

sentiments. Of the free-text responses coded as negative, 328 (20%) reported at least one breakdown in the diagnostic process. The 328 reports translated to 548 breakdowns in the diagnostic process. Breakdowns were reported by patients across all six domains of the diagnostic process. Most breakdowns occurred during information gathering ($n = 172$; 31.4%) and treatment ($n = 148$; 27.0%). Phrases used to describe a wrong diagnosis included “misdiagnosed,” “incorrectly diagnosed,” “my diagnosis was incorrect,” “get the diagnosis correct,” “proper diagnosis and care,” and “wrong diagnosis” ($n = 91$; 27.7%). We also observed 15 (4.5%) reports of “missed diagnosis”. Diagnostic accuracy and timeliness were also questioned in 117 (35.7%) and 139 (42.4%) of reports.

Conclusions: Patients have unique and powerful insights on diagnostic safety in urgent care settings. Patient experience surveys are an unlikely but rich source of patient-perceived diagnostic safety issues, particularly identifying issues in information gathering (history and physical examination) and treatment.

Implications for Policy or Practice: Learning healthcare systems should promote the utilization of patient experience surveys to estimate the impact of diagnostic errors and to design systems-based solutions for improving diagnostic safety.

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Patient Safety Culture or Embracing Low Intervention Evidence-Based Care to Support Vaginal Birth: Where Should Hospitals Start?

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Research Objective: Applying safety culture concepts – effective teamwork, psychological safety, engaged leadership, vigilance, and error reporting – to the prevention of medical errors has seen broad support to reduce catastrophic outcomes (i.e., maternal mortality, hemorrhage, eclampsia, etc); however, their role in efforts to minimize overuse is less clear. This study aimed to evaluate safety culture on maternity units in relation to cesarean overuse, and examine whether it is independent of vaginal birth culture, which emphasizes evidence-based low intervention care.

Study Design: 6 Likert-style items measuring safety culture themes were developed based on previous qualitative interviews of nurse and physician maternity unit clinical leads and were appended to the validated Labor Culture Survey (LCS). Within the LCS, the vaginal birth unit microculture (VBM) scale consists of 8 Likert-style items assessing unit norms around supporting vaginal birth. Birth certificate

data and hospital characteristics were linked with hospitals and respondents' survey responses. Multivariate Poisson regression analyses were adjusted for hospital demographics and clinical risk profiles.

Population Studied: Nurses, midwives, and physicians providing intrapartum care at hospitals in Michigan participating in quality improvement efforts to reduce cesarean overuse.

Principal Findings: 3011 clinicians from 54 out of 57 participating hospitals completed the survey with a minimum unit response rate of 30% per hospital. Safety culture individual item scores showed significant association ($p < 0.05$) with cesarean delivery rates after adjustment for hospital demographics and clinical risk. Specifically, as agreement increased on the following safety culture items, cesarean delivery rate decreased: a) frequent treatment team communication to discuss supporting vaginal; b) team members have equal input in management decisions; c) team members feel safe and encouraged to speak up if a patient's chance of having a vaginal birth may be negatively affected by management decisions; d) hospital leadership is engaged in making change to support vaginal birth; e) individual feels personally responsible to maximize the patient's chance of having vaginal birth; and f) nurses feel encouraged to play an active role in making patient management decisions. A safety culture composite score demonstrated a strong association with reduction in cesarean rate by hospital [-16% (95% CI -0.30 to -0.03)], parallel to but lower in magnitude to VBM [-30% (95% CI -0.48 to -0.13)]. No significant interaction effect between mean VBM and safety culture of a hospital was found ($p = 0.79$), suggesting that the effect of VBM versus safety culture on the hospital cesarean delivery rate are independent.

Conclusions: Vaginal birth microculture remains the strongest predictor of cesarean delivery overuse; however, safety culture characteristics including teamwork, psychological safety, and communication demonstrate a strong association with lower cesarean delivery rates, which appear to be similarly important, and independent of vaginal birth culture.

Implications for Policy or Practice: Hospitals addressing cesarean overuse should prioritize readiness for both the specific norms and behaviors of promoting vaginal birth and promoting a broader culture of safety. Measuring both aspects of hospitals' culture during quality improvement efforts may provide insight into organizations with high patient safety profiles that still struggle with high cesarean delivery rates.

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