics and gynecology 2008;111:341-7. A multicentered, 6-year retrospective analysis showing a decrease in hospitalization for cocaine abuse, but an increase in hospitalization for amphetamine abuse in parturients and a comparison of cocaine abusers versus amphetamine abusers showed a higher incidence of premature delivery and poor fetal growth in the cocaine group, but a higher incidence of maternal cardiovascular disorders and hypertension in the amphetamine group.


Rigotti NA, Park ER, Chang Y, Regan S. Smoking cessation medication use among pregnant and postpartum smokers. Obstetrics and gynecology 2008;111:348-55. An observational study showing that pregnant smokers are more reluctant to use medications for smoking cessation.

Aagaard-Tillery KM, Porter TF, Lane RH, Varner MW, Lacoursiere DY. In utero tobacco exposure is associated with modified effects of maternal factors on fetal growth. American journal of obstetrics and gynecology 2008;198:66 e1-6. Population based retrospective study (37,076 smokers in 424,912 term gestation pregnancies) showing that tobacco is the main associative factor with decreased mean birth weight across all BMIs and with DM and HTN.


Coyne KL, de Costa CM, Heazlewood RJ, Newman HC. Pregnancy characteristics of women giving birth to children with fetal alcohol syndrome in Far North Queensland. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:240-7. 12-year retrospective case control study (n=59) identifying an association between older age, higher parity, tobacco use and less frequent antenatal visits in mothers of children with FAS compared with controls.

Hotham E, Ali R, White J, Robinson J. Pregnancy-related changes in tobacco, alcohol and cannabis use reported by antenatal patients at two public hospitals in South Australia. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:248-54. Anonymous survey (n=748) reporting the prevalence of the use of tobacco (18.5%), alcohol (11.8%) and cannabis (4.5%) in pregnancy.

Bedford K, Wallace C, Carroll T, Rissel C. Pregnant smokers are receptive to smoking cessation advice and use of nicotine replacement therapy. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:424-6. Survey (n=64) demonstrating a 64% likelihood of using nicotine replacement therapy.
Editorial and review of the 2007 Australian National Health and Medical Research Council guidelines recommending complete abstinence from alcohol during pregnancy

Review of the effectiveness and safety profile of current smoking cessation approaches in pregnancy including the risks and benefits of nicotine replacement therapy and bupropion

Review of alcohol consumption in pregnancy

Review of the management of chemical dependence in pregnancy

Letter questions conclusions in Weng study

Letter supports conclusions in Weng study

Letter questions conclusions in Weng study; Includes author reply

Letter questions conclusions in Weng study

Trauma
Retrospective cohort study (n=693) of women with a fall in pregnancy demonstrating that falls are associated with a 4-fold increase risk of PTL, abruption, fetal distress, and hypoxia

Retrospective audit of 12 pregnant patients who were victims of terror-related trauma

Review of the physiologic considerations in the parturient trauma victim and a presentation of a protocol for the evaluation and management of the injured parturient

Chart review of snakebites in pregnancy with complications possibly related to severity of the envenomation

Vascular
Cohort study of 111 women with hereditary hemorrhagic telangiectasia finding that most pregnancies proceed normally, however due to the risk of AVM bleed, stroke, or death, these pregnancies should be considered high risk

Case series/literature review

The authors add internal carotid artery dissection to the differential diagnosis of postpartum headache, discussing presentation, treatment and potential complications.
Case report from an anesthetic perspective, describing the management of infective endocarditis complicated by intracranial mycotic aneurysm and massive intracranial hemorrhage

Case report of successful management of a parturient with Wegener’s granulomatosis, preeclampsia and subglottic stenosis

Case report of a successful pregnancy in setting of vasculopathy

The Pregnant Patient, Fetus and Newborn

Physiologic Alterations in Women/Pregnancy

Prospective study (n=19,282) finding that parturients with psychological stress in pregnancy have an increased risk of IUFD

Prospective cohort study (n=843) demonstrating that maternal temperature slowly increases in labor, yet stays within the normal range, and does not follow a circadian pattern

Prospective study (n = 775) measured C-reactive protein levels as a marker for inflammation in healthy pregnant women and demonstrated that African-American women had higher levels than Caucasians

Prospective observational study (n=155) describing weekly cervicovaginal fluid sampling from 36 weeks gestation until labor with measured interleukin-1 receptor levels decreasing in the time leading to labor and/or spontaneous rupture of membranes

Gravid human myometrium was obtained from pts undergoing CD (n=42) confirming atrial natriuretic peptide (ANP secreted by myometrial cells) has a dose-dependent effect on uterine relaxation and the concentration of ANP may vary with gestational age and modulators of uterine contractility

Prospective clinical trial exposing human myometrial tissue to varying concentrations of progesterone or 17-alpha-hydroxyprogesterone caproate (synthetic progesterone metabolite shown to tocolytic properties) to determine which inhibit uterine contractions with only progesterone, at concentrations equivalent to those present in the placenta and uterus, inhibiting spontaneous myometrial contractility in vitro

Ovalbumin significantly increased contractility of uterine and cervical strips from sensitized versus non-sensitized guinea pigs, indicating that Type I hypersensitivity reactions may be important in mediating uterine contractility
This study demonstrated that epinephrine, in concentrations commonly found in the plasma of laboring women, vasodilates uterine resistance vessels and attenuates norepinephrine-induced vasoconstriction.

Newly described mechanism of fetal immune tolerance to maternal antigens through the transplacental passage of maternal suppressive T cells which reside in fetal lymph nodes and remain active until early adulthood.

Leslie M. Immunology. Fetal immune system hushes attacks on maternal cells. Science;322:1450-1.
Editorial accompanying the Mold paper on maternal alloantigens.

Prospective study (n=24) finding that the Modification of Diet in Renal Disease (MDRD) formula substantially underestimates GFR during pregnancy.

Longitudinal study of 52 normal pregnancies to establish reference intervals for 25 laboratory tests in pregnancy.

A peripartum analysis of serum stress hormone levels (n=10).

Based on 5 cases of maternal hypercalcemia and unexplained polyhydramnion, the authors suggest fetuses exposed to a hypercalcemic environment may have polyuria develop similar to adult hypercalcemic polyuria, leading to fetal polyhydramnion.

Computer simulation study showing decreased tolerance to apnea in pregnancy.

Review article on the role of oxytocin on mammalian social behavior.

Letter to the editor questioning reference values used in parturients in Larsson article.

Larsson A. Author response to: Reference values for clinical chemistry tests during normal pregnancy. Bjog 2008;115:1580-1.
Author response to editorial.

Letter to the editor in response to Wisborg study citing methodologic flaws in the study.

Fetus
Prenatal Screening

Review of 8 trials (n=27,024) showing that there was no difference in antenatal, obstetric and neonatal intervention or morbidity in screened versus control groups. Routine late pregnancy ultrasound was not associated with improvements in overall perinatal mortality. Placental grading as an adjunct to third trimester examination scan was associated with a significant reduction in the stillbirth rate in the one trial that assessed it. There is little information on long-term substantive outcomes such as neurodevelopment. There is a lack of data on maternal psychological effects.

Review of 4 trials (n=3,125). There is no evidence that one method is superior to the other in the prevention of poor peripartum outcomes. When the amniotic fluid index was used, significantly more cases of oligohydramnios were diagnosed (RR 2.33), and more women had inductions of labor (RR 2.1) and caesarean delivery for fetal distress (RR 1.4).


402. Philipson EH, Callahan M, Jelovsek JE. First-trimester and second-trimester screening at a community hospital: experience from the first year of implementation. Obstetrics and gynecology 2008;112:218-22. A retrospective review of the use of an aneuploidy screening program (nuchal translucency measurement and serum biochemical testing during the first and second trimesters) resulting in the reduction of the number of invasive procedures for diagnosis while maintaining an acceptable detection rate

403. Le Meaux JP, Tsatsaris V, Schmitz T, Fulla Y, Launay O, Goffinet F, Azria E. Maternal biochemical serum screening for down syndrome in pregnancy with human immunodeficiency virus infection. Obstetrics and gynecology 2008;112:223-30. A case-controlled study showing that the presence of HIV, regardless of the use of antiretroviral medications, does not affect the false-positive rate of double-marker second-trimester Down syndrome serum screening

404. van Driel LM, de Jonge R, Helbing WA, van Zelst BD, Ottenkamp J, Steegers EA, Steegers-Theunissen RP. Maternal global methylation status and risk of congenital heart diseases. Obstetrics and gynecology 2008;112:277-83. A case-controlled study demonstrating that maternal hyperhomocysteinemia, and not hypomethylation, is a risk factor for having a child with a congenital heart disease, however, hypomethylation is associated with an increased risk of congenital heart disease and Down syndrome in offspring

405. Scioscia M, Vimercati A, Ceci O, Vicino M, Selvaggi LE. Estimation of birth weight by two-dimensional ultrasonography: a critical appraisal of its accuracy. Obstetrics and gynecology 2008;111:57-65. A cross-sectional study showing that 20 out of 29 commonly used 2D-ultrasonographic formulas for the estimation of birth weight are relatively accurate up to 3,500g, with those formulas based on head-abdomen-femur measurements having the lowest absolute percentage error

406. Spampinato MV, Hardin V, Davis M, Chang E, Rumboldt Z. Thrombosed fetal dural sinus malformation diagnosed with magnetic resonance imaging. Obstetrics and gynecology 2008;111:569-72. A case report of the detection of complete thrombosis of a dural sinus malformation in a second-trimester fetus with subsequent MR-imaging in the third trimester revealing decreased thrombus size and no parenchymal injury, ultimately resulting in the delivery of a neurologically intact infant with normal somatic and cognitive development at 16 months of age

Fetal Monitoring

407. Lalor JG, Fawole B, Alfirevic Z, Devane D. Biophysical profile for fetal assessment in high risk pregnancies. Cochrane Database Syst Rev 2008:CD000038. Meta-analysis of 5 RCTs (n=2,974) shows that evidence does not support the use of BPP as a test of fetal wellbeing in high risk pregnancies. No significant differences were found between the groups in perinatal deaths (RR 1.33) or in Apgar score less than seven at five minutes (RR 1.27). Combined data from the two high-quality trials suggest an increased risk of Caesarean delivery in the BPP group (RR 1.60)


413. Chauhan SP, Klauser CK, Woodring TC, Sanderson M, Magann EF, Morrison JC. Intrapartum nonreassuring fetal heart rate tracing and prediction of adverse outcomes: interobserver variability. American journal of obstetrics and gynecology 2008;199:e1-5. 5 clinicians reviewed 100 FHR tracings and there was poor classification agreement among clinicians who classified FHR tracings with periodic decelerations as reassuring vs. non-reassuring nor could they identify which tracings were associated with emergency Cesarean delivery or low umbilical artery pH.


416. Reichmann JP. Home uterine activity monitoring: the role of medical evidence. Obstetrics and gynecology 2008;112:325-7. An editorial discouraging the use of home uterine activity monitors until a well-designed, randomized controlled trial is performed showing use of this device results in improvements in neonatal outcomes for preterm labor.


