

UC Davis

UC Davis Previously Published Works

Title

Management of Severe Range Blood Pressures During Obstetrical Care

Permalink

<https://escholarship.org/uc/item/1v90w6tn>

Journal

Obstetrics and Gynecology, 129(&NA;)

ISSN

1099-3630

Authors

Piazza, Adriana
Sienas, Laura
Wolfe, Kristen
[et al.](#)

Publication Date

2017-05-01

DOI

10.1097/01.aog.0000514634.31032.39

Peer reviewed

Financial Disclosure: The authors did not report any potential conflicts of interest.

Editor's Note: Poster no. 39K was withdrawn during production.

10:30 AM–11:30 AM

OBSTETRICS

Iron Deficiency Anemia in Pregnancy and Treatment Options: A Patient-Preference Study [1L]

Vanessa Nguyen

Royal College of Surgeons in Ireland, Dublin, Ireland, Toronto, Ontario, Canada

Danielle Wuebbolt, Hannah Thomas, Kellie Murphy, MD, MSc, and Rohan D'Souza, MD, MSc, MRCOG

INTRODUCTION: As many as 17% of Canadian women suffer from iron deficiency anemia (IDA) in pregnancy. Treatment options include oral ferrous salts, haem iron, intravenous (IV) iron and blood transfusions. Trade-offs pregnant women are willing to make to alleviate symptoms of IDA have not been determined. This study elicits preferences of pregnant women for health-states arising from IDA and the use of various treatment options.

METHODS: A cross-sectional study was conducted on pregnant women with and without IDA. Participants were presented with five vignettes representing maternal health-states arising from IDA in pregnancy. They were asked to rank these states and assign them values on a visual analogue scale, by the standard gamble, and by time trade-off methods. Utility values (preferences) of women with and without IDA, obtained from these methods were presented on a scale of 0-100 where 0 represented death and 100 represented perfect health.

RESULTS: 60 pregnant women (30 with IDA and 30 without) completed the interviews. With all three methods, utility values were lowest for blood transfusion and highest for oral iron. Regardless of the evaluation method, there was no difference in utility values for treatment with oral ferrous salts vs. haem iron or between women with or without IDA.

CONCLUSION: Women acknowledge that symptoms of IDA in pregnancy reduce quality of life. Despite side effects and frequency of administration, oral iron is preferred over IV iron and blood transfusion. Confirmation of these findings in larger studies would directly inform clinical practice and research.

Financial Disclosure: The authors did not report any potential conflicts of interest.

Low Back Pain in Pregnancy—Investigations, Management, and the Role of Neuraxial Analgesia: A Narrative Review [2L]

Herman Sehmbi, MD

University Health Network, Toronto, Toronto, Ontario, Canada
Rohan D'Souza, MD, MSc, MRCOG, Kellie Murphy, MD, MSc, and Anuj Bhatia, MD

INTRODUCTION: Low back pain (LBP) is common in pregnancy affecting approximately 50% of pregnant women. Yet, there is much ambiguity with regard to the diagnostic work-up and management of pregnant women with LBP. This narrative review summarizes evidence surrounding investigations, management strategies and the considerations around performing neuraxial blocks for pregnant women with LBP to inform clinical practice.

METHODS: MEDLINE, MEDLINE In-Process and Embase were searched from inception to November 2015. The search was limited to humans and restricted to the English language. All studies from case reports to randomized controlled trials describing diagnostic modalities, management strategies and use of neuraxial techniques during labor and delivery in pregnant women with LBP were identified.

RESULTS: A total of 6803 records were identified through database-searching and 60 through citation-tracking, of which 77 studies were included. Of these, 32 described the use of diagnostic modalities, 56

described management strategies, and three reported the use of neuraxial techniques for labor and delivery. Magnetic resonance imaging is the safest diagnostic modality for LBP in pregnancy. Antenatal educational programs, exercise and steroid injections into the epidural space or sacroiliac joints may help with pain management. Worsening neurological deficits, vertebral fractures, and tumors may need surgical management. There is limited evidence on challenges of performing neuraxial blocks in the peripartum period but there is a potential for increased risk of neurological complications in parturients with pre-existing neurological deficits.

CONCLUSION: This review summarizes the available evidence and provides a clinical algorithm for the diagnosis and management of pregnant women with LBP.

Financial Disclosure: The authors did not report any potential conflicts of interest.

Management of Severe Range Blood Pressures During Obstetrical Care: A Quality Improvement Project [3L]

Adriana Piazza, MD

University of California Davis, Sacramento, CA

Laura Sienas, MD, Kristen Wolfe, MD, Melaney Stricklin, MSN, RNC-OB, CCE, and Mitchell Creinin, MD

INTRODUCTION: Hypertensive disorders of pregnancy are a leading cause of maternal and neonatal morbidity and mortality. Timeliness of treatment improves maternal and neonatal outcomes. This study assesses the impact of implementing a program for severe range blood pressure (SRBP) management during inpatient obstetrical care.

METHODS: We prospectively collected data from a single academic center during 2015-2016 comparing outcomes before and after a system change. The changes included 1) an algorithm to improve blood pressure (BP) recheck times (for validating SRBP) and time to intravenous medication when indicated; 2) improved medication access making all medications equally available; and 3) multidisciplinary training including simulation sessions. All patients with ICD-10 codes of pregnancy-related hypertensive disorders who had SRBP were evaluated over a three-month period before and after program implementation. SRBP treatment included intravenous labetalol or hydralazine or oral nifedipine. Primary endpoints compared time to BP recheck, time to medication when indicated and type of medication.

RESULTS: More women had a BP recheck within one hour post-implementation (330/344, 95.9%) vs. pre-implementation (390/425, 91.7%) (P=.0025). A similar improvement occurred when evaluating BP recheck within 10 minutes (60.5% vs. 40.0%, respectively, P=.0001). For the 113 post-implementation and 89 pre-implementation SRBP events requiring treatment, time to medication did not improve (median 13 and 14 minutes, respectively, P=.40). Use of labetalol vs. hydralazine post-implementation increased from 13.3% to 38.1% (P=.0001); nifedipine was rarely used (1 and 3 patients, respectively).

CONCLUSION: Implementation of an algorithm to treat SRBP can improve BP recheck rates and impact choice of intravenous medications.

Financial Disclosure: The authors did not report any potential conflicts of interest.

The Effect of Hypertensive Disorders in Pregnancy on Preterm Birth Rates Among African-American Women [4L]

Ashish Premkumar, MD

University of California, San Francisco, San Francisco, CA

Rebecca J. Baer, MPH, Laura L. Jelliffe-Pawlowski, PhD, MS, and Mary E. Norton, MD

INTRODUCTION: To investigate the role gestational and chronic hypertension (HTN) play in rates of preterm birth (PTB) among African-American women.

METHODS: The study population was drawn from singleton, non-anomalous live births delivered between 20 and 44 weeks' among African-American Women from 2007-2011 in the birth cohort file main-

