

# Rapid Assessment of Blood Pressure in the Obstetric Day Unit Using Microlife MaM Technology

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**Objective:** To compare MaM technology with current methods of assessing blood pressure (BP) over time on the obstetric day unit. **Background:** It is recommended that the average of repeated measures is used to confirm hypertension in pregnancy. The Microlife 3AC1 is a validated oscillometric device featuring “MaM” mode using the average of at least 3 BP readings 15 seconds apart. This allows rapid assessment of BP. The difference between each measurement is calculated and influences the percentage contribution to the final average reading. We compared MaM with readings taken in a conventional manner. **Methods:** Blood pressure was measured in 30 hypertensive pregnant patients recruited from the obstetric day unit of a large teaching hospital. Single BP measurements were taken at 0, 15, 30, 60, and 90 minutes using the Microlife BP 3BT0-A[2]. Simultaneous measurements (in the opposite arm) were also taken at 0 and 90 minutes using MaM technology. **Results:** Systolic BP fell over 90 minutes ( $p = 0.035$ ) compared with the first single reading, but diastolic BP did not ( $p = 0.54$ ). The difference between the first MaM and the first single reading was significantly different for systolic BP (5.6 mm Hg,  $p = 0.017$ ), but not for diastolic (0.6 mm Hg,  $p = 0.39$ ). The mean of all single readings and the first MaM reading were similar for both systolic and diastolic BP (SBP: 0.3 mm Hg,  $p = 0.75$ , DBP: 0.2 mm Hg,  $p = 0.87$ ). **Conclusions:** White-coat hypertension exists for systolic BP in the obstetric day unit. The MaM technology allows rapid and accurate characterization of blood pressure equivalent to repeated measures over 90 minutes.

**Keywords** Self-measurement, Blood pressure, Oscillometric.