

## **The quality of intrapartum uterine activity monitoring**

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**AIMS:** To determine the quality of intrapartum uterine activity (UA) monitoring in daily practice during the first and second stage of labor. The total duration of inadequate UA monitoring is quantified in relation to the technique applied: external or internal.

**METHODS:** One hundred and ninety-two UA recordings, collected from 1 April 2006 until 1 October 2006 from consecutive deliveries at the Vrije Universiteit Medical Center in Amsterdam, were analyzed. Included recordings were from singleton, spontaneous, vaginal deliveries. The last two hours of the first stage and the complete second stage had to be monitored. Internal and external UA recordings were judged by their quality: adequate, a recognizable and reliable UA pattern during the complete registration, or inadequate. Recordings labeled as inadequate were divided into two groups: absence of UA recording (non recognizable) or inadequate calibration (unreliable). Statistical analyses were performed with the Mann-Whitney U-test and the Wilcoxon signed ranks test.

**RESULTS:** The percentages of adequate UA recordings in the first stage of labor were much higher for the internal than the external mode. Only 2% of the external recordings were of good quality vs. 40% of the internal recordings. In the second stage, percentages of adequate UA recordings were nearly equal, approximately 30%. Inadequate external registrations were characterized by almost 30% of the time absent UA monitoring, whereas with inadequate internal registrations the primary problem was correct calibration.

**CONCLUSION:** Intrapartum UA monitoring in daily practice via the direct mode provides a more recognizable UA trace.