Giants in Obstetrics and Gynecology Series: a profile of Robert L. Goldenberg, MD
Robert Romero

Expert Reviews

Expert review: prevention of obstetrical venous thromboembolism
Alexander M. Friedman; Mary E. D’Alton
Trends in increasing venous thromboembolism mortality in the United States should be expected to continue absent improved prophylaxis.

Systematic Reviews

Primary cytoreductive surgery for advanced stage endometrial cancer: a systematic review and meta-analysis
Benjamin B. Albright; Karen A. Monuszko; Samantha J. Kaplan; Brittany A. Davidson; Haley A. Moss; Allan B. Huang; Alexander Melamed; Jason D. Wright; Laura J. Havrilesky; Rebecca A. Previs
In a meta-analysis of primary cytoreductive surgery for advanced stage endometrial cancer, suboptimal cytoreduction is common and associated with worse progression-free and overall survival rates.

Intravenous oxytocin dosing regimens for postpartum hemorrhage prevention following cesarean delivery: a systematic review and meta-analysis
Laura C. Phung; Elise K. Farrington; Mairead Connolly; Alyce N. Wilson; Brendan Carvalho; Caroline S. E. Homer; Joshua P. Vogel
Bolus plus infusion regimens with a bolus of <5 IU may be the preferred oxytocin dosing regimen for preventing PPH following cesarean delivery, although more research is needed.

(continued)
CLINICAL OPINION

264 Medical and mental health implications of gestational surrogacy
Annie Yau; Rachel L. Friedlander; Allison Petrini; Mary Catherine Holt; Darrell E. White II; Joseph Shin; Sital Kalantry; Steven Spandorfer

Gestational surrogacy is safe as long as rigorous screening and medical, psychological, and social supports are equitably provided.

ORIGINAL RESEARCH

Articles abstracted in this issue appear in full at ajog.org

GYNECOLOGY

270 Long-term follow-up of endometriosis surgery in Ontario: a population-based cohort study
Olga Bougie; Chad McClintock; Jessica Pudwell; Susan B. Brogley; Maria P. Velez

Although only a few endometriosis patients who undergo hysterectomy require repeat surgery, 1 in 4 who undergo minor, and 1 in 5 who undergo major conservative surgery require reoperation for endometriosis.

272 Current prescribing practices and guideline concordance for the treatment of uncomplicated urinary tract infections in women
Joanna L. Langner; Kim F. Chiang; Randall S. Stafford

Current prescribing practices for antibiotic treatment of uncomplicated urinary tract infections are significantly discordant with the Infectious Diseases Society of America clinical practice guidelines.

274 Tamsulosin vs placebo to prevent postoperative urinary retention following female pelvic reconstructive surgery: a multicenter randomized controlled trial
Graham C. Chapman; David Sheyn; Emily A. Slopnick; Kasey Roberts; Sherif A. El-Nashar; Joseph W. Henderson; Jeffrey Mangel; Adonis K. Hijaz; Robert R. Pollard; Sangeeta T. Mahajan

Perioperative tamsulosin use was associated with lower rates of postoperative urinary retention after surgery for pelvic organ prolapse.

276 Neurodevelopmental outcomes of preterm infants conceived by assisted reproductive technology
Smita Roychoudhury; Abhay Lodha; Anne Synnes; Ayman Abou Mehrem; Roderick Canning; Rudaina Banihani; Marc Beltempo; Katherine Theriault; Junmin Yang; Prakash S. Shah; Amuchou S. Soraisham; On behalf of the Canadian Neonatal Network, Canadian Preterm Birth Network, and Canadian Neonatal Follow-Up Network Investigators

Assisted reproductive technology was associated with lower odds of neurodevelopmental impairment and composite outcome of mortality or neurodevelopmental impairment at 18 to 24 months’ corrected age among preterm infants.
ORIGINAL RESEARCH (continued)

