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831 Are we triaging effectively? likelihood of preterm delivery following triage discharge versus antepartum admission

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### 830 Risk of chorioamnionitis following intrauterine pressure catheter placement in laboring patients

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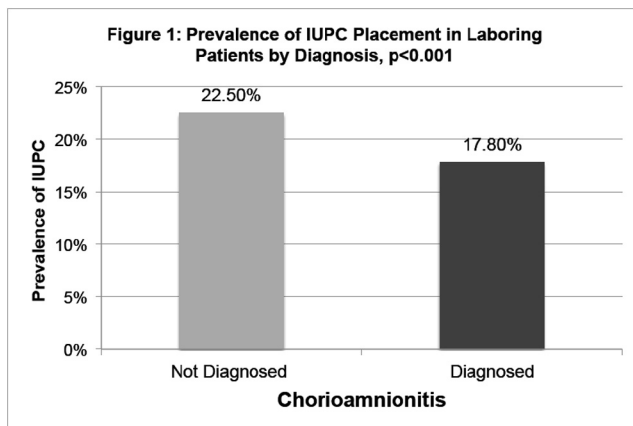
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**OBJECTIVE:** Intrauterine Pressure Catheters (IUPC) are thought to create a pathway for contamination and ascending infections. We sought to estimate the risk of chorioamnionitis associated with IUPC use in term labor.

**STUDY DESIGN:** This is a retrospective cohort study of term ( $\geq 37$  weeks), singleton pregnancies who labored at our tertiary care center from 2005 to 2018. The primary outcome of chorioamnionitis was defined as maternal intrapartum fever (single oral temperature of  $>39^{\circ}\text{C}$  or  $38-38.9^{\circ}\text{C}$  for 30 minutes) and one or more of the following: maternal leukocytosis, purulent cervical drainage, or fetal tachycardia. The primary exposure was the presence of an IUPC documented in the medical record. Cox proportional hazard regression was used to model the effect of cervical examinations on the risk of chorioamnionitis while adjusting for adjusted for number of cervical exams, epidural use, meconium, smoking, GBS, parity, BMI, duration of rupture, labor induction and cesarean section.

**RESULTS:** 20,579 women met inclusion criteria and 1,039 (5%) women were diagnosed with chorioamnionitis. Of the subjects diagnosed with chorioamnionitis, 185 (17.8%) had IUPCs compared to 22.5% in women not diagnosed with infection ( $p < 0.001$ ). IUPCs were not associated with increased rate of chorioamnionitis after adjusting for potential confounders (hazard ratio [HR] 0.6, 95% confidence interval [CI] 0.5-0.7;  $p < 0.001$ ). Presence of IUPCs was higher in women undergoing unplanned cesarean delivery (30.6% versus 21.1% in women undergoing vaginal delivery,  $p < 0.001$ ). Meconium rates were not higher in women with IUPCs (IUPC 20.0% versus no IUPC 18.8  $p = 0.06$ )

**CONCLUSION:** In contrast to prior work, routine use of internal monitoring in laboring patient did not increase the risk of chorioamnionitis. Internal monitors should not be avoided during term labor management.



### 831 Are we triaging effectively? likelihood of preterm delivery following triage discharge versus antepartum admission

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**OBJECTIVE:** To compare delivery timing between patients with clinical signs or symptoms of preterm labor evaluated in our triage and antepartum units.

**STUDY DESIGN:** A retrospective cohort study of singleton gestations seen for preterm labor concerns between 22w0d and 33w6d who delivered at our institution from 7/1/15 – 6/30/16. Triage visits and antepartum admissions were examined for: 1) symptomatic patients with clinical findings (transvaginal cervical length  $< 2.5$  cm or cervical dilation  $> 2$  cm), 2) asymptomatic patients with clinical findings, and 3) symptomatic patients without clinical findings. Primary outcomes were preterm delivery ( $< 37w0d$ ) and time from presentation to delivery, assessed using Fisher's exact test.