419. Poddar A. Limitations of ST analysis in clinical practice: three cases of intrapartum metabolic acidosis. Bjog 2008;115:670; author reply -1. Letter in response to the Westerhuis study highlighting that ST analysis guidelines were not followed in the reported cases.

420. Amer-Wahlin I, Dekker S. Fetal monitoring--a risky business for the unborn and for clinicians. Bjog 2008;115:393-7; discussion 1081-2. Letter to the editor in response to Westerhuis study emphasizing that clinicians should continue to monitor cardiotocography, even if ST analysis is available.


Fetal Surgery

Newborn Breast Feeding

Letter challenging the conclusions of a 2006 Lancet case report that a newborn died of morphine overdose after being breastfed by a mother taking oral codeine suggesting that infertility, not artificial fertilization per se, may be the risk factor that increases perinatal morbidity.

Letter to the editor stating the author's disappointment that breastfeeding education was overlooked as an important issue in improving newborn survival

Cerebral Palsy

A systematic review of the literature to examine the role of intrapartum hypoxia-ischemia in causing hypoxic-ischemic encephalopathy demonstrated that the incidence of uterine artery pH < 7.0 is 3.7/1000 live term births, and association with neurologic morbidity or mortality = 23.1%; the incidence of hypoxic-ischemic encephalopathy is 2.5/1000; the proportion of cerebral palsy associated with intrapartum hypoxia-ischemia is 14.5%

427. Freeman RK. Medical and legal implications for necessary requirements to diagnose damaging hypoxic-ischemic encephalopathy leading to later cerebral palsy. American journal of obstetrics and gynecology 2008;199:585-6.
Editorial referring to Graham et al. review of intra-partum factors leading to neonatal hypoxic-ischemic encephalopathy and focuses on medico-legal implications

A multicenter, double-blinded RCT of intravenous magnesium sulfate in women at risk for preterm delivery between 24 and 31 weeks EGA (n=2,241) demonstrating a significant reduction in moderate to severe cerebral palsy (1.9% vs. 3.5%).

Pilot study randomizing neonates suspected of having birth asphyxia to standard care or a low-cost whole body cooling with water bottles and evaluating the feasibility of this technique and neonatal neurologic outcomes with results demonstrating successful core temperature cooling and improved neurological outcomes in cooled neonates

Animal model in which intraventricular endotoxin administration led to brain injuries resembling those found in cerebral palsy with a link between prenatal infection and cerebral palsy suggested

Observational study (n=472) finding that the most common cause of obstetric malpractice cases were due to non-compliance with guidelines for fetal surveillance

Case-control study (n=334 cases, 668 controls) demonstrating a 5 to7-fold increased risk of cerebral palsy in term SGA infants

Case-controlled study demonstrating that placental infarction, nucal cord, and SGA are risk factors for the development of spastic cerebral palsy

Review of causative factors in CP including placental abruption, cord prolapse, uterine rupture, prematurity, intrauterine exposure to infection or maternal fever in labor, ischemic stroke, congenital malformations, atypical intrauterine growth (restricted or excessive for gestational age), and complications of multiple gestations

Since the late 1990s, and especially since the year 2000, the rates of neonatal morbidity have decreased with evidence of a decrease in the rates of cerebral palsy.

Review focusing on antenatal antecedents as etiologies of cerebral palsy and the impact of obstetric care on the prevention of CP

Review of the diagnosis, treatment and prevention of cerebral palsy

The incidence, risk factors, and etiology of cerebral palsy (CP) are reviewed including current methods for diagnosing brain injury and hypothermic neuroprotection

Letter to the editor in response to Westerhuis study calling for research to determine if infection and inflammation can be detected by computerized ST segment analysis

Low Birth Weight

Prospective cohort study (n=4,446) of neonates born between 22 and 25 weeks EGA challenging the widespread use of gestational age thresholds for administration of intensive care reporting a lower risk for death or neurodevelopmental impairment in singletons, females, higher birth weights infants and with exposure to antenatal steroids

A 20-year retrospective study demonstrating that a small for gestational age infant increases the likelihood fourfold of an SGA infant in the second pregnancy

Retrospective cohort study (n=28,776) finding that intrauterine growth restriction may be present as early as the first trimester

Review article on outcomes associated with neonates weighing less than 1500 grams

Macrosomia

Retrospective cohort study concluding that birth weight > 4500 g, and especially > 5000 g, is associated with increased risks of perinatal and infant mortality and morbidity

Meconium Aspiration

Author’s reply to Xu letter stating that an incorrect version of the manuscript was published, and that the research confirmed that amnioinfusion appeared to reduce the risk of meconium aspiration syndrome
**Morbidity**


Relative insulin resistance was seen in prenatally stressed women (n= 36 mothers who experienced major stressful life events during their pregnancy, n=22 control) in the first study to provide evidence for a link between prenatal psychosocial stress exposure and alterations in glucose-insulin metabolic function.


Retrospective chart review of 914 intrauterine transfusions in 314 pregnancies showing that thrombocytopenia is common in hydropic anemic fetuses, and severe thrombocytopenia is associated with a poor prognosis.


Review paper defining the challenges in monitoring maternal morbidity in Australia.


Author clarification to points raised in editorial.


Author response to editorial acknowledging the limitations of their data set and defending the conclusions made in their paper.

**Mortality**


Cohort study (n=7,642) demonstrating that biparietal diameter growth <10th percentile, but not decreased crown-rump length, between the first and second trimester is a strong predictor of perinatal death before 34 weeks gestation.


Prospective cohort study (n=987) demonstrating an improvement in survival for neonates born at 24 and 25 weeks EGA between 2000-5 (47%) compared with 1994-9 (36%) but no improvement in neonates born earlier in the same time period.


Editorial accompanying Field et al.


RCT of a community-based neonatal care intervention that decreased neonatal mortality in groups of villages in India, highlighting the importance of sociocultural context in implementing sustainable delivery strategies.


Retrospective study (N=1,815,811) concluding that infants born beyond 41.0 wks of gestation experienced greater neonatal mortality relative to infants born between 38.0 and 40.6 wks gestation.


Retrospective cohort study (n=34,424) controlling for obstetric history, demographic factors, and labor characteristics showing no differences in neonatal morbidity or mortality by delivery time of day.


A population based cross sectional study of home births finding that perinatal mortality rates have not changed, and patients who require transfer to a hospital have higher perinatal mortality rates.


Case-control study (n=364 cases, 33,715 controls) demonstrating that following an IUFD there is an increased risk for adverse maternal and fetal outcomes in the subsequent pregnancy.
Retrospective study (n=169) showing risk of neonatal death was not associated with any particular policy of mode of delivery (planned VD or CD) in preterm singleton breech deliveries from 26.0 - 29.6 wks of gestation

Retrospective study found that in twins <34 weeks of gestation, there is a 40% decreased risk of death when the second twin was delivered via cesarean section compared to vaginal delivery

Cohort study (n=53) demonstrating that neonatal morbidity and mortality are similar in IUGR of the same clinical severity, regardless of whether or not they could be defined appropriate or small for gestational age

Review

Case report of a maternal death diagnosed on post mortem examination as latex allergy

Summary of mortality worldwide in children age less than five from the years 1990-2007 and the progress made toward achieving the Millennium Developmental Goals of reducing child mortality by 2015

Author's commentary on early neonatal mortality related to birth asphyxia and early sepsis and how early interventions in the community are vital to decreasing mortality

Editorial letter regarding Walsh's article about decreasing trend in the rate of intrapartum fetal deaths

Editorial comment on the variety of community based interventions that may reduce newborn mortality

Author response to editorial

Author response to statistical criticisms in letter by Smith and Wood

Letter to the editor in regards to Wood study citing a statistical flaw in their data analysis

Pharmacology/Teratogenesis

Retrospective study (n=88,142) showing acetaminophen (taken during the first trimester) is not associated with an increased prevalence of fetal congenital abnormalities

Retrospective cohort study concluding that despite evidence of fetal complications associated with ACE inhibitor use during pregnancy, the number of pregnant women with ACE inhibitor exposures increased steadily between 1986-2003, particularly exposures during the second and third trimesters and in women 35 yrs or older

Case-control study (n=200, 1200 controls) finding no association between antidepressant exposure and adverse fetal or neonatal outcomes
Qualitative study using structured interviews and focus groups of Gambian women finding their hesitancy to disclose their pregnancies and therefore take drugs that would otherwise be contraindicated

Review of common clinical problems in counseling patients about potential teratogenic risks in pregnancy and principles of teratogenicity

Letter to the editors with concern about the labeling of paroxetine as teratogenic

**Respiratory Distress**

RCT (n=610) of neonates born at 25 to 28 weeks EGA showing no significant reduction in death or bronchopulmonary dysplasia and a higher rate of pneumothorax with CPAP compared with intubation and ventilation

A 1-year retrospective chart review showing increased risk of NICU admission and respiratory distress associated with male gender and elective cesarean delivery before 38 4/7 weeks estimated gestational age

**Sepsis**

Review of current diagnosis, treatment and prevention of neonatal sepsis caused by GBS transmission, including recent diagnostic tests with PCR offering promise for more rapid and accurate detection

Editorial letter expressing concern over the methodology of Impey’s paper examining the relationship between intrapartum fever, neonatal acidosis, and neonatal encephalopathy

Letter concerning Larsen review; Author reply

**Umbilical Cord Issues**

Analysis of 11 trials (n=2,989) showing no significant differences between early and late cord clamping for postpartum haemorrhage but an increase in infants needing phototherapy in the late group

Prospective, observational study (n=70) reporting persistent cord pulsations and delayed cord clamping at birth result in different cord blood acid-base values

Prospective observational study (n=19) demonstrating a direct correlation between gestational age and arterial and venous umbilical cord lactate concentrations

**Placental Issues**

Anorlu RI, Maholwana B, Hofmeyr GJ. Methods of delivering the placenta at caesarean section. *Cochrane database of systematic reviews* (Online) 2008:CD004737.
Review of 15 studies (n=4,694) showing delivery of the placenta with cord traction at caesarean delivery is associated with less endometritis and blood loss and shorter hospital stay compared with manual removal
Prospective cohort study (n=2,687) demonstrating a five-fold increase in serious respiratory complications in neonates born by elective Cesarean at 37 weeks compared with those intended for vaginal delivery.

Prospective observational cohort (n=109) concluding that maternal and fetal genetic variation in TLR4 is strongly associated with chorionic plate inflammation.

Single-blinded prospective study (n=90 with 17 controls) concluding second trimester loss is strongly associated with placental inflammation.

Case-control study (n=181, 261 controls) finding no association between levels of CRP and placental abruption.

Animal model showing maternal growth hormone partially IUGR from placental insufficiency in sheep, however, it was associated with fetal hydroenencephalic lesions.

Retrospective analysis (n=81) of choice of anesthetic for Cesarean delivery for placenta previa in Nigeria.

Case series (n=13) of patients with placenta accreta/percreta who underwent perioperative embolization.

Case series (n=3) of the usefulness of ultrasonography to assess placenta accreta.

Case series (n=2) of placenta percreta, successful embolization, methotrexate administration, delayed hysterectomy and ultimately no significant hemorrhagic complications or extensive bladder reconstruction.