278 The IMPROving Primary Screening And Colposcopy Triage trial: human papillomavirus, cervical cytology, and histopathologic results from the baseline and 1-year follow-up phase
Mahboobeh Safaeian; Thomas C. Wright Jr; Mark H. Stoler; James Ranger-Moore; Susanne Rehm; Shagufta Aslam; Qijun Fang; Patrick Volkir; Ruediger Ridder
The demographics, human papillomavirus prevalence, cervical cytology, and cervical histopathology outcomes from this large (approximately 35,000 women in the United States), prospective registrational trial of the high-throughput cobas HPV assay demonstrate that the population is representative of a routine cervical cancer screening population in the United States, and provide these important benchmarks for healthcare policy, laboratories, and clinicians.

280 Metabolic syndrome in obesity: treatment success and adverse pregnancy outcomes with ovulation induction in polycystic ovary syndrome
Sushila Arya; Karl R. Hansen; Jennifer D. Peck; Robert A. Wild; On behalf of the National Institute of Child Health and Human Development Reproductive Medicine Network
Metabolic syndrome affects the rates of live birth and pregnancy complications differently for women with polycystic ovary syndrome after treatment using letrozole or clomiphene citrate for ovulation induction.

283 Single oral dose of vitamin D3 supplementation prior to in vitro fertilization and embryo transfer in normal weight women: the SUNDRO randomized controlled trial
Edgardo Somigliana; Veronica Sarais; Marco Reschini; Stefania Ferrari; Sofia Makieva; Greta Chiara Cermisoni; Alessio Paffoni; Enrico Papaleo; Paola Vigano
In women undergoing in vitro fertilization, a single oral dose of 600,000 IU of vitamin D3 does not improve the rates of clinical pregnancy.

285 Embryo biopsy and maternal and neonatal outcomes following cryopreserved-thawed single embryo transfer
Cynthia K. Sites; Sophia Bachilova; Daksha Gopal; Howard J. Cabral; Charles C. Coddington; Judy E. Stern
Embryo biopsy for preimplantation genetic testing does not increase the odds for adverse maternal or neonatal outcomes after cryopreserved single embryo transfer.

287 The association between prior cesarean delivery and subsequent in vitro fertilization outcomes in women undergoing autologous, frozen-thawed single euploid embryo transfer
Jenna Friedenthal; Tamar Alkon-Meadows; Carlos Hernandez-Nieto; Dmitry Gounko; Joseph A. Lee; Alan Copperman; Erkan Buyuk
Previous cesarean delivery is associated with decreased fertility and lower success rates following single euploid embryo transfer during in vitro fertilization. (continued)
Preeclampsia and COVID-19: results from the INTERCOVID prospective longitudinal study
Aris T. Papageorghiou; Philippe Deruelle; Robert B. Gunier; Stephen Rauch; Perla K. Garcia-May; Mohak Mhatre; Mustapha Ado Usman; Sherief Abd-Elsalam; Saturday Etuk; Lavone E. Simmons; Raffaele Napolitano; Sonia Deantonio; Becky Liu; Federico Prefumo; Valeria Savasi; Maryne Silve do Vale; Eric Baafi; Ghulam Zainab; Ricardo Nieto; Nerea Maiz; Muhammad Baffah Aminu; Adele Winsey; Gabriela Tavchioska; Babagana Bako; Daniel Oros; Albertina Rege; Anne Caroline Benaki; Fatimah Hassan-Hanga; Monica Savorani; Francesca Giuliani; Loic Sentilhes; Milagros Risso; Ken Takahashi; Carmen Vecchiarelli; Satoru Ikenoue; Ramachandran Thiruvengadam; Constanza P. Soto Conti; Enrico Ferrazzi; Irene Cetin; Vincent Bizzor Nachinab; Ernawati Ernawati; Eduardo A. Dur; Alexey Kholid; Michelle L. Firlit; Sarah Rae Easter; Joanna Sichitii; Abimbola Bowale; Roberto Casale; Rosa Maria Cerbo; Paolo Ivo Cavour; Brenda Eskenazi; Jim G. Thornton; Zulfiqar A. Bhutta; Stephen H. Kennedy; Jose Villar
COVID-19 in pregnancy and preeclampsia are independently associated. Both conditions are associated in an additive fashion with increased maternal and neonatal morbidity and mortality.

