As a benefit to its members, the SOGC is pleased to present the latest edition of our Scientific Review email broadcast. You can select your preferred format for viewing the citations: arranged by category, as usual, or as a single listing arranged alphabetically by author.

Recently we introduced a new category, ‘technology’, representing the increasing number of articles which address advances in this area of obstetrics and gynaecology.

This service provides you with a fast and easy portal to recent developments in evidence-based research in the field of obstetrics and gynaecology. The categories for inclusions are selected based on the SOGC’s own clinical practice guidelines, and may vary each month, based on the availability of noteworthy citations.

As always, we love to hear what our members think. Please send any feedback or comments about the Scientific Review to SciRev@sogc.com.

Sincerely,

Dr. Douglas Black
President
The Society of Obstetricians and Gynaecologists of Canada

En tant qu’avantage pour ses membres, la SOGC est heureuse de présenter le dernier numéro de son service de diffusion par courriel, le Survol scientifique. Vous pouvez maintenant sélectionner le format d’affichage des références que vous préférez : par catégorie, comme d’habitude, ou en liste simple, par ordre alphabétique selon le nom des auteurs.

Nous avons récemment lancé une nouvelle catégorie « technologie », représentant un nombre accru d’articles qui touchent aux progrès dans ce domaine de l’obstétrique-gynécologie.

Ce service vous fournit un lien rapide et aisé aux derniers progrès en recherche factuelle dans le domaine de l’obstétrique et de la gynécologie. Les catégories incluses sont choisies en fonction des directives cliniques de la SOGC et peuvent varier d’un mois à l’autre, selon la disponibilité des références notables.

Nous accueillons avec plaisir tous vos commentaires concernant le Survol scientifique, lesquels peuvent être envoyés à SciRev@sogc.com.

Sincèrement,

Dr. Douglas Black
Président
La société des obstétriciens et gynécologues du Canada (SOGC)

   … “This report will demonstrate that the health care system and those working within it have an important and often under-utilised role in reducing health inequalities through action on the social determinants of health... The report contains recommendations and analysis in six core areas, described below. It also contains nineteen Statements for Action about actions health professionals can take to tackle the social determinants of health through their practitioner role.”


   **Category:** Education; Ethics; Social Sexual


   “This quality standard covers the management of primary hypertension in adults, including diagnosis and
investigations, treatment to reduce risk of cardiovascular disease, monitoring of treatment efficacy, and specialist referral.”


Category: Maternal Fetal Medicine

Category: Contraception

…”Given the balance of risks and benefits, the Committee on Obstetric Practice believes that in the absence of maternal or fetal indications for cesarean delivery, a plan for vaginal delivery is safe and appropriate and should be recommended to patients. In cases in which cesarean delivery on maternal request is planned, delivery should not be performed before a gestational age of 39 weeks. Cesarean delivery on maternal request should not be motivated by the unavailability of effective pain management. Cesarean delivery on maternal request particularly is not recommended for women desiring several children, given that the risks of placenta previa, placenta accreta, and gravid hysterectomy increase with each cesarean delivery.”  
Category: Obstetrics

CONCLUSION: “Vitamin D insufficiency is associated with an increased risk of gestational diabetes, pre-eclampsia, and small for gestational age infants. Pregnant women with low 25-OHD levels had an increased risk of bacterial vaginosis and lower birth weight infants, but not delivery by caesarean section.”  
Category: Maternal Fetal Medicine; SOGC Members

Category: SOGC Members

AUTHORS’ CONCLUSIONS: “We recommend surgery for early-stage AC of the uterine cervix in carefully staged patients. Primary chemoradiation remains a second best alternative for patients unfit for surgery; chemoradiation is probably first choice in patients with (MRI or PET-CT-suspected) positive lymph nodes. Since the last version of this review no new studies were found.”  
See http://plus.mcmaster.ca/evidenceupdates/ for McMaster Online Rating of Evidence (MORE) ratings and

**AUTHORS’ CONCLUSIONS:** “FGC research has focused mainly on observational studies to describe the social and cultural context of the practice, and we found no intervention trials conducted to improve outcomes for pregnant women presenting with complications of FGC. While RCTs will provide the most reliable evidence on the effectiveness of interventions, there remains the issue of what is considered ethically appropriate and the willingness of women to undergo randomisation on an issue that is enmeshed in cultural traditions and beliefs. Consequently, conducting such a study might be difficult.”


