

hospitalization actually received a discharge prescription of significantly greater amount (median 240 [interquartile range 120-300] MME) than those who did use inpatient opioids during the last 24 hours of hospitalization (median 150 [interquartile range 100-300] MME, $P = .001$). We agree that this finding is remarkable, and provides further evidence that current prescribing practices are not tied to patient-specific measures of pain. Additional work by our team suggests that both provider and patient factors are related to the amount of opioids prescribed at discharge.²

The current opioid epidemic and widespread attention to overprescribing may very well result in under-treatment of pain, which can have negative consequences for providers (lawsuits) and, more importantly, patients (suffering). This fact highlights the importance of the findings in our article—namely, that prescriptions seemed unmoored from the actual amount of pain a woman was experiencing—and the need for further research to guide appropriate prescribing practices and greater reliance on objective criteria. ■

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Cervical cerclage for women with shortening cervix while on progesterone



TO THE EDITORS: We read with great interest the recent study by Enakpene et al¹ in which 75 women with a shortening cervix while on progesterone therapy were given the option of either continuing with progesterone or having a cervical cerclage in addition. Cervical cerclage was associated with a significantly higher gestational age at term and significant reduction in the risk of preterm and severe preterm birth.

For the last 2 years, we have been applying a similar strategy. We offer cervical length (CL) measurement at the time of routine second-trimester ultrasound scan, and women with CL of 10–25 mm are observed with weekly scans for 4 weeks. If shortening of the cervix to <10 mm is detected during this period, the option of cervical cerclage is given.

We prospectively studied 38 women (1.8% of the screened population) who had initial mid-trimester CL measurement of 10–25 mm and were given prophylactic vaginal progesterone (200 mg/d). In 5 of them (13%), the cervix shortened to <10 mm during follow-up evaluation, and a McDonald cerclage was placed. Among the women whose CL remained at ≥ 10 mm, 6 women (18%; 95% confidence interval, 9–34) delivered at <37 weeks gestation, and 1 woman (3%; 95% confidence interval, 0.5–15) delivered at <35 weeks gestation. All 5 women on cerclage delivered at >37 weeks gestation.

Vaginal progesterone is effective in the reduction of the risk for preterm birth in women with cervical length of <25 mm,²

but its effectiveness appears to be decreasing rapidly for lengths <10 mm.³ It is not certain what the optimal follow-up should be after the initiation of prophylactic progesterone, neither what the best option is when progesterone appears not to work. Based on these small numbers, it is likely that women whose cervical length remains ≥ 10 mm during the first month on progesterone therapy may be at low risk for preterm birth, especially at <35 weeks gestation, and they may represent the group of women in whom progesterone works. On the other hand, women in whom the cervix becomes extremely short while on progesterone therapy may be at high risk for adverse outcome,¹ and it seems that placement of cervical cerclage in this subgroup of women may significantly improve their prognosis, if done while they are still asymptomatic. A corollary of these observations is that regular follow-up evaluation of CL in the immediate period after the onset of prophylactic progesterone may be of value, because it may allow for timely additional intervention in cases of a shortening cervix. ■

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REPLY



Thank you so much for your keen interest in our article and your letter to the editor. I must commend you for your excellent work, your observation, and the outcome of your study. Vaginal progesterone appears to work only for women with a short and stable cervix, because the shorter the cervical length (CL), the higher the risk of spontaneous preterm birth.¹ However, in women with a short dynamic cervix and progressively shortening CL, especially <10 mm, vaginal progesterone alone was less effective compared with combined vaginal progesterone and cerclage as shown in our study.

Extremely short CL increases the risk of cervical dilation, which exposes the fetal membranes to pathogenic vaginal microbiomes. There is also the potential risk of stripping of the fetal membranes from the decidua attachment in the lower uterine segment. These 2 events increase the risk of intra-amniotic infection/inflammation that causes the release of cytokines and prostaglandin that invariably result in uterine contraction and spontaneous preterm birth.² There is currently

no recommendation on the optimal surveillance of cervical length once short cervix is diagnosed, but individual institutions should adopt a protocol based on their patients population and available resources. Our institutional policy includes serial CL measurement every 2 weeks for CL 20–25 mm and weekly for CL <20 mm up to 24 weeks when cerclage is placed if CL is <10 mm. After 24 weeks gestation, women with CL <20 mm may be monitored every 2 weeks up to 28 weeks gestation to enable early detection of patients with extreme short cervix who may benefit from betamethasone for fetal lung maturity. Serial CL measurements may require frequent visits by the patient, an increase in the healthcare staff work load, and economy cost; however, the benefits of additional intervention to reduce extreme prematurity quite outweigh the overall burden of CL surveillance. Finally, spontaneous preterm birth is as a result of interaction of multiple pathologic process such as cervical insufficiency, uterine irritability/contraction, and activation of fetal membranes—decidua interface.³ Therefore, interventions to reduce preterm birth will require a multimodal approach such as a combination of cervical cerclage and vaginal progesterone for those women who are at extreme risk of preterm birth. ■

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Re: Maternal age and risk for adverse outcomes



TO THE EDITORS: We believe that the study design of the paper “Maternal age and risk for adverse outcomes”¹ was mischaracterized as a retrospective cohort. As we have noted

previously,^{2,3} in a cohort study, participants are identified as exposed or unexposed to the factor of interest, regardless of outcome, and are then followed over time to determine who