Case series (n=2) with placenta percreta, the use of post-partum methotrexate and need for reoperation, delayed hysterectomy, and significant blood product administration.

Editorial stating that thorough preoperative preparation is essential in patients with suspected placenta accreta, percreta, or increta.

A discussion of a challenging case that emphasizes multi-disciplinary cooperation.

Obstetric Management Issues

Breech

Meta-analysis of 84 studies showing that complications from versions occur in 6.1%, with serious complications in 0.24% (unrelated to version outcome), and emergency Cesarean deliveries in 0.35%.

Systematic review regarding clinical prognosticators of external cephalic version success demonstrating increased success associated with multiparity, non-engagement of breech, uterine relaxation, palpable fetal head, and maternal weight < 65 kg


501. Vendittielli F, Riviere O, Crenn-Hebert C, Rozan MA, Maria B, Jacquetin B. Is a breech presentation at term more frequent in women with a history of cesarean delivery? American journal of obstetrics and gynecology 2008;198:521 e1-6. Retrospective cohort study (n = 84,688) concluding that women with previous cesarean deliveries have a twice the risk of breech presentation at term compared to that of women with previous vaginal deliveries


Cerclage Placement

503. Odibo AO. Cervical stitch (cerclage) for preventing pregnancy loss: individual patient data meta-analysis. Bjog 2008;115:798; author reply 89-90. Letter to the editor critiquing the statistical methodology used in the Jorgensen paper

Cesarean Delivery

504. Hofmeyr GJ, Mathai M, Shah A, Novikova N. Techniques for caesarean section. Cochrane Database Syst Rev 2008:CD004662. Systematic review showing the ‘Joel-Cohen based’ Cesarean technique, compared with Pfannenstiel technique was associated with shorter time from skin incision to delivery, less blood loss, shorter operating time, reduced time to oral intake, less fever, shorter duration of postoperative pain and fewer analgesic injections

505. Dodd JM, Anderson ER, Gates S. Surgical techniques for uterine incision and uterine closure at the time of caesarean section. Cochrane Database Syst Rev 2008:CD004732. Review of 15 trials (n=3,972) determining there is little information available to determine what is the most appropriate surgical technique

506. Orji EO, Olaleye AO, Loto OM, Ogunniyi SO. A randomised controlled trial of uterine exteriorisation and non-exteriorisation at caesarean section. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:570-4. RCT (n=210) demonstrating a reduction in blood loss, analgesic doses administered and length of hospital stay with uterine exteriorization


508. Wikkund I, Edman G, Ryding EL, Andolf E. Expectation and experiences of childbirth in primiparae with caesarean section. Bjog 2008;115:324-31. Prospective cohort study (n=496) finding that women who requested cesarean deliveries had negative expectations of vaginal deliveries and women who received an emergency cesarean delivery had more negative childbirth experiences

509. Doherty DA, Magann EF, Chauhan SP, O'Boyle AL, Busch JM, Morrison JC. Factors affecting caesarean operative time and the effect of operative time on pregnancy outcomes. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:286-91. Prospective observational study (n=386) reporting the association of age, BMI, operative indication and other clinical factors on Cesarean delivery duration

510. Pearce C, Torres C, Stallings S, Adair D, Kipikasa J, Briery C, Fody E. Elective appendectomy at the time of cesarean delivery: a randomized controlled trial. American journal of obstetrics and gynecology 2008;199:491 e1-5. Prospective observational trial (n=93) demonstrating that performing an elective appendectomy at the time of Cesarean delivery did not increase morbidity and pathological examination revealed 2 cases of acute appendicitis

Prospective cohort study (n=107) demonstrating an association between depressed Cesarean delivery scar and subsequent adhesions

8 year retrospective review (n= 52,423) reporting increases of 1.6% and 0.8% per year for rates of ante- and intrapartum indications for Cesarean delivery

Retrospective cohort study of 40 hospitals (n=28,863) showing variations in nulliparous term singleton vertex CD rates with lower rates associated with government-paid births and high level nursery care and increased rates with ob/gyn residency programs

4-year retrospective analysis (n=4,964) demonstrating a stable Cesarean delivery rate of approximately 36% at a teaching hospital

Retrospective comparison (n=627) reporting Caesarean delivery in the second stage of labor is associated with a higher risk of maternal morbidity

A cross-sectional survey demonstrating that many women underestimate their final parity at the time of first pregnancy, and this may impact the decision of whether or not to offer cesarean delivery on maternal request

Cross-sectional survey of patients and clinicians finding that pregnant women were willing to accept higher risks of potential complications with vaginal deliveries than clinicians involved in their care

Retrospective analysis (n=371,468) demonstrating that predictive models of Cesarean delivery that incorporate race and ethnicity have equal discrimination power as those models without these parameters

Multivariable logistic regression models constructed to assess factors associated with CD showing wide variability by state not explained by sociodemographic patterns and an overall increase in breech CD from 83.8 to 85.1% from 1998 to 2002

Postal survey (n=78) demonstrating that women were primarily motivated by concerns for their babies in seeking elective Cesarean delivery

A letter to the editor questioning the methodological approach of a study which evaluated, by ultrasound, the uterine healing process in one-layer versus two-layer fascial closure after cesarean delivery
Induction/Augmentation of Labor

Systematic review showing that amniotomy by itself does not shorten the length of labor, and that routine amniotomy may increase the risk of cesarean delivery and non-reassuring fetal heart tracings

Meta-analysis demonstrating that sublingual administration of misoprostol is as effective as vaginal administration; however, further safety investigations are needed before instituting this practice

RCT (n=758) finding that low-dose misoprostol, when used for the induction of labor, did not increase the risk of cesarean delivery or adverse maternal outcomes

RCT (n= 626) demonstrating that low-dose misoprostol is equivalent to dinoprostone for induction of labor with a similar fetal and maternal safety profile

RCT (n=588) demonstrating that induction of labor using a transcervical balloon is safe and superior to other induction methods

RCT (n=412) found that early delivery of oxytocin in nulliparous women shortens the duration of labor, but does not change the instrumental or operative delivery rates

RCT (n=364) showing no difference between acupuncture and sham acupuncture in decreasing the need for, or duration of, post term labor induction

RCT demonstrating that in misoprostol labor induction for an unfavorable cervix, oral vs. vaginal administration is associated with a higher rate of vaginal delivery within 12 hours and a lower rate of uterine hyperstimulation

Retrospective cohort (n=969) demonstrating a shorter induction to delivery time (17.8 vs. 21.5 hrs) in patients receiving dinoprostone gel compared with pessary

Retrospective study (n=56) showing that oxytocin-induced hyperstimulation is associated with decreased fetal saturation and heart rate and is more pronounced with increased contraction frequency

A review of available clinical and pharmacologic data suggesting that specific, evidence-based guidelines (e.g. decreasing dose) for the intrapartum administration of oxytocin may reduce the likelihood of patient harm

Description of a standardized protocol for oxytocin labor induction to improve patient safety, develop uniformity, maximize benefits, and minimize side effects

**Infection**


Systematic review of 30 RCTs showing that, compared with pharmacologic agents alone, maternal and neonatal infectious morbidity is increased when mechanical agents are used for cervical ripening


Double-blinded, randomized study (n=424) demonstrating the use of prophylactic intrapartum cefoxitin in HIV-infected women reduces the risk of postpartum endometritis


A 3-year prospective observational trial showing that genital tract colonization with MRSA occurs in 3.5% of pregnant women, is associated with GBS colonization, but does not predispose with early-onset MRSA infections in neonates


A cohort study (n=10,966) demonstrating a decrease in the incidence of postcesarean endometritis with the addition of azithromycin to standard cephalosporin prophylaxis during the post-partum period


Retrospective cohort study (n=3,841) in women with PROM beyond 37 wks EGA concluding that the risks of chorioamnionitis and endomyometritis become significantly increased at 12 hours and 16 hours post PROM, respectively


Retrospective study (n=1,316) reporting a reduction in the composite rate of surgical site infections (2.5% vs. 6.4%) after the institution of the policy to administer prophylactic antibiotics prior to, as opposed to following, umbilical cord clamping


Retrospective analysis (n=884) concluding that labor predisposes to microbial invasion of the amniotic cavity (MIAC), higher median amniotic fluid WBC count, and histologic chorioamnionitis


Case-control study (n=717, 609 controls) finding that fetal exposure to herpes virus or CMV may be associated with maternal PIH and preterm delivery


Cross-sectional study (n=480) showing the amniotic fluid concentration of immunoreactive total Hb is associated with advancing gestational age, spontaneous labor and intraamniotic infection/inflammation


A retrospective cohort study demonstrating only 16% of parturients received appropriate intrapartum antibiotic administration for group-B streptococci prophylaxis

A retrospective cohort study demonstrating that GBS colonization during pregnancy results in a 12-fold increased risk of recurrence in the next pregnancy

547. de Vries BS, Peek MJ. Exploring the mechanisms of intrapartum transmission of HIV. Does elective caesarean section hold the key? Bjog 2008;115:677-80.
Review article summarizing the current knowledge about vertical transmission of HIV

Review article describing primary maternal CMV infection

Review of the literature and recommendation based on multiple controlled studies supporting single-daily dosing of gentamicin for many common obstetric infections

4 cases of peripartum clostridium difficile infection urging clinicians to consider the diagnosis in severe diarrhea even in the absence of traditional risk factors

A case report of necrotizing cervical and uterine abscess formation in the postpartum period due to Group A streptococci, requiring a hysterectomy

Authors concede that routine endocarditis prophylaxis is not recommended for genitourinary procedures, but defend that their choice of preoperative antibiotics for endometritis as within ACOG guidelines

Commentary questioning the updated NICE guidelines which recommend that no parturient receive antibiotics for endocarditis prophylaxis

Letter supporting Onderdonk’s work; Onderdonk reply

Instrumental Delivery

555. Suwannachat B, Lumbiganon P, Laopaiboon M. Rapid versus stepwise negative pressure application for vacuum extraction assisted vaginal delivery. Cochrane database of systematic reviews (Online) 2008:CD006636.
Systematic review (n=94) showing that rapid negative pressure application for vacuum assisted vaginal birth reduces the procedure duration with no evidence of differences in maternal and neonatal outcomes

556. Majoko F, Gardener G. Trial of instrumental delivery in theatre versus immediate caesarean section for anticipated difficult assisted births. Cochrane database of systematic reviews (Online) 2008:CD005545.
Systematic review reporting silence in the literature on this controversy

Intrapartum Care

Multicentered RCT (n=5,002) demonstrating higher patient satisfaction and a modest improvement in spontaneous vaginal delivery (64.0%) vs. control (61.3%) in patients that received structured approach to labour assessment

RCT (n=4,503) at 14 medical centers showing no reduction in the use of oxytocin or medical interventions, but earlier hospital discharge at institutions where midwives were taught to use an algorithm to assist in the diagnosis of active labour in nulliparas compared with the standard protocol


RCT (n=209) demonstrating a longer second stage of labor (105 +/- 72 vs. 75 +/- 52 min) and increased PCEA local anesthetic use (73 +/- 25 mL vs. 63 +/- 26 mL) in patients who received continuous vs. intermittent bladder catheterization during labor with similar rates of UTI (30%) in both groups.