**Category:** Ethics; Gynaecology; Social Sexual


**CONCLUSION:** “Maternal recall of infant characteristics and events that occurred during labour and delivery is excellent at four months post-partum and is a valid source of information for research purposes.”


**Category:** Obstetrics; Methodology; SOGC Members; Technology


**CONCLUSION:** “Delivering African women from countries where infibulation is common carries an increased risk of AST compared with Swedish-born women, despite delivering in a highly technical quality healthcare setting. AST can cause anal incontinence and it is important to investigate risk factors for this and try to improve clinical routines during delivery to reduce the incidence of this complication.”


**Category:** International Women’s Health; Obstetrics; Social Sexual


**CONCLUSION:** “Strategies that maximize detection of women at greatest risk of cervical intraepithelial neoplasia grade 3 or greater by immediate referral to colposcopy, with follow-up testing of women at intermediate risk, maximize the benefits of cervical cancer screening while decreasing the potential harm. Incorporating screening with HPV and triage of HPV-positive women by a combination of genotyping for HPV16/18 and cytology provided a good balance between maximizing sensitivity (benefit) and specificity by limiting the number of colposcopies (potential harm).”

See [http://plus.mcmaster.ca/evidenceupdates/](http://plus.mcmaster.ca/evidenceupdates/) for McMaster Online Rating of Evidence (MORE) ratings and

**CONCLUSIONS:** “To support informed contraceptive decision-making, healthcare professionals should realize that a woman's view of a method's ease of use is more important than perceived efficacy, tolerability, health benefits, or risks.”


**CONCLUSION:** “Increasing BMI is associated with increasing rates of preeclampsia, gestational hypertension, and gestational diabetes. There is a significant increase in rates of induction of labour with increasing obesity class, and a significantly increased Caesarean section rate with higher BMI. Obstetrical care providers should counsel obese patients about the risks they face and the importance of weight loss before pregnancy.”


**CONCLUSION:** “This large Canadian cohort study confirms that, compared with adults, adolescents have improved outcomes such as lower rates of gestational hypertension, gestational diabetes, antepartum hemorrhage, and operative deliveries. However, adolescents also have higher sociodemographic risk factors and seek prenatal care later than adults. These risk factors in combination with young age, lead to other important maternal, obstetrical, and neonatal adverse outcomes. These findings highlight the importance of multidisciplinary prenatal management in the adolescent population to address their high-risk needs, to ensure healthy pregnancies, and to reduce adverse perinatal outcomes.”


…“Despite substantial interest in the text4baby program in an underserved population, innovative ways to help women with significant disadvantages enroll and receive uninterrupted messages are needed.”

   “Additional well-designed research that is grounded in appropriate theories of behaviour change is needed to improve confidence in the effect of NEC. Further, cost-effectiveness research is needed to clarify the added benefit and sustainability of providing NEC with nutritional support and/or safety nets, especially in areas where food insecurity and gender bias may limit women's capacity to adhere to NEC messages.”

   CRITICAL APPRAISAL: [http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?AccessionNumber=12012034761](http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?AccessionNumber=12012034761)


   CONCLUSIONS: “While advanced critical appraisal requires judgment, training, and practice, it is possible for a non-specialist to grasp GRADE basics very quickly.”


   WIDER IMPLICATIONS OF THE FINDINGS: “Based on the current meta-analysis with IPD we found no confirmation for the hypothesis that preconceptionally started low-dose aspirin reduces the incidence of hypertensive pregnancy complications or preterm delivery in IVF women. Larger studies are warranted.”


   “The decision by ACOG to support OTC access to contraceptive pills was certainly bold, and it is likely that not all practicing obstetrician-gynecologists agree with it. But the evidence to date clearly indicates that oral contraception could be safely provided OTC and that women would use it effectively. Given the potential for opposition from various social and professional groups, the ACOG statement may help to motivate a pharmaceutical company or other sponsor to perform the required research for an oral contraceptive product to become available OTC. At the same time, advocacy will be needed to ensure insurance coverage of OTC contraceptives, ideally without a prescription, so that this effort has the greatest possible impact on unintended pregnancy. Making at least some formulations of the pill available without a prescription will increase the options available to women to help them better meet their contraceptive needs.”


