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Objective: To compare the active labor outcome in nulliparous women at term supervised with the partograph with action line either at 2hours or 4hours aiming to determine the better action line placement.

Method: In a prospective randomised study 640 nulliparous women were randomly allocated to labor supervision with the partogram with action line either at 2hours (n=320) or 4hours (n=320). Oxytocin augmentation treatment were at the 2hours (n=72) or 4hours action line (n=79). Progress monitoring was same in both groups.

Results: The caesarean section rate (5.3%), primary post-partum haemorrhage rate (0.6%) and neonatal asphyxia rate at 5 minutes (1.3%) in the 2hours and 4hours action line partogram (4.4%; 0.3% and 0.6% respectively) were statistically not different. The cervical dilatation rate in the 2hours (1.89±1.54cm/hr) was significantly higher than in the 4hours (1.41±1.02cm/hr), hence the first stage duration in the 2hours (4.39±2.75hrs) was significantly shorter than for the 4hours group (5.35±2.75hrs). However, the prolonged labor rate for the 2hours (1.56%) and 4hours (2.81%) were statistically not different.

Conclusion: The partogram with action line at 2hours or 4hours location did not show any difference in labor outcome in respect of mode of delivery, neonatal outcome and prolonged labor rate except for a shorter labor duration which was due to the higher cervical dilatation rate in the 2hours group. The effectiveness of the partogram is not in the action line whether 2hours or 4hours but in commencing the appropriate treatment at the action line of whatever location by a trained staff.