The “rail sign”: an ultrasound finding in placenta accreta spectrum indicating deep villous invasion and adverse outcomes
Jin-Chung Shih; Jessica Kang; Shang-Jie Tsai; Jen-Kuang Lee; Kao-Lang Liu; Kuan-Ying Huang
The “rail sign,” seen during color Doppler sonography, is associated with the severe forms of the placenta accreta spectrum and adverse outcomes.

Refining the clinical definition of active phase arrest of dilation in nulliparous women to consider degree of cervical dilation as well as duration of arrest
Tetsuya Kawakita; Stacey L. Gold; Jim C. Huang; Sara N. Iqbal
The effects of active phase arrest on maternal and fetal outcomes depend on both duration of the arrest and degree of cervical dilation.

Novel insights from fetal and placental phenotyping in 3 mouse models of Down syndrome
April D. Adams; Victoria Hoffmann; Laura Koehly; Faycal Guedj; Diana W. Bianchi
Different mouse models of Down syndrome demonstrate variable phenotypes. Our data provided novel insights into embryonic and placental pathology in commonly studied strains.

Pregnancy outcomes in women with chronic kidney disease and chronic hypertension: a National cohort study
Sukainah Y. Al Khalaf; Elis J. O’Reilly; Fergus P. McCarthy; Marius Kublickas; Karolina Kublickiene; Ali S. Khashan
Women with chronic kidney disease, chronic hypertension, or both conditions are at an increased risk of adverse pregnancy outcomes, which were independent of maternal age, body mass index, and parity.
Pregnancy alters interleukin-1 beta expression and antiviral antibody responses during severe acute respiratory syndrome coronavirus 2 infection

Morgan L. Sherer; Jun Lei; Patrick S. Creisher; Minyoung Jang; Ramya Reddy; Kristin Voegtline; Sarah Olson; Kirsten Littlefield; Han-Sol Park; Rebecca L. Ursin; Abhinaya Ganesan; Theresa Boyer; Nada Elsayed; Diane M. Brown; Samantha N. Walch; Annukka A. R. Antar; Yukari C. Manabe; Kimberly Jones-Beatty; William Christopher Golden; Andrew J. Satin; Jeanne S. Sheffield; Andrew Pekosz; Sabra L. Klein; Irina Burd

Pregnant women exhibit an early inflammatory response and a reduced antiviral antibody response to severe acute respiratory syndrome coronavirus 2 compared with nonpregnant women.

Coronavirus disease 2019 vaccine response in pregnant and lactating women: a cohort study

Kathryn J. Gray; Evan A. Bordt; Caroline Atyeo; Elizabeth Deriso; Babatunde Akinwunmi; Nicola Young; Aranxta Medina Baez; Lydia L. Shook; Dana Cyvk; Kaitlyn James; Rose De Guzman; Sara Brigida; Khady Diouf; Ilona Goldfarb; Lisa M. Bebell; Lael M. Yonker; Alessio Fasano; S. Alireza Rabi; Michal A. Elovitz; Galit Alter; Andrea G. Edlow

COVID-19 vaccination confers a robust humoral response in pregnant and lactating women and immune transfer to neonates via placenta and breastmilk.

Angiogenic markers and their longitudinal change for predicting adverse outcomes in pregnant women with chronic hypertension

Julia Binder; Erkan Kalafat; Pilar Palmrich; Petra Pateisky; Asma Khalil

Compared with conventional clinical methods, the longitudinal assessment of angiogenic markers is superior in predicting adverse maternal and perinatal outcomes in women with chronic hypertension suspected to have superimposed preeclampsia.