CONCLUSION: “Through iterations of pilot testing, we created 2 validated survey instruments for implementation as a component of program evaluation. Testing in remote locations highlighted unique rural concerns, such that University of British Columbia health care professional training will now better serve BC community needs.”


Category: Aboriginal; Miscellaneous


Rapid response: http://www.bmj.com/content/346/bmj.f1464/rr/638159 (Dustin Costescu, Ashley Waddington - SOGC members)
All rapid responses: http://www.bmj.com/content/346/bmj.f1464?tab=responses


Category: Contraception


CONCLUSIONS: “The public predominantly place the responsibility for medical adverse events on doctors, in particular general practitioners, and to a lesser degree on the system. This should be emphasised by doctors and managers who communicate with patients who have experienced AEs, and in patient safety work. Only a small fraction of adverse events results in a formal written complaint. Therefore, such complaints are of limited value as a basis for patient safety work.”


Category: Medico-Legal; Patient Safety


CONCLUSIONS: “In our sample taken in 2006 to 2007, most infants had umbilical cords clamped immediately after the birth, with more than one-half clamped within 15 seconds of birth. Since the time of our study, delayed umbilical cord clamping for the healthy term newborn has become a part of recommended management of third stage of labor and resuscitation guidelines. It would be informative to repeat a study like this one to determine compliance with the current standards of care.”

Publisher’s abstract: http://onlinelibrary.wiley.com/doi/10.1111/birt.12027/abstract

Category: Obstetrics; Paediatrics; SOGC Members


AUTHORS’ CONCLUSIONS: “There is insufficient evidence to assess the effectiveness of interventions for domestic violence on pregnancy outcomes. There is a need for high-quality, RCTs with adequate statistical power to determine whether intervention programs prevent or reduce domestic violence episodes during
pregnancy, or have any effect on maternal and neonatal mortality and morbidity outcomes.”


Category: Social Sexual; SOGC Members


**CONCLUSIONS:** “Our findings from this pilot study suggest that massage therapy by a registered massage therapist has the potential to be an effective means of pain management that may be associated with delayed use of epidural analgesia. It may therefore have the potential to reduce exposure to epidural analgesia during labor and decrease rates of associated sequelae.”


Category: Obstetrics; SOGC Members


**CONCLUSIONS:** “This study found no association between exposure to SSRIs during pregnancy and stillbirth or neonatal mortality.”

See http://plus.mcmaster.ca/evidenceupdates/ for McMaster Online Rating of Evidence (MORE) ratings and comments (*available with free registration*)


Category: Maternal Fetal Medicine


**CONCLUSION:** “E-professionalism should be included in the definition, teaching, and evaluation of medical professionalism. Curricula should include a positive approach for the proper professional use of social media for learners.”


Category: Education; Technology


**CONCLUSION:** “All hospitals and health authorities can use this standardized classification system as part of a quality improvement initiative to monitor Caesarean section rates. This classification system identifies relevant areas for interventions and resources to reduce rates of Caesarean section.”


Category: SOGC Members

AUTHORS’ CONCLUSIONS: “There are insufficient data to say anything conclusive about the effect of position for the second stage of labour for women with epidural analgesia. Women with an epidural should be encouraged to use whatever position they find comfortable in the second stage of labour. Future research should involve large trials of positions that women can maintain and predefined endpoints. One large trial is ongoing.”

