

REVOLUTIONIZING IMPACT OF POINT OF CARE ULTRASOUND (POCUS): A GAME-CHANGER FOR DECISION MAKING AT BEDSIDE ESPECIALLY IN EMERGENCY OBSTETRICS AND GYNECOLOGY

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Dear Editor,

I am writing to highlight the transformative potential of Point-of-Care Ultrasound (POCUS) in emergency obstetrics and gynecology. It provides immediate bedside imaging, enabling life-saving decisions without delays. Its portability, cost-effectiveness, and ability to minimize patient movement make it indispensable in busy, resource-limited settings. Its capacity to streamline care, improve outcomes, and reduce strain on overburdened healthcare systems caught my attention. It is not just a tool—it's a paradigm shift in emergency obstetrics and gynecology, and its widespread adoption deserves prioritization.

Unlike traditional ultrasound, which often requires scheduling and specialized technicians, trained professionals can perform Point-of-Care Ultrasound at the bedside, promoting a patient-centered approach.^{1,2} In obstetrics, it is invaluable for assessing fetal viability, gestational age, fetal presentation, and complications like placental abnormalities or ectopic pregnancies. A recent multicenter cohort study by Knights et al. demonstrated that POCUS in the third trimester reduced undiagnosed breech presentations at term from 16.5% to 3.5% ($p < 0.001$), significantly improving perinatal outcomes.³ In gynecology, Point-of-Care Ultrasound aids in diagnosing ovarian cysts, fibroids, torsion, and pelvic inflammatory disease, often avoiding invasive procedures.^{4,5} Vinayak et al. showed that training midwives in rural areas to use Point-of-Care Ultrasound with tablet platforms improved diagnostic capabilities in low-resource settings.² Similarly, Prasad et al. emphasized the importance of training midwives to determine fetal presentation using handheld devices, calling it "the need of the hour" to reduce maternal and neonatal morbidity.⁶

However, successful implementation hinges on proper training to ensure accurate image acquisition and interpretation. Structured training programs have been shown to improve the reliability of Point-of-Care Ultrasound findings significantly.⁷

I believe this technology deserves to be highlighted for its far-reaching implications in transforming maternal and gynecological healthcare globally.

REFERENCES

1. Mancusi C, Carlino MV, Sforza A. Point-of-care ultrasound with pocket-size devices in emergency department. *Echocardiography*. 2019 Aug 8;36(9):1755. <https://doi.org/10.1111/echo.14451>
2. Vinayak S, Sande J, Nisenbaum H, Nolsøe C. Training Midwives to Perform Basic Obstetric Point-of-Care Ultrasound in Rural Areas Using a Tablet Platform and Mobile Phone Transmission Technology-A WFUMB COE Project. *Ultrasound Med Biol*. 2017;43:2125. DOI: 10.1016/j.ultrasmedbio.2017.06.005
3. Knights S, Prasad S, Kalafat E, Dadali A, Sizer P, Harlow F, Khalil A. Impact of point-of-care ultrasound and routine third trimester ultrasound on undiagnosed breech presentation and perinatal outcomes: An observational multicentre cohort study. *PLoS Med*. 2023;20(4):e1004192. DOI: 10.1371/journal.pmed.1004192
4. Segura-Grau E, Antunes P, Magalhães J, Vieira IC, Segura-Grau A. Minute Zero: an essential assessment in peri-operative ultrasound for anaesthesia. *Anaesthesiol Intensive Ther*. 2022;54:80. DOI: 10.5114/ait.2022.114321
5. Ursprung E, Oren-Grinberg A. Point-of-Care Ultrasound in the Perioperative Period. *Int Anesthesiol Clin*. 2015;54:1. DOI: 10.1097/AIA.0000000000000084
6. Prasad S, Poljak B, Richens Y, Lee-Wo C, Khalil A. Training midwives to determine fetal presentation using a handheld portable ultrasound device—need of the hour? *AJOG Glob Rep*. 2024 Jan 19;4(1):100314. DOI: 10.1016/j.xagr.2024.100314
7. Ali N, Soomar SM, Waheed S. Point-of-care ultrasound training in low-income countries: a need of time. *Ann Med Surg*. 2023;85:1356. DOI: 10.1097/MS9.0000000000000397



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