METHODS: A decision analytic model was designed using TreeAge software in order to compare the outcomes and costs of TXA use in the treatment of PPH.

RESULTS: Administration of TXA to a theoretical cohort of 100,000 women receiving usual care for PPH would prevent 403 maternal deaths due to hemorrhage and 457 laparotomies to control bleeding. This improvement in outcomes would result in an increase in 11,000 QALYs and a cost savings of $596 million. Furthermore, if TXA were administered early (within 3 hours) to the same theoretical cohort, 568 maternal deaths due to hemorrhage and 635 laparotomies would be prevented. This amounts to an increase in 16,000 QALYs and a cost savings of $842 million. Sensitivity analysis showed that the administration of TXA was the dominant strategy (lower costs, better outcomes) at all probabilities of maternal death due to hemorrhage. When the cost of TXA was varied, TXA use remained dominant up to a cost of $6,000 per administration and was cost-effective up to $16,555 (assumed cost = $50.40 per administration).

CONCLUSION: Early administration of TXA is a cost-effective strategy for reducing maternal morbidty and mortality due to PPH.

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Culture Change and Decreased Cesarean Rate Through Implementing C.A.L.M. [350]
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INTRODUCTION: In 2015, by putting the ACOG Consensus into practice, our institution was able to reduce our nulliparous, term, singleton, vertex (NTSV) cesarean rate by 5%. Our numbers then plateaued throughout 2016. In a continued effort to reduce the rate of cesarean sections amongst NTSV patients, we have instituted a multidisciplinary committee within our community hospital setting to help create a Consistent Approach to Labor Management (CALM). At the start of this project, our NTSV cesarean rate was 31.6%. Our benchmark goal was set at less than 24%.

METHODS: The NTSV committee established four work groups with inspiration from the California Maternal Quality Care Collaborative (CMQCC) initiatives that included latent labor interventions, comfort measures for labor, second stage interventions, and ambulation in labor. Each work group focused on identifying variables that have an impact on the rates of cesarean section. An NTSV Fair was held to educate all staff and physicians. NTSV numbers were tracked and shared with all physicians in an unblinded, quarterly basis.

RESULTS: Over an eight-month period we have been able to reduce our NTSV cesarean rate from 31.6% to 24.4%.

CONCLUSION: The Consistent Approach to Labor Management (CALM) Project has helped us to nearly reach our benchmark goal for NTSV cesarean rates. Our NTSV committee will continue to educate our staff and physicians as we strive to change the overall culture towards supporting vaginal deliveries.

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Use of Tranexamic Acid to Prevent Postpartum Hemorrhage in Women Undergoing Vaginal Delivery: A Meta-Analysis [360]
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INTRODUCTION: Randomized clinical trials (RCT) have evaluated the use of tranexamic acid (TXA) for treatment and prevention of postpartum hemorrhage (PPH), but there is currently insufficient evidence to support prophylactic use. Our objective was to conduct a systematic review and meta-analysis using available data from RCTs that evaluated the efficacy of prophylactic utilization of TXA at the time of vaginal delivery.

METHODS: A systematic literature review was conducted using PUBMED and MEDLINE from 1966-2017 using relevant search terms. Secondary citations from retrieved papers were also reviewed. Outcome data from RCTs were abstracted and meta-analysis was conducted using the Mantel-Haenszel fixed effects model with test of heterogeneity.

RESULTS: Three RCTs were identified for the prophylactic use of TXA at the time of vaginal delivery, for a total of 659 women. Compared to placebo, prophylactic administration of TXA significantly reduced blood loss (MBL) (659 women, odds ratio (OR) 0.54, 95% confidence interval [CI] 0.41-0.71), decreased incidence of MBL > 500 cc (two studies, 559 women, OR 0.48, 95% CI 0.26 to 0.88), decreased incidence of PPH > 1000 cc (two studies, 559 women, OR 0.28, 95% CI 0.1 to 0.81), and decreased the use of additional medical interventions (three studies, 659 women, OR 0.27, 95% CI 0.13 to 0.57). No thromboembolic events were reported.

CONCLUSION: Prophylactic administration of TXA following vaginal delivery decreases MBL, decreases the incidence of PPH and reduces the need for additional medical intervention. Additional research is needed to elucidate optimal regimens to maximize efficacy and minimize risk.

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

Opioid Remission in Pregnancy: Effects On Maternal and Fetal Outcomes [370]
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INTRODUCTION: With the rising opioid epidemic, literature has explored the effect of maintenance therapies and detoxification in opioid-dependent pregnancy. However, the outcomes of pregnancy in the opioid remit population have not yet been ascertained. This study will examine the effect of remission on maternal and fetal outcomes of pregnancy compared to a general population.

METHODS: A retrospective cohort study of 1,853,219 singleton gestations in California compared pregnancy outcomes of women with opioid remission to general population data. Maternal outcomes comprised cesarean deliveries, placental abruption, postpartum hemorrhage, and preeclampsia/eclampsia. Neonatal outcomes included preterm delivery (<37, <34, <32 weeks), intrauterine fetal demise, neonatal death (NDD), respiratory distress syndrome, hypoglycemia, jaundice, asphyxia, neonatal seizures and neonatal abstinence syndrome (NAS). Hospital outcomes measured maternal and infant length of stay (LOS). Comparisons were performed using multivariate regression analyses, and Chi-square tests; a p-value of <0.05 was considered statistically significant.

RESULTS: Opioid remission showed a statistically significant increase in NDD, NAS, maternal/infant LOS, and infant hospitalization cost. Pregnancy outcomes of women in opioid remission showed a significantly greater likelihood of maternal sepsis (OR 6.24, 95% CI 1.54-25.26), placental abruption (OR 3.34, 95% CI 2.48-4.50), and neonatal seizures (OR 7.19, 95% CI 3.39-15.24). Mean hospitalization was $7,474 more for the neonate (p <0.001). Maternal LOS (2.71 versus 2.48 days, p <0.001) and neonate LOS (4.66 versus 2.50, p <0.001) were substantially increased.

CONCLUSION: Remission has detrimental effects on pregnancy compared to a general population, and significantly increases NND, NAS and mother-baby dyad hospitals costs. For further analysis, a prospective trial is needed.

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