**RESULTS:** 491 hospital encounters for 371 patients met inclusion criteria. Patients were symptomatic without clinical findings in 65% of encounters, symptomatic with clinical findings in 24%, and asymptomatic with clinical findings in 11%. Of these, 70% were triaged and 30% were admitted. Symptomatic patients with clinical findings were more likely to deliver preterm (54%) than those who were asymptomatic with clinical findings (36%) or symptomatic without clinical findings (17%,  $p < 0.0001$ ). Admitted patients were more likely to deliver preterm than those triaged home. For example, among symptomatic patients with clinical findings, 62% of admissions delivered preterm versus 14% of triage discharges ( $p < 0.0001$ ). More specifically, 21% of admissions delivered within 48 hours (0% triage), 30% within 1 week (0% triage), and 43% within 1 month (8% triage).

**CONCLUSION:** A combination of symptoms and clinical findings suggestive of preterm labor were most predictive of preterm delivery. Our institution was relatively accurate in determining which patients were likely to deliver preterm, as evidenced by how frequently antepartum admissions delivered within 1 month of evaluation relative to triage discharges. However, additional insight is needed into which patients with preterm labor symptoms and clinical findings most benefit from intervention, as over 46% still delivered at term.

### 832 Does BMI influence the impact of an educational video module on gestational weight gain?

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**OBJECTIVE:** Approximately 70% of patients do not gain appropriate weight during pregnancy, and almost one third of women receive no counseling about gestational weight gain (GWG). Overweight and obese patients have the highest prevalence of excessive GWG. We aim to see if use of a video module will impact GWG differently among different BMI categories.

**STUDY DESIGN:** This was an IRB-approved, prospective cohort study conducted from February-October 2019. Patients were recruited from a large academic practice during their first trimester of pregnancy. Group 1 were patients in the control cohort and received routine care, while, group 2 were in the intervention cohort and



watched the 5-minute GWG video module. Patients were included if they were  $\geq 18$  years old and had a singleton intrauterine pregnancy. Patients were excluded if they were non-English speaking, had a fetus with a known anomaly and/or demise, or if they had a documented eating disorder. Pre-pregnancy weight was recorded for all. On admission to the hospital for delivery, all patients' GWG was calculated. Patients were stratified by their pre-pregnancy BMI, and the percentage of patients who gained the appropriate amount of weight was calculated for each BMI class, in each group. T-tests and Mann-Whitney U tests were used to compare groups, with a value of  $p < 0.05$  statistically significant.

**RESULTS:** 155 patients were recruited, with 79 in group 1 and 76 in group 2 (Table 1). 3 and 7 patients were lost from groups 1 and 2, respectively, due to transfer of care or pregnancy loss. The first group ( $n=76$ ) showed a difference in the percentage of patients who had the appropriate GWG, with overweight patients being significantly less likely to gain appropriately as compared to the other BMI groups ( $p=0.007$ ). In the second group ( $n=69$ ), there was no significant difference in the percentage of patients with the appropriate GWG based on BMI. In overweight women only, 8.30% of patients in group 1 gained appropriately, as compared to 30.40% of patients in group 2 ( $p=0.216$ ), Table 2.

