PeriGen's Innovative Approach to Labor Assessment Validated by a Study in American Journal of Obstetrics and Gynecology

CARY, NC, UNITED STATES, April 9, 2024 /EINPresswire.com/ -- PeriGen, the global leader in AI-based advanced perinatal software solutions, is proud to share new research published in the American Journal of Obstetrics and Gynecology (AJOG). The study, titled "New labor curves of dilation and station to improve the accuracy of predicting labor progress," represents a paradigm shift in the approach to labor assessment. This research demonstrates that labor curves using multiple variables significantly improve the prediction of labor progress compared to standard methods.

The success of this project highlights the powerful synergy of a multidisciplinary team with clinical, mathematical, and engineering expertise combined with their perspectives as members of universities, major healthcare systems, the NIH, and industry.

Historically, labor progression has been gauged using the Friedman curve, a model established 70 years ago, and more recently with variations like the Zhang curve. Both methods rely solely on the passage of time and are imprecise because labor progress is only indirectly related to time. A better method to assess labor progress is needed because many studies report low compliance with guidelines based on the Zhang curve in cesarean births done for “failure to progress”, indicating that clinicians do not find these curves germane. “Failure to progress” is by far the leading cause of cesarean during labor. Labor curves define how labor should progress. Inaccurate and imprecise labor curves do not serve women or clinicians well.

The report in AJOG addresses this problem with multifactor models that consider key factors

that directly influence labor progression. These models outperformed time-based labor curves on accuracy and precision.

“A labor curve that considers only time is like a GPS system that considers only distance and not other factors like traffic conditions and detours.”
-Karen Kolega, DNP, MSN-CNL, RNC-OB, C-EFM, C-ONQS, Chief Nursing Officer at PeriGen

Moreover, the study leverages advanced modeling techniques, including machine learning, to devise curves of dilation. The multifactor methods reduced prediction errors by over 50%. This advancement not only marks a substantial improvement but also enables individualized care, aligning perfectly with PeriGen's mission to enhance clinical efficiency and ensure patient safety through innovation.

“The multifactor approach allows for a more personalized assessment of labor, moving away from the "one size fits all" methodology. With multifactor models, each woman is compared to her own individualized labor curve based on her specific conditions.”
-John Parker, MD, Chief Medical Officer at PeriGen

PeriGen's technology, particularly the PeriWatch Vigilance® system, uses a similar FDA-cleared multifactor labor curve. It works alongside EMRs and fetal monitoring systems. Results can be sent back to the EMR or elsewhere like smartphones, central nursing stations or remote centers.

“In all its systems, PeriGen looks to increase the level of relevant data made available to care teams. Why stick with the status quo of gauging labor progress based on just one indirect data point when a physician can be informed by many?” “We would like to thank our esteemed colleagues for this outstanding body of research and applaud those physicians across the country who prefer progress over status quo care. ”
-Matthew Sappern, Chief Executive Officer at PeriGen

About PeriGen

PeriGen Inc., a Halma company, offers innovative perinatal software solutions that incorporate advanced statistical analysis features to enhance clinical efficiency and standardization of care during childbirth. Led by skilled OB practitioners and IT visionaries, PeriGen has created the PeriWatch® platform to provide consistent analysis and efficient display of complex data to promote better human recognition and communication about impending problems during labor. With PeriWatch®, clinicians can spend more time on direct patient care and less time on manual calculations and data manipulation.

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