Prospective evaluation of peripartum bacteriuria (n=49) identifying associated risk factors including duration of epidural analgesia


Retrospective case series describing the management of post-Cesarean sepsis


Survey finding that local hospitals are not practicing evidence-based obstetric care


Review article concluding that evidence supports hospital births, delayed admission, doula support, training birth assistants in developing countries, and upright position in the second stage

Labor Outcomes


Retrospective cohort study (n=1,014) showing that women with active phase arrest of labor who went on to cesarean delivery had a higher risk of chorioamnionitis, endomyometritis, and postpartum hemorrhage compared to those women in active phase arrest who delivered vaginally, whereas those who delivered vaginally had a higher risk of chorioamnionitis and shoulder dystocia compared to women without active phase arrest who delivered vaginally


Retrospective study of 868 Asian-white, 3,226 Asian, and 5,575 white couples showing that compared with white couples, Asian-white couples (aOR 2.4-2.6) and Asian couples (aOR 4.7) had an increased incidence of GDM and Asian-white couples had larger babies, but only Asian-mother/white-father couples had an increased rate of CD (aOR 1.3-2.0)

Malpresentation


Population-based case-control study (n=26,208) concluding that birth weight of ≥3500 g, vacuum delivery, and severe shoulder dystocia were independent risk factors for shoulder dystocia recurrence


A retrospective analysis of images from an ultrasound trial demonstrating that nulliparity, maternal smoking, low volume of amniotic fluid, and fundal position of the placenta increase the risk of non-vertex position at delivery

Multiple Gestation


Retrospective review (n=1,000) of multifetal pregnancy reduction showing loss rates remaining stable at 4.7% over 7 years with the lowest loss rate occurring in patients reducing from twins to a singleton (2.1%) and singleton reductions associated with higher birth weights and lower rates of preterm deliveries

Prospective observational study (n=266) evaluating outcomes associated with anesthetic type (GA with volatile anesthetic, GA with propofol or local anesthetic) reporting increased intramniotic bleeding with GA


Prospective cohort (n=202) showing that 73% of monochorionic diamniotic twin pregnancies classified as high risk on combined first trimester ultrasound had a complicated fetal outcomes with a survival rate of only 69%, in contrast to pregnancies classified as low risk of which 86% had an uneventful fetal outcome and 95% survived


Prospective observational study (n=202) of monochorionic twins reporting 85% survival of both twins and 93% survival of at least 1 twin with most losses at < 24 weeks and twin to twin transfusion the most important cause of death


Prospective cohort (n=178) concluding unequal placental sharing appears to be involved in the etiology of early-onset discordant growth, whereas a late intertwin transfusion imbalance may be involved in some cases with late-onset discordant growth


A prospective observational study (n=117) showing a low risk (3%) of severe cerebral injury in monochorionic twins in the absence of twin-twin transfusion syndrome


Observational study (n=100 showing tissue oxygenation was increased in the donor twin as a result of laser therapy for twin-twin transfusion syndrome


Observational study determining an objective definition of pulsatile umbilical venous blood flow to diagnose twin-twin transfusion syndrome


Case control study (n=1,112) showing that ultrasound was less accurate in estimating fetal weight in twin pregnancies than singleton pregnancies, and even less accurate for the second twin than the first twin


Retrospective chart review of echocardiographic data (n=65) in twin-twin transfusion syndrome (TTTS) showing that 10% improvement in recipient myocardial performance index (MPI) after selective fetoscopic laser photoacoagulation is associated with improvement in recipient survival compared with unimproved LV MPI (100% vs. 86.1%)


Retrospective study of twin-twin transfusion syndrome with placental insufficiency (n= 52) concluding placental insufficiency impacts the survival of the affected twins


A retrospective cohort analysis showing that monochorionicity has a negative effect on the in utero survival of twins, even among monochorionic-diamniotic twins without abnormalities
Retrospective review of twin, triplet, and quadruplet gestations showing higher risks for both maternal and neonatal complications (PPROM, PIH, excessive bleeding, tocolysis requirement, C/D < 29wks) compared to twin gestations

A survey demonstrating a lack of consensus regarding the role of the anesthesiologist during vaginal twin delivery with data from the author's institution that 27% of patients require anesthetic intervention for the second stage of labor and 6% undergo emergency Cesarean delivery of twin B

Case report emphasizing the importance of a multi-disciplinary approach and the additional challenges posed by excessive media attention

Editorial comment on Carvalho article in the same month; containing a brief review of anesthetic implications of multiple gestation and recommendations for institutional and individual approaches to the care of these patients

RCT (n=200) demonstrating that early versus delayed feeding after cesarean delivery did not improve maternal satisfaction or reduce perceived pain

A RCT (n=100) reporting that early oral hydration post Cesarean delivery reduced hospitalization time

Multicenter, randomized, controlled study (n=291) showed IV ferric carboxymaltose was safe and well tolerated with an efficacy superior to oral ferrous sulfate in the treatment of postpartum iron deficiency anemia (Hb≤10g/dL)

A summary of guidelines for computerized tomography, magnetic resonance imaging, and contrast agent use in pregnancy and lactation

Observational study (n=1,630) demonstrating high efficacy and satisfaction of office-based, tubal microinsert sterilization procedure

Prospective, multicenter study (n=645) demonstrating that a new sterilization device, which uses a bipolar, low-level radiofrequency to implant a polymer matrix promoting fallopian tissue in-growth, achieves bilateral tubal occlusion in 88.4% of patients, while providing a 1-year pregnancy prevention rate of 98.9%

Retrospective audit (n=461) demonstrating a low rate of complications related to outpatient tubal ligation

Case report documenting the diagnosis and management of a right tubo-ovarian abscess secondary to retained surgical sponge from a postpartum tubal sterilization 10 years prior

Termination of Pregnancy

593. Lohr PA, Hayes JL, Gemzell-Danielsson K. Surgical versus medical methods for second trimester induced abortion. Cochrane database of systematic reviews (Online) 2008:CD006714. Systematic review showing that dilation and evacuation is superior to instillation of prostaglandin F2α, mifepristone and misoprostol

584. Winikoff B, et al. “Two distinct oral routes of misoprostol in mifepristone medical abortion: a randomized controlled trial.” Obstet Gynecol 112:1303-10. RCT (n=869) showing that buccal administration of misoprostol, after mifepristone administration, is superior to oral misoprostol in terminating pregnancies up to 63 days since last menstrual period


590. Jeppson PC, Park A, Chen CC. Multivalvular bacterial endocarditis after suction curettage abortion. Obstetrics and gynecology 2008;112:452-5. A case report of a healthy parturient who developed fatal tricuspid and aortic bacterial endocarditis due to the lack of administration of antibiotic prophylaxis prior to or during her suction-curette abortion


592. Gatter M. “Letter to Editor – Mutivalvular bacterial endocarditis after suction curettage abortion.” Obstet Gynecol 112: 1179-81. 2 letters challenging the conclusion of the original case report that proper choice of and timely preoperative antibiotic administration prior to a suction curettage abortion could have prevented the death of a patient secondary to bacterial endocarditis

VBAC

A predictive model for VBAC built on retrospective data from 19 centers (n=11,855) determining that factors available at admission could not be used to predict the 0.7% rate of uterine rupture

Cohort study in California hospitals (n=41,450) concludes variations in rates of successful VBAC and childbirth morbidity can be partially attributed to clinical factors complicating pregnancy

Nested case-control (n=804) within a multi-center, retrospective cohort study (n=25,000) recommending a maximum oxytocin dose of 20mU/min in VBAC trials to avoid an unacceptably high risk of uterine rupture

Commentary describing a framework by which one can include patient preferences when deciding on mode of delivery for 4 scenarios: breech delivery, VBAC, twins, and cesarean delivery on maternal request

Complications-Obstetric

Abdominal/Ectopic Pregnancy

Study validating a simple scoring system based on 5 risk factors for ectopic pregnancy in predicting outcomes in women at risk for ectopic pregnancy

Case series with 74% success rate resecting cornal pregnancies laparoscopically

Case series (n=10) of extrauterine pregnancies ≥18 weeks EGA showing that, irrespective of placental implantation site, advanced extrauterine pregnancy is a serious with difficult surgical dissection and hemorrhage in 90% requiring transfusion

Case series describing the occurrence and management of three consecutive ipsilateral ectopic pregnancies

2 case reports of prophylactic bilateral uterine artery embolization prior to a D&C for a first trimester cervical pregnancy, suggesting that it may be useful in preventing massive hemorrhage and preservation of fertility

Case report describing the successful use of super-selective arterial embolization with a 2.0 F microcatheter in a patient with an abdominal pregnancy and placenta percreta

A case report describing the detection and management of a recurrent ectopic pregnancy in a uterine scar from a cesarean delivery 7 years prior, which was also the site of a prior ectopic pregnancy 3 years ago

Letter concerning Worley case report suggesting absence of uterine contour and Braxton Hicks contractions on abdominal examination are suspicious for extrauterine pregnancy
Anaphylactoid Syndrome of Pregnancy/Amniotic Fluid Embolism

A 4-year population-based cohort study of 3 million women reporting an incidence of 7.7 cases per 100,000 deliveries with a fatality rate of 21.6%

Editorial commenting on Abenhaim et al. reported incidence of amniotic fluid embolism as an overestimation and that the UKOSS registry may yield data closer to the “true” population incidence of 2 in 100,000

Case report of anaphylactoid syndrome after intrauterine pressure catheter placement

Case report of the successful resuscitation of a woman with probable anaphylactoid syndrome of pregnancy necessitating mechanical cardiac support

Case report of likely anaphylactoid syndrome of pregnancy

Case report

Case report of anaphylactoid syndrome of pregnancy

Editorial reminding obstetric providers of the low, but serious risk of venous air embolism from mechanical instrumentation or orlogenital sex

Letter suggesting that sildenafil may be useful in the management of the hemodynamic consequences of amniotic fluid embolism

Letter positing inaccurate estimate of AFE incidence in Abenhaim study secondary to possible inclusion of false positives

Cardiac Arrest/Perimortem Delivery

Case report of Cesarean delivery performed 30 minutes after the death of a pregnant women committing suicide by jumping from 18 meters with resultant neurologically intact child now 4 years old

Editorial noting recent documentation of knowledge deficits among care providers regarding maternal resuscitation, with suggestions for improvement

Letter reporting cardiac arrest coinciding with obstetrician application of fundal pressure during Cesarean delivery

Recommendations in response to Cohen, et. al. assessing knowledge regarding CPR in pregnant women
Cerebrovascular Accident
Case report of hemorrhagic stroke possibly due to use of vasopressors, in relatively modest doses, to treat hypotension