See [http://plus.mcmaster.ca/evidenceupdates/](http://plus.mcmaster.ca/evidenceupdates/) for McMaster Online Rating of Evidence (MORE) ratings and comments (available with free registration)


Category: Obstetrics


SUMMARY STATEMENTS: “1. As women are postponing child-bearing, more of them are experiencing cancer in pregnancy. (II-2) 2. Chemotherapeutic agents used to combat cancer cross the placenta and may adversely affect embryogenesis by affecting cell division. (II-1) 3. Exposure to such agents after the first trimester of pregnancy has not been associated with increased risk of malformations but is associated with increased risk of stillbirth, intraterine growth restriction, and fetal toxicities. (II-2) RECOMMENDATIONS: 1. The health care provider should examine the patient's risk of pregnancy and desire to prevent pregnancy during chemotherapy. (I-A) 2. Decisions about the best course of management in pregnancy, including timing of delivery, should balance maternal and fetal risks. Most authorities concur that maternal health and well-being must prevail. (I-A) 3. Women diagnosed with cancer in pregnancy should be optimally managed by a multidisciplinary team that includes oncologists and/or hematologists (depending on the malignancy), perinatologists, family physicians, psychologists, social workers, and spiritual advisors, if sought by the family. (I-A)”


Category: SOGC Members


CONCLUSION: “EMLs [essential medicines lists] of LMICs provide comprehensive coverage of preeclampsia pharmacotherapy. These EMLs may be used as advocacy tools to ensure the availability of these therapies within each country.”


Category: SOGC Members


CONCLUSIONS: “We found no relevant association between maternal vitamin D status in pregnancy and offspring BMC in late childhood.”

Editorial: Steer PJ. Is vitamin D supplementation in pregnancy advisable?


Category: Maternal Fetal Medicine; Paediatrics

**CONCLUSIONS:** “There is inequity in availability of peer-reviewed research in the fourteen Canadian health ministries. This inequity could present a problem, as each province and territory is responsible for formulating and implementing evidence-informed health policies and services for the benefit of its population.”


Category: Miscellaneous


**CONCLUSIONS:** “Young age at first vaccination is imperative for maximizing quadrivalent HPV vaccine effectiveness.”


Category: Gynaecology; Infectious Disease; Oncology


**CONCLUSION:** “A transobturator tape procedure has less direct medical costs than a laparoscopic Burch colposuspension or a laparoscopic two-team sling procedure in the surgical treatment of stress urinary incontinence.”


Category: SOGC Members


**CONCLUSIONS:** “Low-income women were interested in learning about physical activity and respond positively to online delivery. Overall EC [eating competence] levels were low, but higher for physically active women, supporting efforts to enhance EC. Additional research is needed to determine if EC is associated with responses to physical activity education.”


Category: Social Sexual


…“The challenges for translational research have been highlighted in recent publications and are evident in fetal asphyxia. The goals of translational research will only be achieved with a continuing commitment to both laboratory and clinical research.”

"PreHOT aims to improve the health and wellbeing of preterm infants through research and knowledge translation: to predict risk of preterm birth, to elucidate ways to prevent preterm birth and to effectively intervene and improve health and development outcomes for preterm infants. This supplement contains thirteen articles describing PreHOT research projects, all united in the aim to provide important information that helps to solve the complex problem of preterm birth."

See a related interview with Andrew Lyon, one of the PreHOT team in the BMC series blog.


**CONCLUSIONS:** "Use of drugs not recommended during pregnancy in women with diabetes of child-bearing age is common but is not associated with increased use of contraception. There is need to identify and overcome barriers to effective contraception use for this population group in order to facilitate optimal management of cardiovascular risk."


**CONCLUSIONS:** "Although randomized trials have demonstrated the efficacy of SP, studies evaluating scale-up programs found less consistent reductions in LBW and maternal anemia. Additional strategies to improve SP coverage may reduce the LBW and maternal anemia associated with malaria in pregnancy."


**DISCUSSION:** "SPRING will show if probiotics can be used as an easily implementable method of preventing gestational diabetes in the high-risk group of overweight and obese pregnant women."

N.B. Highly accessed

42. Ogilvie GS, Krajden M, van Niekerk DJ, Martin RE, Ehlen TG, Ceballos K, et al. Primary cervical cancer screening with HPV testing compared with liquid-based cytology: results of round 1 of a randomised controlled
CONCLUSION: “After subsequent screening of women who were either hrHPV positive/cytology negative or ASC-US positive/HPV negative, women randomised to the HPV arms had increased CIN2+ detection compared with women randomised to the cytology arm.”