**CONCLUSION:** A video module can potentially improve GWG among overweight patients.

	Group 1 n=79	Group 2 n=76	p-value
<b>Race n (%)</b>			0.06
Caucasian	44 (55.7)	51 (67.1)	
Black	4 (5.1)	10 (13.2)	
Asian	7 (8.9)	3 (3.9)	
Hispanic	20 (25.3)	11 (14.5)	
Other	4 (5.1)	1 (1.3)	
<b>Education</b>			0.016
<High school	5 (6.3)	2 (2.6)	
High school	32 (40.5)	15 (19.7)	
College	22 (27.8)	33 (43.4)	
Graduate school	20 (25.3)	26 (34.2)	
<b>Marital Status</b>			0.532
Single	28 (36.4)	24 (31.6)	
Married	49 (63.6)	52 (68.4)	
<b>Income (U.S. Dollars)</b>			0.725
<30k	16 (20.8)	11 (14.9)	
30-50k	15 (19.5)	12 (16.2)	
50-80k	13 (16.9)	16 (21.6)	
80-100k	7 (9.1)	10 (13.5)	
>100k	26 (33.8)	25 (33.8)	
<b>Insurance</b>			0.206
None	1 (1.3)	0 (0)	
Medicaid/Medicare	39 (49.4)	29 (38.2)	
Private	39 (49.4)	47 (61.8)	
<b>Provider</b>			0.034
Residents	15 (19)	4 (5)	
General Obstetricians	22 (28)	16 (22)	
Maternal-Fetal Medicine	14 (18)	18 (24)	
Certified Nurse Midwives	28 (35)	36 (49)	
<b>Pre-Pregnancy Weight (kg)</b>	72.65 $\pm$ 21.7	75.2 $\pm$ 20.7	0.424
<b>Pre-Pregnancy Body Mass Index (BMI)</b>	27.6 $\pm$ 7.6	27.8 $\pm$ 7.5	0.787
<b>Age (years)</b>	30.4 $\pm$ 5.2	31.9 $\pm$ 4.5	0.065
<b>Gestational Age at Delivery (weeks)</b>	38.4 $\pm$ 3.7	38.9 $\pm$ 2.8	0.242

Table 1. Demographic information of patients enrolled in group 1 (non-intervention cohort) and group 2 (video intervention cohort).

	Underweight (BMI <18.5kg/m <sup>2</sup> )	Normal Weight (BMI 18.5-24.9kg/m <sup>2</sup> )	Overweight (BMI 25.0-29.9kg/m <sup>2</sup> )	Obese (BMI >30.0kg/m <sup>2</sup> )	p-value
<b>Group 1: Gained Recommended Weight n (%)</b>	0 (0.00%)	13 (46.40%)	1 (8.30%)	4 (16.00%)	0.007
<b>Group 2: Gained Recommended Weight n (%)</b>	0 (0.00%)	7 (30.40%)	7 (30.40%)	3 (15.00%)	0.483

	Group 1 (Overweight)	Group 2 (Overweight)	p-value
<b>Gained Recommended Weight n (%)</b>	1 (8.30%)	7 (30.40%)	0.216
<b>Did Not Gain Recommended Weight n (%)</b>	11 (91.70%)	16 (69.60%)	

Table 2. Percentage of patients gaining the recommended amount of GWG, stratified by pre-pregnancy body mass index (BMI).

### 833 A bibliometric analysis of obstetrics and gynecology articles with the highest relative citation ratios, 1980-2019



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**OBJECTIVE:** The relative citation ratio (RCR) is a novel bibliometric tool that quantifies the impact of research articles. The RCR is calculated by the number of citations that an article receives per year divided by an expected citation rate that is derived from performance of articles in the same field and benchmarked to a peer comparison group. The purpose of this study was to evaluate the OBGYN articles with the highest RCR and compare characteristics of these articles with articles that are top-cited.

**STUDY DESIGN:** We performed a cross sectional bibliometric study looking at the OBGYN articles with the highest RCR in the NIH Open Citations Collection (1980-2019). The 100 articles with the highest RCR and the 100 top-cited articles were selected for further review. Each article was evaluated using metrics of influence and translation as well as other characteristics. We compared the top-100 articles with highest RCR versus top-cited articles after excluding articles featured on both lists. We calculated relative risks (95% confidence intervals).

**RESULTS:** A total of 323,673 OBGYN articles were identified. There were 60 articles in common between the highest RCR and top-cited groups. The majority of articles with the highest RCR were observational studies, reviews, and consensus statements, and a minority were randomized controlled trials (RCTs). Articles with highest RCR received fewer absolute citations, but had higher numbers of citations per year. Articles with the highest RCR were more likely to address obstetrics topics, to be RCTs, and to be published open access. Comparison of article characteristics are described in the TABLE.

**CONCLUSION:** Nearly half of the 100 articles with highest RCR would not have been recognized as citation classics by conventional bibliometric analysis. The RCR is a novel bibliometric tool that does not rely on absolute citation rates and provides important insights into research in OBGYN.