Hemorrhage/Postpartum Hysterectomy
Systematic review providing evidence of the effectiveness of uterine massage after delivery of the placenta is advised to prevent PPH
Exploratory study demonstrating significant reduction of alpha-fetoprotein, squamous cells, and heparin with either a one or two suction system and concluding that there is little or no possibility for amniotic fluid contamination to enter the re-infusion system when used in conjunction with a leucodepletion filter
A 1-year case-control study demonstrating that peripartum hysterectomy is strongly associated with a prior cesarean delivery, with the risk rising with increasing number of previous cesarean deliveries, maternal age >35 years old, and parity > 3
Prospective study comparing the hemoglobin concentration of the suction fluid during a cesarean section using a HemoCue near-patient device and traditional laboratory analysis with a good level of agreement
Prospective observational study (n=58) demonstrating an increased incidence of subsequent miscarriage (56% vs. 10%) in uterine artery embolisation vs. surgical uterine artery occlusion for fibroids
Prospective study (n = 677) reporting blood loss underestimation across all modes of delivery and degrees of perineal laceration with the extent of underestimation increasing with calculated blood loss
Retrospective observational study (n=26,583) demonstrating an association between antepartum bleeding, preterm delivery, low birth weight, and other adverse neonatal outcomes
Retrospective study (n=3,501) determining the prevalence, risk factors, and complications from severe maternal hemorrhage in Norwegian women
Medical records review (n=1,200) reporting that population health data sets are reliable sources for rates of ante- and post-partum hemorrhage
Retrospective study (N=128) concluding overall pregnancy outcome after a primary light episode of antenatal hemorrhage between 16 and 24 weeks EGA is good but worse for heavy bleeding previa and non-previa bleeding cases
A retrospective analysis in 42 patients demonstrating that uterine artery embolization was successful in preventing hysterectomy in 90% of cases of postpartum hemorrhage

Guidelines published for the use of rFVII for post partum hemorrhage by a multidisciplinary group of Australian and New Zealand physicians


Review article


Review that enumerates the principles of cell salvage, the ability of the process to remove contaminants, and its safety profile in the obstetric setting concludes that current evidence supports the use of cell salvage (with leucocyte depletion filters) in obstetrics


Review of postpartum hemorrhage caused by abnormal placentation


Review of the etiology of, and therapeutic options for treating, obstetric hemorrhage


Case series (n=2) with proposed management strategy for first trimester uterine fibroid incarceration


A case report describing the development of uterine necrosis following placement of uterine brace sutures for post-partum uterine atony


Case report of the successful management of prolonged postpartum hemorrhage with uterine artery embolization 3 weeks after delivery in Type 3 von Willebrand disease


Case report of the successful management of post-partum hemorrhage due to a vulvar hematoma with blood products and vitamin K therapy in untreated abetalipoproteinemia


Case report of the successful use factor Vila


Case report of second trimester placenta percreta with subsequent hysterectomy


Case report of delayed post-partum hemorrhage following uterus-conserving surgery in a patient with a placenta percreta


Case report describing the use of FloSeal in the setting of a hysterectomy for post-partum hemorrhage


Case report


The authors argue that selective arterial embolization should become more widely available and should often be used as first-line therapy for postpartum hemorrhage.

Editorial challenging Greenberg et al. case report of complications from hypogastric artery balloon placement before CD for a placenta percreta

Letter

Response letter (Mechsner) asserting that the strategies employed were not new

Melendez J, Siriwardhana S, Yoong W. Peripartum hysterectomy in the UK: management and outcomes of the associated haemorrhage. Bjo 2008;115:799-800; author reply
Letter in response to Knight article highlighting the increased risks of post-partum hemorrhage in Jehovah’s Witnesses

Letter challenging recommendations published as ‘guidelines’ for the use of rFVII

Letter to the editor in response to Teo et al. paper stating that uterine artery embolization alone is not usually sufficient prevent post-partum hemorrhage

Hyperemesis Gravidarum

Prospective study (n=367) finding that the presence and severity of nausea and vomiting in the first trimester adversely affected quality of life

Prospective study (n=68) demonstrating vestibuloocular reflex abnormalities using vestibular autorotation in patients with hyperemesis gravidarum

A case report describing a fatal case of fetal intracerebral bleeding due to vitamin K deficiency after prolonged maternal vomiting in a patient with slippage of a gastric band

Letter questions validity of Lacasse article

Maternal Morbidity and Mortality

Case-control study (n=267, 13,186 controls) demonstrating an increased risk of maternal mortality based on nationality, after adjusting for maternal characteristics

Retrospective study (n=371,021) demonstrating higher incidence of maternal mortality in the Netherlands in non-Western immigrants

Retrospective analysis of the National Hospital Discharge Survey from’91-’03 showing a severe maternal morbidity rate in US of 5.1 per 1000 deliveries with risks including the extremes of reproductive age and African American women

Journal club discussion determining that most maternal deaths are not preventable and no systematic reduction in maternal death rate can be expected unless all women undergoing CD receive thromboembolism prophylaxis

661. Cliffe S, Black D, Bryant J, Sullivan E. Maternal deaths in New South Wales, Australia: a data linkage project. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:255-60. 7-year review (n=173) of maternal deaths focusing on the period 42-365 days postpartum with suicide, cardiac disorders and accidents/violence being the leading causes


663. Craigo PA, Torsher LC. Obstetric anesthesia: outside the labor and delivery unit. Anesthesiology clinics 2008;26:89-108, vii. Review on treating pregnant women with health issues unrelated to pregnancy to reduce maternal morbidity/mortality


665. Bragg R. Maternal deaths and vulnerable migrants. Lancet 2008;371:879-81. Editorial comment on how immigrants to the UK from the Caribbean and Africa have the highest number of maternal deaths in the UK and the contributing factors that need to be addressed in this population


Neurologic Injury

669. Lin SY, Hu CJ, Lin HC. Increased risk of stroke in patients who undergo cesarean section delivery: a nationwide population-based study. American journal of obstetrics and gynecology 2008;198:391 e1-7. Retrospective study in Taiwan (n=987,010) reporting that CD is an independent risk factor for stroke with a hazard ratio of 1.49-1.67 within 3-12 months postpartum


PIH/Preeclampsia

671. Rumbold A, Duley L, Crowther CA, Haslam RR. Antioxidants for preventing pre-eclampsia. Cochrane Database Syst Rev 2008;CD004227. Review of 10 trials (n=6,533) revealing a lack of support for routine antioxidant supplementation during pregnancy to reduce the risk of pre-eclampsia and other serious complications in pregnancy


Review of 34 studies assessing the accuracy of blood pressure measurements in pregnancy using a bivariate regression analysis which demonstrated that diastolic BP is a better predictor of preeclampsia than systolic or diastolic BP.


Katz L, de Amorim MM, Figueiroa JN, Pinto e Silva JL. Postpartum dexamethasone for women with hemolysis, elevated liver enzymes, and low platelets (HELLP) syndrome: a double-blind, placebo-controlled, randomized clinical trial. American journal of obstetrics and gynecology 2008;198:283 e1-8. Prospective, randomized, double-blind trial (n=105) showing no difference in morbidity, mortality, duration of hospitalization, use of blood products, urine output or laboratory value recovery in patients that received dexamethasone postpartum.


Yeo S, Davidge S, Ronis DL, Antonakos CL, Hayashi R, O'Leary S. A comparison of walking versus stretching exercises to reduce the incidence of preeclampsia: a randomized clinical trial. Hypertens Pregnancy 2008;27:113-30. RCT (n=79) of the impact of 2 types of exercise early in pregnancy on preeclampsia with a reporting a lower incidence in the stretching group (2.6%) compared to the walking group (14.6%).

Zetterstrom K, Lindeberg SN, Haglund B, Hanson U. The association of maternal chronic hypertension with perinatal death in male and female offspring: a record linkage study of 866,188 women. BJOG 2008;115:1436-42. Prospective cohort study (n=866,188) demonstrating that maternal chronic hypertension is associated with increased odds of intrauterine and neonatal death in male offspring.

Khaw A, Kametas NA, Turan OM, Bamfo JE, Nicolaides KH. Maternal cardiac function and uterine artery Doppler at 11-14 weeks in the prediction of pre-eclampsia in nulliparous women. BJOG 2008;115:369-76. Prospective observational study (n=534) demonstrating that first trimester alterations in maternal cardiac function were independent predictors of preeclampsia and or SGA infants.


Case-control study (n=50, 250 controls) showing serum PP13 (placental protein 13) concentration in the first trimester was significantly lower in patients with pre-term or early-onset preeclampsia compared to the normal pregnancies


A prospective screening study demonstrating that maternal cardiac output in the first trimester was higher in women who developed preeclampsia and lower in women who delivered small for gestational age infants, compared to unaffected parturients


Cohort study (n=12,377) demonstrating that there is no association between psychological stress in the first half of pregnancy and the development of pre-eclampsia or gestational hypertension


Longitudinal study (n=1,366) finding that high levels, or escalating levels between trimesters, of placental protein 13, may be a marker for developing pre-eclampsia


Observational study (n=188) demonstrating that both albumin/creatinine ratio and protein/creatinine ratios are effective tests for identifying proteinuria in the outpatient setting


Prospective study (n =77) revealed angiogenic factor involvement with blood pressure modulation in normotensive, but not preeclamptic, pregnancies

Fraser R, Walker JJ, Ekbote UV, Martin KL, McShane P, Orsi NM. Interleukin-4 -590 (C>T), toll-like receptor-2 +2258 (G>A) and matrix metalloproteinase-9 -1562 (C>T) polymorphisms in pre-eclampsia. Bjog 2008;115:1052-6; discussion 6.

Case control study (n=117, 146 controls) demonstrating no association between TLR-2 and MMP-9 in preeclamptic women


Nationwide cohort study between 2004-2006 showing that in the Netherlands, the incidence of eclampsia was 6.2 per 10,000 deliveries (increased compared to other Western European countries), with substandard care identified in the majority of audited cases


Cohort study (n=70 of each group) examining markers of cardiovascular disease 1 yr postpartum and concluding that the development of preeclampsia is one of the earliest clinical identifiable markers of a woman’s increased risk of cardiovascular disease


Prospective observational study (n=50) demonstrating that intravenous magnesium sulfate did not alter plasma prostacyclin (PGI2) or thromboxane (TXA2) in severe preeclamptics


A prospective evaluation (n=36) reporting that a new marker for myocardial ischemia is present in higher levels in pregnant women but there was no difference between preeclampsics and healthy controls


Observational study (n=35) identifying elevated levels of serum tyrosine kinase in preeclamptics vs. normal pregnant patients
700. Cadden KA, Walsh SW. Neutrophils, but not lymphocytes or monocytes, infiltrate maternal systemic vasculature in women with preeclampsia. Hypertens Pregnancy 2008;27:396-405. Prospective pathology evaluation (n=21) of subcutaneous fat biopsies concluding that neutrophils are the class of leukocytes primarily responsible for vascular dysfunction in preeclampsia


702. Bdolah Y, Lam C, Rajakumar A, Shivalingappa V, Mutter W, Sachs BP, Lim KH, Bdolah-Abram T, Epstein FH, Karumanchi SA. Twin pregnancy and the risk of preeclampsia: bigger placenta or relative ischemia? American journal of obstetrics and gynecology 2008;198:428 e1-6. Prospective cohort study (n=19) showing that in twin pregnancies, circulating sFlt1 levels (increased placental mass leading to increased levels) and sFlt1/PIGF ratio were twice as high when compared to singleton pregnancies, explaining the increased risk of preeclampsia