Category: Genetics; Infectious Disease; Oncology; SOGC Members


CONCLUSIONS: “Ondansetron taken during pregnancy was not associated with a significantly increased risk of adverse fetal outcomes.”


Category: Maternal Fetal Medicine


CONCLUSION: “Differences in people, organization, and leadership factors do influence the effectiveness of CTS programs, particularly with regard to the ability to access and leverage BMI, CS, IS, and IT expertise and resources. Based on this finding, we believe that the development of a better understanding of how optimal BMI, CS, IS, and IT organizational structures and leadership models are designed and implemented is critical to both the advancement of CTS and ultimately, to improvements in the quality, safety, and effectiveness of healthcare.”


Category: Education; Methodology


CONCLUSIONS: “Women who see a medication on one of these ‘safe’ lists would be led to believe that there is no increased risk of birth defects resulting from exposure. Thus, women are being reassured that fetal exposure to these medications is safe even though a sufficient evidence base to determine the relative safety or risk does not exist.”


Category: Maternal Fetal Medicine; Patient Safety


CONCLUSIONS: “This is the first study to use qualitative analysis to identify that pregnant women perceive fetal movements and can describe them in a relatively homogenous way throughout pregnancy that follow a general pattern of fetal growth and development. These findings suggest that women's perception of fetal wellbeing
based on their own assessment of fetal movement is used in an ad hoc method in antenatal care by clinicians."

N.B. Highly accessed


Category: Maternal Fetal Medicine; Obstetrics


**CONCLUSION:** "Although the majority of respondents were aware of FGM/C, their ability to identify the condition and its associated morbidity remain suboptimal; more training is recommended in larger cities with a higher prevalence of this condition."


Category: Ethics; Gynaecology; Social Sexual


**CONCLUSIONS AND RELEVANCE** "Although statistically significant associations between antidepressant exposure and pregnancy and delivery outcomes were identified, group differences were small and scores in the exposed group were typically within the normal ranges, indicating the importance of considering clinical significance. Treatment decisions must weigh the effect of untreated maternal depression against the potential adverse effects of antidepressant exposure."


Category: Maternal Fetal Medicine


Category: SOGC Members


**CONCLUSIONS:** "Patient experiences acquired via the internet and social media appear destined to become of major value to the public, to healthcare organisations and possibly also to regulatory bodies. While we believe they are unlikely to supplant more traditional patient surveys, they will certainly complement them, and should help identify poor care and outstanding care. Thus, in 10 years, the question may not be how to use such data, but how we ever lived without them."


Category: Patient Safety; Technology


CONCLUSIONS: “Coffee, but not caffeine, consumption was associated with marginally increased gestational length but not with spontaneous PTD risk. Caffeine intake was consistently associated with decreased BW and increased odds of SGA. The association was strengthened by concordant results for caffeine sources, time of survey and different SGA definitions. This might have clinical implications as even caffeine consumption below the recommended maximum (200 mg/day in the Nordic countries and USA, 300 mg/day according to the World Health Organization (WHO)) was associated with increased risk for SGA.”

N.B. Highly accessed


See http://plus.mcmaster.ca/evidenceupdates/ for McMaster Online Rating of Evidence (MORE) ratings and comments (available with free registration)


CONCLUSIONS: “A single-item question on sexual bother is strongly predictive of potentially distressing sexual problems in the WSW. A number of health and social factors are associated with risk of sexual problems in the WSW. Assessment of sexual well-being in the WSW is a priority for practicing healthcare providers.”


CONCLUSION: “Concerns about safety and toxicity from the use of magnesium sulfate should be mitigated by findings from this integrative review, which indicates a low incidence of the most severe side effects, documented in studies that used a wide variety of standard and modified drug regimens. Adverse effects of
concern to providers occur infrequently, and when they occurred, a delay of repeat administration was generally sufficient to mitigate the effect. Early screening and diagnosis of the disease, appropriate treatment with proven drugs, and reasonable vigilance for women under treatment should be adopted as global policy and practice."


**Category:** International Women's Health; Maternal Fetal Medicine


**CONCLUSIONS:** “To increase use of health facilities in Ouargaye and Diapaga, the empowerment of women could be helpful as well as exemption of fees or cost sharing for care.”