Placental growth factor testing in the management of late preterm preeclampsia without severe features: a multicenter, randomized, controlled trial

Anna Peguero; Ignacio Hererra; Alfredo Perales; Juan Carlos Melchor; Íñigo Melchor; Beatriz Marcos; Cecilia Villalain; Raigam Martinez-Portilla; Edurne Mazarico; Eva Meler; Sandra Hernandez; Isabel Matas; Maria del Rio; Alberto Galindo; Francesc Figueras

In nonsevere preeclampsia after 34 weeks' gestation, a selective planned delivery based on maternal PlGF levels leads to a reduction in the progression to severe features and reduces maternal complications without increasing neonatal morbidity.

Vindicating a traduced genius: Ignaz Philipp Semmelweis (1818–1865)

Nicholas Kadar

Attacks on Semmelweis's character and education are critically reviewed. A reexamination of the work and legacy of Ignaz Philipp Semmelweis (1818–1865).

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**MEETING PAPERS**

**Selected papers from the 41st Annual Meeting (The Pregnancy Meeting) of the Society for Maternal-Fetal Medicine**

**325** Effectiveness of *Chlamydia trachomatis* expedited partner therapy in pregnancy

Amanda C. Zofkie; Yevgenia Y. Fomina; Scott W. Roberts; Donald D. McIntire; David B. Nelson; Emily H. Adhikari

The implementation of a prenatal expedited partner therapy program for chlamydia did not significantly improve the reinfection or no-cure rates before delivery.

**327** Two-port, exteriorized uterus, fetoscopic meningomyelocele closure has fewer adverse neonatal outcomes than open hysterotomy closure

Jimmy Espinoza; Alireza A. Shamshirsaz; Magdalena Sanz Cortes; Mohan Pammi; Ahmed A. Nassr; Roopali Donepudi; William E. Whitehead; Jonathan Castillo; Rebecca Johnson; Nazli Meshinchi; Raphael Sun; Eyal Krispin; Romain Corroenne; Timothy C. Lee; Sudeep G. Keswani; Alice King; Michael A. Belfort

In utero meningomyelocele closure using a 2-port, exteriorized uterus, fetoscopic approach is associated with fewer adverse neonatal outcomes than open hysterotomy closure.

**329** Factors associated with appropriate treatment of acute-onset severe obstetrical hypertension

Uma S. Deshmukh; Lisbet S. Lundsberg; Jennifer F. Culhane; Caitlin Partridge; Uma M. Reddy; Audrey A. Merriam; Moeun Son

Treatment for severe obstetrical hypertension emergencies occurred more frequently for women with preterm gestations or those of Black or Hispanic race and less frequently for emergencies that occurred during the overnight and postpartum period.

**331** Long and short interpregnancy intervals increase severe maternal morbidity

Bharti Garg; Blair Darney; Rachel A. Pilliod; Aaron B. Caughey

Women with both short and long interpregnancy intervals have an increased risk of severe maternal morbidity.

**333** The yield of chromosomal microarray in pregnancies with congenital cardiac defects and normal noninvasive prenatal screening

Lena Sagi-Dain; Amihood Singer; Reeval Segel; Rachel Berger; Bibi Kanengiser-Pines; Idit Maya

The residual risk of clinically significant chromosomal microarray results in pregnancies with fetuses with congenital heart defects following normal noninvasive prenatal screening is higher than those in pregnancies with normal ultrasound.

**335** Clinical effectiveness of adding azithromycin to antimicrobial prophylaxis for cesarean delivery

Stephanie L. Pierce; Courtney M. Bisson; Molly E. Dubois; Sarah B. Grimes; Mikaela S. Katz; Mary M. Weed; Sabrina N. Wyatt; Erin K. Eckart; Jennifer D. Peck; Rodney K. Edwards

Expanded preoperative antibiotic prophylaxis for cesarean delivery may have a smaller effect size than expected based on previous trials.
IMAGES IN GYNECOLOGY

337 Vaginal dermoid cyst
Rene MacKinnon; Kristen Elmezzi; Neil Phippen
A variety of radiographic and histopathologic images representing a rare vaginal dermoid cyst.