703. Napolitano PG, Wakefield CL, Elliott DE, Doherty DA, Magann EF. Umbilical cord plasma homocysteine concentrations at delivery in pregnancies complicated by pre-eclampsia. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:261-5. Prospective observational study (n=18) reporting higher homocysteine levels in the umbilical cord blood and maternal serum in preeclampsia vs. control

704. Belfort M, Allred J, Dildy G. Magnesium sulfate decreases cerebral perfusion pressure in preeclampsia. Hypertens Pregnancy 2008;27:315-27. Observational study of preeclamptics (n=15) using transcranial doppler showing that magnesium sulfate reduces CPP in patients with high baseline values but does not alter CPP substantially in those with mildly elevated baselines


706. Roberts JM. Preeclampsia: new approaches but the same old problems. American journal of obstetrics and gynecology 2008;199:443-4. Editorial letter commending Buhimschi’s use of “discovery science” to help understand preeclampsia which, in contrast to traditional research approaches, is not hypothesis driven but rather hypothesis generating


708. Siddiqui S, Goodman N, McKenna S, Golde M, Waugh J, Brightling CE. Pre-eclampsia is associated with airway hyperresponsiveness. Bjog 2008;115:520-2. Case-control study (n=19) finding that airway hyperresponsiveness is increased in women with preeclampsia versus controls


Retrospective case-control cohort study comparing maternal genotype and allele frequencies of the SEPS1-105 G>A polymorphism genotyped in preeclamptic (n=1,139) and control (n=2,269) women showing the A allele of the SEPS1-105 G>A polymorphism is a significant risk factor for preeclampsia in the Norwegian population

Case control study (n=24) demonstrating an increase in gene expression of oxygen sensitive potassium channels in patient with fetal growth restriction vs. controls

714. van Runnard Heimel PJ, Kavelaars A, Heijnen CJ et al. HELLP syndrome is associated with an increased inflammatory response, which may be inhibited by administration of prednisolone. Hypertens Pregnancy 2008;27:253-65.
An observational study demonstrating the elevation of inflammatory markers during HELLP and the reduction in IL-6 with steroid administration

A pilot study using a laboratory enrichment technique which demonstrated a higher number of trophoblasts in the blood of preeclamptics

An observational controlled study (n=23) reporting that plasma placental growth factor (PIGF) is 12-fold lower in preeclamptics compared with non-preeclamptics

An pilot study of the use of 1H nuclear magnetic resonance spectroscopy on the plasma of preeclamatic patients (n=11) demonstrating an increase in histidine compared with controls

A laboratory evaluation of showing that Th1 cytokine production of lymphocytes and monocytes is reduced in preeclampsia

Analysis demonstrating elevated levels of inhibin A in preeclamptics

Analysis of 58 preeclamptics demonstrating that serum uric acid correlates with diastolic blood pressure but not fetal outcome

Retrospective study analyzing the value of doppler as a diagnostic tool for preeclampsia and SGA infants

A survey demonstrating a 6% rate of hypertension in pregnancy

A validation study of the reported rates of hypertension in pregnancy suggesting that chronic hypertension may be under-ascertained

An analysis (n=71) of preeclamptic placentae showing no correlation between levels of vascular endothelial growth factor receptor 1 (Flt1) and apoptosis

A prospective 4-year collection of eclampsia cases in Morocco (incidence 0.91%) with identification of poor prognostic factors including diastolic BP>115 mmHg


728. Mikolajczyk RT, Zhang J, Ford J, Grewal J. Effects of interpregnancy interval on blood pressure in consecutive pregnancies. Am J Epidemiol 2008;168:422-6. A retrospective semiparametric regression model (n=533) using data from the Collaborative Perinatal Project demonstrating that the reduction in MAP with subsequent pregnancies is attenuated by longer interpregnancy interval, thus making mechanisms involving MAP as an indicator of cardiovascular adaptation less likely implicated in preeclampsia


731. Karinen L, Leinonen M, Bloigu A et al. Maternal serum Chlamydia pneumoniae antibodies and CRP levels in women with preeclampsia and gestational hypertension. Hypertens Pregnancy 2008;27:143-58. A study which identified that women who delivered prematurely because of preeclampsia had higher titres of IgG antibody against Chlamydia pneumonia compared with controls


Review article summarizing 27 maternal deaths due to hypertensive disorders in the Netherlands and suggestions for improvement in management

Case report illustrating HELLP syndrome can present atypically, in the setting of a normotensive patient without proteinuria. Pts can present with other symptoms (right upper quadrant pain, epigastric pain, shortness of breath, and retrosternal chest pain).

Case report of post-partum eclampsia with HELLP, cardiac and renal failure following cesarean delivery

A proposed model to predict preeclampsia in patients based on history, laboratory values and clinical factors

Editorial comment on the need to reduce pre-eclamptic and eclamptic deaths with the use of magnesium sulfate and an identification of barriers to magnesium use and availability in developing countries

Editorial comment on Samuels-Kalow et al. study showing BMI attenuating the relationship between HTN during pregnancy and subsequent mortality

Editorial emphasizing the importance of accurate non-invasive blood pressure measurements in pregnancy.

Author response to Langenfeld letter that critiqued the strength of their recommendations

Perineal Trauma/Lacerations

Editorial letter agreeing with Altman's article that incontinence symptoms are more common after spontaneous vaginal delivery, when compared with cesarean delivery

Systematic review finding that there are increased odds of anal incontinence with instrumental vaginal deliveries compared to cesarean delivery

RCT (n=317) finding no differences in incidence of anal sphincter tears, PPH, or neonatal trauma between regular and restrictive use of episiotomy

A RCT showing that use of Ritgen's maneuver during contractions does not decrease the risk of anal sphincter injury at delivery, compared to manual perineal support

A prospective cohort (n=1,360) demonstrating that the use of episiotomy did not change the incidence of anal sphincter tears, yet, was associated with greater maternal and neonatal morbidity

A model of the female pelvic floor was developed using magnetic resonance data from an asymptomatic nullipara to study levator ani stretch (during simulated vaginal childbirth) with the intent to predict the development of postpartum pelvic floor dysfunction

Letter citing methodologic flaws in Nordenstam study

Preterm Labor/Birth

Meta-analysis of 20 studies demonstrating an increased risk of perinatal mortality primarily from preterm birth associated with cervical conisation for neoplasia

Review of 10 trials (n=1,089 women and 1,161 infants) demonstrating that dexamethasone decreased the incidence of intraventricular hemorrhage compared with betamethasone (RR 0.44), while no differences were seen in respiratory distress syndrome, bronchopulmonary dysplasia, periventricular leukomalacia, perinatal death, or mean birth-weight

Review of 13 trials, of which five were eligible for inclusion (n=474) demonstrating that preterm birth less than 37 weeks EGA was significantly decreased with management based on knowledge of FFN results (15.6%) versus controls without such knowledge (28.6%, RR 0.54)

Meta-analysis determining that antibiotic therapy prolongs pregnancy and reduces neonatal intraventricular hemorrhage in preterm premature rupture of membranes (PPROM) at ≤ 34 weeks EGA

Editorial accompanying the Hutzal et al. article

Systematic review with a single study (n=4,155) meeting the inclusion criteria showing there is evidence that infection screening and treatment programs in pregnant women may reduce preterm birth and preterm low-birth-weights

Systematic review with one trial (n=64) included revealing that there is insufficient evidence to support or refute the use of prophylactic oral betamimetics for preventing preterm birth in women at high risk of preterm labor with a singleton pregnancy

Recommendation to offer progesterone to women with a history of documented preterm labor earlier than 37 weeks gestations but acknowledging that the optimal preparation, dose and route of administration have not been established

Cluster RCT (n=5,828) demonstrating a longer gestation and improved early neonatal mortality in women who received folic acid with iron vs. folic acid alone

Editorial accompanying the Rouse article

RCT (n=1,858) demonstrating that multiple courses of corticosteroids (every 2 weeks) administered for preterm labor between 25 and 32 weeks EGA does not reduce serious perinatal morbidity or mortality and is associated with lower birth weight ad smaller head circumference.


Placebo-controlled, double-blind RCT (n=697) showing that daily Vitamin C (1g) and E (400IU) supplementation in this dose combination may be associated with an increased risk of PROM.


Double blinded RCT (n=71) showing no difference in incidence of preterm delivery or neonatal outcomes between nifedipine and placebo.


RCT (n=70) demonstrating no impact of vaginal progesterone on the recurrence of preterm labor, neonatal ICU admission or sepsis.


Prospective pharmacokinetic study establishing steady state plasma maternal and uterine artery concentrations of nifedipine in 40 women.


Prospective cohort study, (n=8,266) finding that non-Dutch women had a higher risk of preterm birth and the etiology was multifactorial.


7-year follow-up survey on surviving children (n=3,298) from the ORACLE 1 trial, where women with PROM and no overt signs of infection took oral antibiotics and demonstrated prolongation of pregnancy and decreased neonatal morbidity.


Editorial comment with a critical look at the ORACLE trial and whether it is justified or even dangerous to give oral antibiotics in preterm labor based on this clinical trial.


Prospective study (n=784) showing a significant relationship between an elevated complement activation fragment Bb in early pregnancy (<20wks gestation) and spontaneous preterm birth < 34 weeks’ gestation, suggesting inflammatory events in early pregnancy are associated with preterm birth.


Case-control study (n=320) showing higher median concentrations of thrombin-anti III thrombin complex, as evidence of systemic fibrinolysis, in patients with spontaneous preterm births before 34 weeks gestation, independent of inflammation or dyslipidemia.


Prospective cohort (n=116) examining gene-environment interactions that contribute to an increased risk for preterm birth (such as smoking and bacterial vaginosis).

Two prospective studies (n=169, n=31) demonstrating excellent agreement between fetal fibronectin results (used to identify high risk of preterm delivery) obtained by speculum and nonspeculum collection methods

775. Most O, Langer O, Kern R, David GB, Calderon I. Can myometrial electrical activity identify patients in preterm labor? American journal of obstetrics and gynecology 2008;199:378 e1-6. Electrical uterine myography (EUM) was measured prospectively on 87 women, gestational age <35 wks showing that myometrial electrical activity may enhance identification of patients in true premature labor


777. Foglia LM, Deering SH, Lim E, Landy H. Maternal glucose levels after dexamethasone for fetal lung development in twin vs. singleton pregnancies. American journal of obstetrics and gynecology 2008;199:380 e1-4. Prospective study (n=19) with singleton or twin pregnancies admitted 24-34 weeks EGA requiring steroid administration showing twin pregnancies had higher mean glucose values than singleton pregnancies in the first 24 hrs after dexamethasone administration

778. Moynihan AT, Hehir MP, Sharkey AM, Robson SC, Europe-Finner GN, Morrison JJ. Histone deacetylase inhibitors and a functional potent inhibitory effect on human uterine contractility. American journal of obstetrics and gynecology 2008;199:167 e1-7. Using biopsy specimens of human myometrium obtained at elective cesarean section (n=18), the authors raise the possibility that a new class of compounds (histone deacetylase inhibitors) may have tocolytic potential.


