anesthesia ranged from 0 - 95%. EEG data were acquired using a variety of recording systems with variable number of leads and heterogeneous outcomes reported. The periods of anesthesia monitoring were also heterogeneous. Characteristics of the studies are presented in Table 1. 495 references were imported for screening with 13 final references for data extraction. EEG abnormalities were reported in 204/649 (31.4%) subjects ranging in age from neonate to 18 years; the majority of studies utilized less than 16 channels of (10/13, 76.9%) (Table 1). There was variability in sevoflurane dosing, premedication (e.g., midzolam, hydroxyzine), and periods of anesthesia monitored. DISCUSSION/SIGNIFICANCE: There was heterogeneity noted across reviewed literature including study design, phases of anesthesia, ventilation methods, number of EEG leads recorded and adjuvant anesthetics administered. Nevertheless, this review rigorously classified epileptiform activity during Sevoflurane thereby influencing modern anesthesia.

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## Likelihood of live birth following fertility preserving treatment among reproductive-age women diagnosed with gynecologic malignancies or pre-malignancies*

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OBJECTIVES/GOALS: To determine the impact of fertility preserving treatment (FPT) on likelihood of live birth in a cohort of reproductive-age women (18-45 y) after diagnosis of gynecologic malignancy or pre-malignancy METHODS/STUDY POPULATION: We performed a retrospective cohort study of women ages 18-45 seen by gynecologic oncologists for newly diagnosed cervical cancer (CC), endometrial intraepithelial neoplasia (EIN) or endometrial cancer (EC), and borderline ovarian tumor (BOT) or invasive ovarian cancer (OC) at an academic center from 2015-2019, excluding women who completed childbearing. Our primary outcome was live birth after diagnosis and our exposure was FPT defined as services received by reproductive endocrinology and infertility specialists. We performed Pearsons Chi-squared and log binomial regression to assess association between live birth and FPT with adjustment for patient demographic and disease factors. RESULTS/ANTICIPATED RESULTS: Out of 220 women (median age 36 y), most were White (54% vs. 25% Black) and 37% percent were diagnosed with BOT/OC (vs. 35% EIN/EC; 28% CC). After diagnosis of disease, 19% of women (n=41) had documented FPT and 8% of women (n= 17) had a live birth. By the end of follow-up, 6% of women who did not receive FPT had a live birth (n=11/178) compared to 15% of those who did (n=6/40, p=0.12). In univariate regression, women who received FPT were 2.4 times more likely to have a live birth after disease diagnosis that those who did not receive FPT (p-value = 0.06). However, after adjusting for age at diagnosis, relationship status, disease stage and disease type, the association between FPT and live birth was less robust (RR = 1.4, p-value = 0.6). DISCUSSION/SIGNIFICANCE: In this study, a minority of women had FPT or live births. Our data suggest that FPT benefit should be considered in context of age, relationship status, and disease characteristics for reproductive-age women diagnosed with gynecologic malignancies. Given the complexity, women should be offered referral for consultation with a fertility specialist.

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## Use of a Propensity Score to Examine Association between Rates of In-Hospital Decongestion and Mortality and Cardiovascular Outcomes Among Patients admitted for Acute Heart Failure

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OBJECTIVES/GOALS: Decongestion, or fluid removal, is an important goal in the management of acute heart failure (AHF) among patients with heart failure with reduced ejection fraction (HFrEF). We sought to examine whether the rate of decongestion is associated with mortality and cardiovascular (CV) outcomes. METHODS/STUDY POPULATION: Using data from the Efficacy of Vasopressin Antagonism in Heart Failure Outcome Study With Tolvaptan (EVEREST) trial (n=4133), we evaluated the rate of decongestion by using linear mixed models to derive the in-hospital slope of b-type natriuretic peptide (BNP) and hematocrit as proxies of volume overload and hemoconcentration, respectively. A propensity score was developed to match patients from the quartile with most rapid rates of decongestion to the three quartiles with slower rates. Cox proportional hazards regression models were fitted to assess the association between rate of decongestion with risk of all-cause mortality and a composite of CV mortality or AHF hospitalization. RESULTS/ANTICIPATED RESULTS: Slower rates of in-hospital decongestion were associated with increased risk of both outcomes over a median 10-month follow-up. Those with slower rates of BNP decline, in comparison to the propensity-score matched patients with the most rapid rates of BNP decline, had higher hazards of mortality (HR=1.73 [1.23, 2.42]) and the composite outcome (HR=1.48 [1.18, 1.86]). Those with slower rates of hematocrit increase, in comparison to the propensity-score matched patients with the most rapid rates of hematocrit increase, showed a trend toward higher hazard of mortality (HR=1.17 [0.95, 1.43]) and an increased risk of the composite outcome (HR=1.26 [1.08, 1.47]). DISCUSSION/SIGNIFICANCE: Among patients with HFrEF admitted for AHF, slower rates of decongestion are associated with increased risk of mortality, CV mortality and AHF hospitalization. It remains unknown whether more rapid decongestion provides cardiovascular benefit or if it serves as a proxy for less treatment resistant heart failure.

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## Defining Developmentally High-Risk Full Term and Late Preterm Infants in the Neonatal Intensive Care Unit

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OBJECTIVES/GOALS: We aim to describe the preschool age developmental outcomes of children born full term or late preterm requiring care in the Childrens Wisconsin (CW) neonatal intensive care unit (NICU). Our objective is to develop a model to predict which NICU infants are at high risk for abnormal preschool age

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