SURGEON’S CORNER

339 Internal iliac artery ligation—a contemporary simplified approach
Ari P. Sanders; Sebastian R. Hobson; Anna Kobylanski; Jessica Papillon Smith; Lisa Allen; Rory Windrim; John Kingdom; Ally Murji
Because of limited retroperitoneal dissection, we demonstrated a simplified approach to internal iliac artery ligation that is safe and efficient.

RESEARCH LETTERS

341 What test did I have? Patient uncertainty about prenatal genetic screening
Christian M. Parobek; Phinnara Has; Paula Lorenzi; Melissa L. Russo; Melissa A. Clark; Adam K. Lewkowitz

343 Insurance expansion and intrauterine device training in obstetrics and gynecology
Caitlin Dane; Janis L. Breeze; Eve Espey; Nikki Zite; Tony Ogburn; Megan L. Evans

344 Medication or surgical abortion? An exploratory study of patient decision making on a popular social media platform
Laura Jacques; Emma Carpenter; Taryn Valley; Barbara Alvarez; Jenny Higgins

347 Impact of the COVID-19 pandemic on preterm birth and stillbirth: a nationwide, population-based retrospective cohort study
Emmanuel Simon; Jonathan Cottenet; Anne-Sophie Mariet; Sonia Bechaoui-Quantin; Patrick Rozenberg; Jean-Bernard Gouyon; Catherine Quantin

LETTERS TO THE EDITORS

349 Origins of the “great” obstetric and gynecologic syndromes
Ling Cui; M. J. Quinn; Hui Juan Zhang

350 Is there an optimal gestational age for cell-free DNA testing in maternal obesity?
Li Zhen; Dong-Zhi Li

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Maeve K. Hopkins; Nathanael Koelper; Samantha Caldwell; Brittany Dyr; Lorraine Dugoff
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Jan Broz; Klára Brožová
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Maria J. Picón-César; María Molina-Vega; Stella González-Romero

353 Placental histopathological changes in COVID-19 in term patients admitted to labor and delivery
Mohd Faizal Bin Ahmad; Srijit Das
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Elizabeth T. Patberg; Anthony M. Vintzileos; Poonam Khullar

355 Professionally responsible COVID-19 vaccination counseling—response to Chervenak et al
Marwan Habiba
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Frank A. Chervenak; Laurence B. McCullough; Eran Bornstein; Lisa Johnson; Adi Katz; Renee McLeod-Sordjan; Michael Nimaroff; Burton L. Rochelson; Asma Tekbali; Ashley Warman; Kim Williams; Amos Grunebaum

SOCIETY FOR MATERNAL–FETAL MEDICINE

Society for Maternal-Fetal Medicine (SMFM)
This executive summary reviews the main outcomes of the workshop on preeclampsia held virtually on January 25–26, 2021, cosponsored by the Society for Maternal-Fetal Medicine and the Preeclampsia Foundation.

B8 Society for Maternal-Fetal Medicine Consult Series #56: Hepatitis C in pregnancy—updated guidelines: Replaces Consult Number 43, November 2017
Society for Maternal-Fetal Medicine (SMFM); Sarah K. Dotters-Katz; Jeffrey A. Kuller; Brenna L. Hughes
This Consult reviews the current literature on hepatitis C in pregnancy and provides recommendations based on the available evidence.

CORRECTION

336 January 2021 (vol. 224, no. 1, pages 62.e1 and 62.e13)
The misspelling of the surname of a coauthor of a January 2021 original research article on management of the genitourinary syndrome of menopause is corrected.

RECRUITMENT & EMPLOYMENT OPPORTUNITIES

29A Classified advertising