781. Sfakianaki AK, Buhimschi IA, Ravishankar V, Bahtiyar MO, Dulay AT, Buhimschi CS. Relationships of maternal serum levels of vascular endothelial growth factor and tensile strength properties of the cervix in a rat model of chronic hypoxia. American journal of obstetrics and gynecology 2008;198:223 e1-7. Animal study using demonstrating chronic hypoxia induces changes in vascular endothelial growth factor (VEGF) leading to decreases in cervical strength to stretch and predisposing to cervical rupture in pregnant rats

782. Xu H, Gonzalez JM, Ofori E, Elovitz MA. Preventing cervical ripening: the primary mechanism by which progesterational agents prevent preterm birth? American journal of obstetrics and gynecology 2008;198:314 e1-8. A microarray analysis was performed to reveal the primary mechanism by which progesteroidal agents prevent preterm birth by using pregnant mouse cervix exposed to progesteroidal agents.

783. Moynihan AT, Smith TJ, Morrison JJ. The relaxant effect of nifedipine in human uterine smooth muscle and the BK(Ca) channel. American journal of obstetrics and gynecology 2008;198:237 e1-8. Biopsies of 24 human myometria were obtained during elective Cesarean delivery demonstrating that the uterorelaxant effect of nifedipine is attenuated by potassium channel (K+ blockade suggesting that the K+ channel conductance plays a role in the relaxant effect of nifedipine


Retrospective cohort study (n=2,527,766) concluding that the risk of CD and neonatal morbidity in low-risk women increases at ≥40 wks, whereas the odds of serious neonatal pulmonary disease were highest at 37 wks.


790. Leveno KJ. Rising cesarean delivery and preterm birth rates: are they related? Obstetrics and gynecology 2008;111:810-1. Editorial stating that cesarean delivery and preterm birth rates are rising, but most cesarean deliveries prior to 39 weeks are done within contemporary obstetrical practice guidelines.


792. Qiu X, Lee SK, Tan K, Piedboeuf B, Canning R. Comparison of singleton and multiple-birth outcomes of infants born at or before 32 weeks of gestation. Obstetrics and gynecology 2008;111:365-71. A linear model analysis of 3,242 infants born at or before 32 weeks EGA demonstrating that multiple-birth and singleton infants had similar rates of adverse preterm outcomes, except for respiratory distress syndrome, which was higher among multiple-birth infants.

793. Jakobsson M, Gisler M, Paavonen J, Tapper AM. The incidence of preterm deliveries decreases in Finland. Bjoq 2008;115:38-43. Retrospective cohort study (n=59,025 preterm deliveries) showing that the rate of preterm delivery has not changed from 1987 to 2005 in Finland, but the rate of extremely preterm deliveries has decreased by 12%.


795. McIntire DD, Leveno KJ. Neonatal mortality and morbidity rates in late preterm births compared with births at term. Obstetrics and gynecology 2008;111:35-41. An 18-year, single institution, retrospective cohort study showing that late preterm births (34-36 weeks EGA) were associated with increased neonatal mortality and morbidity (RDS, transient tachypnea, intraventricular hemorrhage, and sepsis) compared to infants delivered at 39 weeks with 80% due to preterm labor and the remaining 20% due to obstetric complications.

796. Johanson M, Odesjo H, Jacobsson B, Sandberg K, Wennenholm UB. Extreme preterm birth: onset of delivery and its effect on infant survival and morbidity. Obstetrics and gynecology 2008;111:42-50. A 5-year, single institution, retrospective cohort study demonstrating that in cases of extreme preterm birth (23-28 weeks EGA), infant survival was lower when the onset of preterm delivery was due to PPROM, compared to preterm labor or iatrogenic delivery and in surviving infants, there was no difference in major morbidity (intraventricular hemorrhage, retinopathy of prematurity, bronchopulmonary dysplasia, or necrotizing enterocolitis).

Retrospective study from the National Center for Health Statistics demonstrating that white preterm and term infants had relatively greater gains in survival when compared to their African American counterparts.


Retrospective study using data from a previous cohort (n=424 consecutive single pregnancies), showing that among children born 23-32 weeks EGA, neonatal complications, the use of general anesthetic at delivery, and caregiver IQ, but not in utero exposure to acute inflammation, were associated with increased risk of severe adverse neurodevelopmental outcomes at age 6 years.


A subanalysis of the Danish birth database demonstrating that chronic hypertension, young or older maternal age, and recurrent early spontaneous abortions increase risk for preterm small for gestational age births and that these factors may represent an inadequate vascular response to pregnancy leading to abnormal placentation.


Retrospective cohort study of preterm labor patients ≥ 32 wks EGA (n=264) concluding late preterm infants have increased risk of adverse outcomes, compared with term infants with a 23% decrease in adverse outcomes with each week of advancing gestational age between 32 and 39 completed weeks (RR 0.77).


A 10-year retrospective analysis (n=181) demonstrating that a complete course of antenatal corticosteroids is associated with 17% improved survival at 23 weeks of gestation.


A 9-year retrospective analysis showing increased respiratory mortality in neonates delivered by elective cesarean delivery 34-39 weeks EGA.


Retrospective cohort study of various Asian ethnic subgroups demonstrating significant differences in PTL, primary CD, PH, eclampsia, GDM, LBW, macrosomia, and cephalopelvic disproportion among Asian subgroups at a national level, affirming the importance of examining these subgroups separately.


A committee opinion outlining the risks of late preterm delivery including the development of medical complications resulting in higher rates of infant mortality, morbidity before hospital discharge, and hospital readmission in the first months of life.


Survey of selected French hospitals showing that management of threatened preterm delivery varies widely among hospitals.


A regional initiative of telephonic risk assessment and case management of Medicaid recipient women in an 8 county region significantly reduced preterm deliveries < 28 wks and NICU care.


Review of the literature regarding psychosocial stress and the two major adverse pregnancy outcomes of preterm birth and low birth weight.

A letter to the editor challenging the findings of a Cochrane review of oxytocin antagonists, with the claim of an unintentional bias in favor of calcium channel blockers

809. Nassar AH, Usta IM. Nonlaboring patients with preterm premature rupture of membranes: duration of antimicrobial prophylaxis. American journal of obstetrics and gynecology 2008;198:609-10; author reply 10. Editorial accompanying Alvarez et al. paper regarding duration of antibiotics in PROM challenging whether the authors modified their policy regarding choice of antibiotics based on ACOG guidelines


Psychiatric Complications

812. Heron J, McGuinness M, Blackmore ER, Craddock N, Jones I. Early postpartum symptoms in puerperal psychosis. Bjog 2008;115:348-53. Cohort study of women who developed post partum psychosis (n=127) finding that 73% of the women experience onset of hypomanic symptoms by post-partum day 3


Thromboembolism/Pulmonary Embolism


815. Righini M, Le Gal G, Aujesky D, Roy PM, Sanchez O, Verschuren F, Rutschmann O, Nonent M, Cornuz J, Thys F, Le Manach CP, Revel MP, Poletti PA, Meyer G, Mottier D, Perrier T, Bounamaux H, Perrier A. Diagnosis of pulmonary embolism by multidetector CT alone or combined with venous ultrasonography of the leg: a randomised non-inferiority trial. Lancet 2008;371:1343-52. Multicenter randomized double blind control trial (n=1,693) in non-pregnant patients with low or intermediate suspicion for pulmonary embolism reporting an overall incidence of 0.6% at 3 months and concluding that ultrasound is not necessary to rule out the diagnosis


817. Picklesimer AH, Jared HL, Moss K, Offenbacher S, Beck JD, Boggess KA. Racial differences in C-reactive protein levels during normal pregnancy. American journal of obstetrics and gynecology 2008. Cross-sectional analysis of a cohort study (n=775) showing that black women (compared to white women) had higher median CRP values even after the data were controlled for known confounding factors of smoking and maternal weight

818. Sharma S, Monga D. Venous thromboembolism during pregnancy and the post-partum period: incidence and risk factors in a large Victorian health service. The Australian & New Zealand journal of obstetrics & gynaecology 2008;48:44-9. Retrospective study (n=8) of all cases of obstetric thromboembolism over a 7-year period with an incidence of 1.14 in 1,000 and identification of risk factors

819. Knight M. Antenatal pulmonary embolism: risk factors, management and outcomes. Bjog 2008;115:453-61. Case-control study (n=143, 259 controls) finding that in several cases where maternal mortality was due to pulmonary embolism, guidelines for thromboprophylaxis were not followed

820. Fox NS, et al. “Anti-factor Xa plasma levels in pregnant women receiving low molecular weight heparin thromboprophylaxis.” Obstet Gynecol 112: 884-9. Retrospective chart review 2001-2005 demonstrating that anti-factor Xa levels were in the therapeutic range in 59% and subtherapeutic in 26% of parturients receiving low molecular weight heparin
A QA evaluation (n=38) of a dosing regimen of unfractionated heparin after discontinuing low molecular weight heparin
Review article where the authors assert that given the low absolute risk of thrombosis in patients carrying most
thrombophilia mutations, even in pregnancy, they are not convinced that routine policy of performing testing on patients
with an episode of venous thrombosis will improve overall health.
Review article on the diagnosis and treatment of the leading cause of maternal death
Case series of 12 pregnancies with IVC filter use.
Case series (n=3) describing the diagnosis and management of May-Thurner Syndrome patients (a congenital
narrowing of the right iliac artery) with post-partum DVTs
A case report of the management of a patient without any identifiable pro-thrombotic states or inherited thrombophilias
who spontaneously developed superior mesenteric artery thrombosis 8 days after uncomplicated vaginal delivery
A case report and discussion of the diagnosis and management of a patient who developed asymptomatic ovarian vein
thrombosis and its impact on future pregnancies
An editorial reviewing the anticoagulants options for use in pregnancy, and the importance of monitoring for heparin-
induced thrombocytopenia
6.
Letter to Editor disagreeing with author that CTPA is preferred test for PE in pregnancy
CT scan of a post-partum right-sided pulmonary embolism

Umbilical Cord Issues
Case report of spinal anesthesia placement for Cesarean delivery in the knee-chest position because of cord prolapse
in an obese patient with a Mallampati 4 airway

Uterine and Bladder Rupture
Prospective cohort study from Australian database (n=10,160) showing that patients who had spontaneous onset,
nonaugmented labor prior to a primary cesarean delivery had > 50% decrease in risk of uterine rupture in a subsequent VTOL compared to women who had an augmented or induced trial of labor prior to primary cesarean delivery
Editorial accompanying Algert et al.
A case report of a secondary abdominal pregnancy in the third trimester due to a late rupture of the uterus that resulted in a viable extrauterine pregnancy

A case report of uterine rupture and complete mid-abdominal fetal transection due to improper seatbelt positioning during a high-speed motor vehicle accident

Case report describing a first trimester uterine rupture during a misoprostol/mifepristone termination of pregnancy

Case report

Uterine Inversion

A brief discussion of uterine inversion and possible management strategies

Critical Care for Obstetric Patients

This is a thorough discussion of the incidence, pathophysiology and clinical presentation of what is thought to be the leading cause of transfusion-related mortality. In this report, the diagnosis of TRALI was confirmed by subsequent blood bank testing.