**Category:** International Women's Health


**CONCLUSIONS:** “Substantial gaps exist in the availability of essential childbirth-related health technologies across health sector levels in Africa and Asia. Strategies that facilitate reliable access to vital health technologies in these regions are an urgent priority.”

N.B. Highly accessed


**Category:** International Women's Health


…”there has been insufficient recognition of the complexity attached to interpreting such evidence and translating it into action. In this paper, a randomized controlled trial is used as an illustrative case study to uncover layers of that complexity.”


**Category:** Methodology


**CONCLUSIONS:** “Metformin is an effective alternative to insulin in the treatment of GDM patients. Serum fructosamine may help in predicting the adequacy of metformin treatment alone.”

See [http://plus.mcmaster.ca/evidenceupdates/](http://plus.mcmaster.ca/evidenceupdates/) for McMaster Online Rating of Evidence (MORE) ratings and comments (available with free registration)


**SUMMARY:** “Suppliers of medical information and features need to join the open source movement and must make use of standardized medical information formats, in order to allow third parties to create valuable, mobile gateway apps. This can prevent the occurrence of health app overload. By going along in these trends, we can make health apps achieve the impact on healthcare quality and citizens’ health many of us envision.”

N.B. Highly accessed


...“In a special supplement that accompanies this issue, we present the evidence reviews underpinning 10 of the 41 PSSs studied in the new report. These strategies include interventions to reduce diagnostic errors (15), in-facility falls (16), pressure ulcers (17), and delirium (18); efforts initiated in hospitals to improve care transitions (19) and medication reconciliation (20); interventions in inpatient settings to promote a patient safety culture or climate (21); implementation of rapid-response systems (22); examination of the effect of nurse-patient staffing on patient outcomes (23); and use of simulation exercises to improve patient safety (24). The supplement also includes an overview article that describes the entire reexamination process and identifies 10 strongly encouraged and 12 encouraged PSSs that are ready for adoption now (25).”


...“Within these limits, evidence suggests that interventions can improve perceptions of safety culture and potentially reduce patient harm.”

CRITICAL APPRAISAL: [http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?AccessionNumber=12013013333](http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?AccessionNumber=12013013333)


**AUTHORS’ CONCLUSIONS:** “There was no evidence from the seven trials that plastic adhesive drapes reduce surgical site infection rates, and some evidence that they increase infection rates. Further trials may be justified, using blinded outcome assessment to examine the effect of adhesive drapes on surgical site infection, based on different wound classifications.”

See [http://plus.mcmaster.ca/evidenceupdates/](http://plus.mcmaster.ca/evidenceupdates/) for McMaster Online Rating of Evidence (MORE) ratings and comments (*available with free registration*)

**SUMMARY:** “While ITT may achieve statistical purity, it frequently fails to address the true clinical or patient's perspective. Though more complex and potentially beset by problems of their own, alternative methods of result presentation may better serve the latter aim. Each of the other methods may rely on untestable assumptions and therefore it is wisest that study results are presented in multiple formats to allow for informed reader evaluation.”

**Category:** Infectious Disease


**AUTHORS’ CONCLUSIONS:** “For transcervical CVS, although there is some evidence to support the use of small forceps instead of cannulae, the evidence is not strong enough to support change in practice for clinicians who have become familiar with a particular technique. For transabdominal CVS, based on current evidence, there is no difference in clinically important outcomes with the use of a continuous compared with a discontinuous negative pressure needle aspiration system.”

**Category:** Methodology


**AUTHORS’ CONCLUSIONS:** “The limited available data do not provide convincing evidence that feeding preterm infants with multinutrient fortified breast milk compared with unfortified breast milk following hospital discharge affects important outcomes including growth rates during infancy. There are no data on long-term growth. Since fortifying breast milk for infants fed directly from the breast is logistically difficult and has the potential to interfere with breast feeding, it is important to determine if mothers would support further trials of this intervention.”

See [http://plus.mcmaster.ca/evidenceupdates/](http://plus.mcmaster.ca/evidenceupdates/) for McMaster Online Rating of Evidence (MORE) ratings and comments (available with free registration)

**Category:** Paediatrics