Strengthening opioid use disorder training among obstetrician-gynecologists: Hollander et al's call to action

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TO THE EDITORS: "Do you feel prepared?" As newly minted physicians starting residency training this summer, we are now accustomed to this loaded question.

While our seniors sagely advise that there is no way to prepare for what is to come, our medical schools have tried to ensure that we enter intern year as competent physicians. Subinternships and residency preparatory courses have covered everything from suturing and laparoscopic skills to pelvic anatomy.

However, the recently published study by Hollander et al[1] highlights an area of vulnerability for us as future obstetrician-gynecologists: we are ill equipped to care for pregnant women with opioid use disorders (OUDs). Medication-assisted treatment such as buprenorphine is recommended for women with OUDs,[2] yet Hollander et al demonstrated that just over 5% of pregnant women on buprenorphine for OUD received their prescriptions from an obstetrician-gynecologist.[1]

These results are unsurprising. A 2015 study showed that just 0.4% of obstetrician-gynecologists have a Drug Enforcement Administration waiver to prescribe this evidence-based medication.[3] Unfortunately, caring for women with OUDs appears to be a weakness that extends beyond just incoming trainees.

As both surgeons who prescribe perioperative analgesics and primary care physicians, we are uniquely poised to care for this vulnerable group of women. While there are infrastructure and reimbursement challenges to consider, consolidating care during pregnancy would undoubtedly benefit our patients. It has the potential to optimize trust between patients and their obstetricians while also lessening the socioeconomic burdens of appointments with additional providers in the prenatal period.

To address the gaps in care for women with OUDs, addiction training, like knot tying and laceration repairs, should be a core competency of all obstetrician-gynecologists residency program graduates. As it stands, the Substance Abuse and Mental Health Services Administration requires physicians to complete an 8 hour training (in person or online) to obtain a waiver to prescribe buprenorphine.

While recently proposed legislation aims to eliminate this requirement,[4] we see value in this training for undergraduate medical trainees. In conjunction with more clinical exposure to patients with OUDs, this curriculum would allow us to enter residency better prepared to provide the care that we firmly believe our patients deserve.

Given the current opioid crisis, management of OUDs can no longer be seen as a niche clinical interest. It is our collective responsibility to understand and treat OUDs during our training and throughout our careers. We appreciate this timely call to action from Hollander et al. ■

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REFERENCES

1. Hollander MA, Jarlenski MP, Donohue JM, Cole ES, Kelley D, Krans EE. Medical specialty of buprenorphine prescribers for pregnant women with opioid use disorder. Am J Obstet Gynecol 2019;220:502–3.
2. American College of Obstetricians and Gynecologists. Opioid use and opioid use disorder in pregnancy. ACOG Committee opinion no. 711. Obstet Gynecol 2017;130:e81–94.
3. Rosenblatt RA, Andrilla HA, Catlin M, Larson EH. Geographic and specialty distribution of US physicians trained to treat opioid use disorder. Ann Fam Med 2015;13:23–6.
4. Mainstreaming Addiction Treatment Act of 2019, H.R. 2482., 116th Congress (2019).

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Incorporating the probability of competing event(s) into the preeclampsia competing risk algorithm

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TO THE EDITORS: We read with great interest the paper by Wright et al[1] in which the authors assessed the predictive performance of their competing risk algorithm for preeclampsia. Using such an approach, the authors estimated the detection rate for early, preterm, and all preeclampsia to be 90%, 75%, and 50%, respectively. The authors are to be

congratulated for introducing the important concept of survival analysis and competing risks into this emerging field of prenatal care. However, further refinement of the algorithm is warranted.

In the authors' study, the observed incidence of early-onset preeclampsia was well aligned with predicted risks but lower than predicted for all preeclampsia. The authors rightly attribute this phenomenon to the fact that as pregnancies get closer to term, there is more of a chance that delivery will occur before the opportunity for onset of preeclampsia. Indeed, in the authors' model, the average gestational age at delivery with preeclampsia is 54 weeks, well beyond the time frame of normal pregnancy.

Use of the cumulative incidence function (CIF),[2] which factors in the probability that the competing event (delivery for other causes) will occur after delivery because of preeclampsia, would result in more appropriate estimates of individual-specific risks, and these risks will be more in line with observed incidence.

$CIF = \frac{\int_{24}^{G} p(g) S_{oth}(g) dg}{\int_{24}^{\infty} p(g) dg}$, where p(g) is described by the authors.[3] The CIF is equivalent to the formula used by the authors except for the S_{oth} term. S_{oth} is the probability of delivery after a given gestational age for other causes (determined using survival analysis with preeclampsia cases censored). S_{oth} is near 1.0 in early gestation and close to zero near term. Thus, the risk estimate based on the CIF will be similar to the authors' estimate for early preeclampsia, while the risk estimate of all preeclampsia will be lower and more in line with observed incidence. In a subpopulation in which the risk of earlier birth is increased, there would be a further reduction in estimated all preeclampsia risk using the CIF calculation.

Use of the CIF will not only provide a more precise estimate of the risk of observing preeclampsia but also introduce a more easily understood paradigm for risk estimation. Estimate of preeclampsia risk would now not only incorporate the assumption that all pregnancies will eventually be affected by preeclampsia (in most cases at unrealistic gestational ages) but that delivery because of other causes reduces the chance of observed occurrence. ■

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REFERENCES

1. Wright D, Tan MY, O'Gorman N, et al. Predictive performance of the competing risk model in screening for preeclampsia. Am J Obstet Gynecol 2019;220:199.e1–13.
2. Pintilie M. Competing risks: a practical perspective. West Sussex, England: John Wiley and Sons Ltd; 2006.
3. Rolnik DL, Wright D, Poon LC, et al. Aspirin versus placebo in pregnancies at high risk for preterm preeclampsia. N Engl J Med 2017;377:613–22.

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REPLY

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TO THE EDITORS: The risks produced from our competing risks model[1] are for delivery with preeclampsia before a specific gestational age, assuming no other cause for delivery. Because other-cause deliveries are effectively censored observations, the actual incidence of preeclampsia would be expected to be lower than predicted. For early gestations, when there are few other-cause deliveries, the effects would be small. At later gestations, with many other-cause deliveries, the effect of censoring may be substantial.

We welcome the contribution from Krantz and Hallahan who show how, by incorporating a survival function, our model can be extended to predict the risk of birth with preeclampsia that allows for deliveries because of other causes.[2] However, we would not advocate the adjustment in general because, from the perspective of clinical management and decision-making, the risk of assuming no other-cause delivery is more meaningful. For example, the estimated risk of preeclampsia at <41 weeks gestation addresses the question of what is the risk of having to deliver with preeclampsia at <41 weeks gestation if the pregnancy were to continue. In this instance, the finding of a high risk result could lead to medically indicated delivery at an earlier gestational age, such as 38 weeks gestation, thereby avoiding the development of term preeclampsia. Consequently, the no other-cause risk is being used to modify the other-cause delivery process.

A technical issue with the method suggested by Krantz and Hallahan is the specification of $S_{oth}(g)$, which is the probability that delivery from other causes occurs after gestational age g. This should be conditional on the maternal features and biomarker data available. This presents a difficult technical challenge that is avoided by the use of no other-cause delivery risks. ■