A 23-year utilization review of obstetric intensive care at a UK hospital with hemorrhage as the leading cause of admission and admission rates rising from 2.7% to 5% over the course of the study

Fertility

Meta-analysis of 15 trials (n=2,118) showing no difference in preventing miscarriage between progestogen and placebo or no treatment and no difference in the incidence of adverse effect in the mother or baby

Meta-analysis of 16 studies concluding that obese women have a higher rate of miscarriage

Meta-analysis of 7 studies reporting an increased pregnancy rate (OR 1.65) and rate of live birth (OR 1.91) when IVF is accompanied by acupuncture

Meta-analysis showing that acupuncture does not improve the rate of successful in vitro fertilisation

Retrospective cohort study using the Medical Birth Registry of Norway showing no increased risk of perinatal morbidity in siblings conceived spontaneously (n=2,204) as compared with those conceived via artificial reproductive technology (n=2,204)

Comment on Romundstad et al. cohort study
848. Zolghadri J, Tavana Z, Kazerooni T, Soveid M, Taghieh M. Relationship between abnormal glucose tolerance test and history of previous recurrent miscarriages, and beneficial effect of metformin in these patients: a prospective clinical study. Fertility and sterility 2008;90:727-30. A combined observational study demonstrating an association between an abnormal glucose tolerance test and recurrent miscarriage and a small RCT (n=29) demonstrating an increased incidence of successful pregnancy with metformin vs. placebo.


850. Maxwell KN, Choist IN, Rosenwaks Z. The incidence of both serious and minor complications in young women undergoing oocyte donation. Fertility and sterility 2008;90:2165-71. Observation study (n=886) reporting 0.7% rate of serious complications in oocyte donation.


853. Bhattacharya S, Townend J, Shetty A, Campbell D, Bhattacharya S. Does miscarriage in an initial pregnancy lead to adverse obstetric and perinatal outcomes in the next continuing pregnancy? Bjog 2008;115:1623-9. Cohort study finding that women with a miscarriage during their first pregnancies were at increased risk for adverse obstetric and perinatal outcomes in subsequent pregnancies.


Response letter (Mechsner) asserting that the strategies employed were not new

**Economics and Staffing**

   Review of 11 trials (n=12,276) which showed that women who had midwife-led models of care were less likely to experience antenatal hospitalization, the use of regional analgesia, episiotomy, and instrumental delivery and were more likely to experience no intrapartum analgesia/anesthesia, spontaneous vaginal birth and to feel in control during labor and childbirth. In addition, women who were randomized to receive midwife-led care were less likely to experience fetal loss before 24 weeks’ gestation, and their babies were more likely to have a shorter length of hospital. There were no statistically significant differences between groups for overall fetal loss/neonatal death or fetal loss/neonatal death of at least 24 weeks EGA.

   Retrospective regression analysis of mortality rates at 369 hospitals providing care for 1,141,641 births demonstrating no difference in mortality or morbidity rates between different care giver models

   Qualitative study of 877 rural women finding that most women prefer hospital births under physician care compared to home birth under midwife care

   An analysis of labor and delivery anesthesia staffing models based on a survey of 1,135 hospitals

   An analysis of manpower in academic anesthesiology from 1986-2006 compared to data prior to 1986 reporting that the percentage of women has increased with mixed results in changes in other measures of professional stature

   Letter to the editor demonstrating workload variation by day of week and suggesting this method of data analysis may improve staffing management

**Education/Residency/Registrar Training**

   A randomized trial in 19 South American hospitals demonstrating that a multifaceted educational intervention increased the use of prophylactic oxytocin, reduced hemorrhage and episiotomies at hospitals that received the intervention

   A simulation-based educational study (n=71) showing improved residents’ and attending physicians’ performance in simulated shoulder dystocia deliveries

   Observational study of the use of simulation to train resident in obstetric crisis management with feedback provided by experts on most valuable lessons for future teaching

   Internet survey answered by 643 members of the Society for Maternal-Fetal Medicine showing that MFM is incorporating more ambulatory care medicine, and that MFM training programs tend to rate highly in training for ultrasonography and high-risk pregnancy management

   Audit documenting a continued decline in number of obstetric general anesthetics that trainees are exposed to per year (1 per trainee per year for period studied) in the UK
Summary of the 2006 Ostheimer lecture

A summary of key concepts needed to use surgical simulators effectively for teaching and assessment

876. Moore KD, Voutsos LJ. Management of shoulder dystocia skill retention 6 and 12 months after training. Obstetrics and gynecology 2008;111:994, author reply
A letter suggesting that the Hawthorne effect may have influenced the results of a study investigating retention of shoulder dystocia skills after training

In response to Cornforth’s report regarding the provision of PDPH information to general practitioners, the authors describe their practice of information distribution

Ethics
Article imploring physicians to weigh the benefits of knowledge gained versus the risk of the loss of patient confidentiality in maternal mortality enquiries

Letter to the editor describing case where a parturient intentionally violated fasting guidelines in an attempt to manipulate the timing of her cesarean delivery

History
Speech by Dr. Janice Bacon, the first woman physician president of the South Atlantic Association of Ob and Gyn (70th Annual Meeting) honoring the pivotal women in ob/gyn

Historical review of obstetric anesthesiologists

Author’s opinion on what we can learn from medical history

Medicolegal Issues
Review of litigation risks in obstetric anesthesia

Miscellaneous
Cohort study of Danish women (n=30,480) finding that the fear of childbirth in nulliparas has not changed between 1997 and 2003

Essay on teenage pregnancy
Nursing
Retrospective study (n=280,097) using the Dutch midwifery database confirming appropriate patient selection for home births and that there are satisfactory neonatal outcomes in deliveries by midwives
Letter

Public Health/Policy
Meta-analysis of studies of pregnancy outcomes in Somali women demonstrating that there is an increase risk of cesarean deliveries and IUFD's compared to non-Somali women
Case-control study (n=355, 1,420 controls) evaluating preexisting psychiatric risk factors for postpartum suicide attempts resulting in hospitalization from '92-'01 reporting a 27 fold increased risk of postpartum suicide attempt with a psychiatric disorder, 6 fold increase with a substance use disorder and an 11 fold increase in those with a dual diagnosis increased risk compared to control
Interviews of 2,341 randomly sampled women demonstrating higher relative risks of miscarriage (RR 1.4) and abortion (RR 2.5) associated with intimate partner violence
Follow-up observational study (n=39) showed women who voluntarily maintain their exercise regimen during pregnancy continue to exercise over time at a higher level than those who stop and that they gain less weight (3.4 vs. 9.9 kg), deposit less fat (2.2 vs. 6.7 kg), have increased fitness, and have a lower cardiovascular risk profile than those who stop
Review concluding the beneficial effects of exercise on pregnancy outcome
Survey demonstrating only moderate compliance with auditable guidelines published by the OAA and the Association of Anaesthetists of Great Britain and Ireland
Review of successful implementation strategies of intervention packages that have improved maternal and child health
Description of the problem of racial disparities in adverse birth outcomes, outlining the multidimensional nature of racism and the pathways by which it may adversely affect health with implications for clinical practice
Review of the personal, societal and financial costs of intimate partner violence, stressing the importance of recognition and screening and appropriate referral
Review supporting the premise that community participation, mobilization and empowerment is the best method to influence a community’s overall health
Review of the effects of societal factors on pregnancy outcomes and an examination of some of the potential remedies for preventing adverse pregnancy outcomes.

Review of the interventions for undernutrition that are effective in improving nutrition and nutrition-related outcomes for mothers and children.

An evaluation of the major causes of undernutrition in women and children worldwide and the morbidity and mortality associated with them.

Editorial on maternal public health.

Editorial comment outlining the achievements and drawbacks of China’s reproductive healthcare system.

Summary of US presidential candidates positions on reproductive issues.

Editorial on US presidential election and the future of reproductive issues.

905. **Yeh J, Brandes N, Stanton ME. Two decades of the safe motherhood initiative. Obstetrics and gynecology 2008;111:994-5, author reply 5.**
A letter advocating that public health strategies and policies should be backed by evidence of effectiveness before widespread implementation.

Summary and evaluation of effective strategies in improving undernutrition in countries with high undernutrition burden.

Review.

Editorial on the importance of undernutrition as a public health issue.

Letter to the editor stating that human rights go hand in hand with maternal health.

A critical analysis of the systemic issues that account for the smaller than expected reduction in infant and maternal mortality despite implementation of a village-based midwife programme in Indonesia.

Letter to the editor emphasizing the importance of bringing maternal mortality to the attention of appropriate governments.

Letter with concern over the lack of accessibility to emergency services for cesarean delivery as an area for improvement in maternal and newborn survival.

Editorial commenting on a scientific and social movement to decrease infant and maternal mortality.

914. **Bernstein S, Say L, Chowdhury S. Sexual and reproductive health: completing the continuum. Lancet 2008;371:1225-6.**
Author comments on the importance of focusing on women’s sexual and reproductive health to decrease maternal and infant mortality.

Author comments on the progress made in child preventative medicine and applauds those countries making efforts toward the Countdown to 2015


The authors tracked international aid disbursement to maternal, newborn and child health programs

Professionalism


David Chestnut’s inspiring Fred Hehre lecture from the 2006 SOAP annual meeting, in which he shared a lifetime of lessons learned practicing obstetric anesthesia

Research


Audit of total number of neuraxial procedures performed in the UK over a 2-week period for extrapolation into an annual national complication rate


Secondary data analysis correlating 2 methods of pain measurement


Description of a potentially promising animal model for pain in laboring rats


Letter to the editor regarding Kaczmarczyk study emphasizing the importance of primary data collection as opposed to using ICD codes in research

Safety


Observational study (n=110) demonstrating adequate documentation in a simulated shoulder dystocia and that the use of a preformatted sheet improves completeness, but not accuracy, of documentation


Observational study demonstrating that shoulder dystocia simulations revealed significant deficits in communication and clinical management, but that skills training led to improvements in management that persisted up to 1 year after training


A retrospective multicentered logistic regression (n=17,996) concluding that there is no increased maternal or neonatal morbidity associated with physician shift changes but that hysterectomy and neonatal facial nerve palsy was associated with nursing shift change


Subanalysis of prospective RCTs in obstetric emergency simulation-based training demonstrating the added educational value of using live actors as patients vice manikins

An ACOG Committee opinion reaffirming the detrimental impact that provider fatigue has on patient care and safety, offering tips to help prevent provider fatigue and improve healthy sleeping habits.

   Survey sent to obstetric units to ascertain the compliance to the guidelines for the preparation, storage, and administration of drugs meant for the epidural route.

   A review of the implementation an obstetric crisis team for responding to maternal and/or fetal crises.

   Review of the literature demonstrating that Crew Resource Management-based team training can decrease the current medical malpractice crisis in obstetrics by decreasing the errors that lead to the adverse events for which clinicians are sued.

   Review of the principles of team training in the labor and delivery suite using simulation.

   One of the nation’s largest private health care systems implemented a patient safety process program with subsequent improvements reported in clinical outcomes, decline in litigation claims, and reduction in Cesarean delivery rates.

   Letter of warning.

   A description of a teamwork training model for labor and delivery.

   Letter cautioning against the practice of using 500mL bags of 0.1% bupivacaine and fentanyl 2mcg/mL for labor analgesia.

Books
   Book review