

## The Status of EFM in the Millenium

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The value of EFM as a screening test for intrapartum fetal asphyxia, i.e. the benefits outweigh the harm, has not been established by randomized clinical trials. This presentation provides the results of three studies in one centre supporting the contention that EFM can be a useful screening test for intrapartum fetal asphyxia.

The predictive value of EFM for intrapartum fetal asphyxia was examined in a matched case control study of 71 term pregnancies with fetal asphyxia and 71 matched controls. The sensitivity and predictive value of FHR patterns including the predictive FHR variables, absent and minimal baseline variability and late or prolonged decelerations were examined. Based on this analysis, the following classification of FHR patterns has been proposed.

	<b>Baseline Variability</b>		<b>Decelerations</b>	
	Absent cycles/hr	Minimal cycles/hr	Late or Prolonged cycles/hr	
Predictive	≥ 1			≥ 2
Potentially Predictive #1		≥ 2	+	≥ 2
#2		≥ 2	or	≥ 2

Predictive and potentially predictive FHR patterns will identify the majority of pregnancies with intrapartum fetal asphyxia. Predictive FHR patterns are an indication for intervention. However potentially predictive FHR patterns require supplementary tests before intervention because of the large number of false positive patterns

The benefits of EFM in 166 term pregnancies with intrapartum fetal asphyxia were examined. This study demonstrated that: 1) a predictive FHR record was observed in 78% of pregnancies with mild fetal asphyxia and 83% of pregnancies with moderate or severe fetal asphyxia; 2) a predictive FHR record was the primary indication for intervention and delivery; 3) intervention and delivery in 78 pregnancies with mild fetal asphyxia may have prevented progression to moderate or severe fetal asphyxia; 4) intervention and delivery in 20 pregnancies with moderate or severe fetal asphyxia may have modified the degree of the fetal asphyxia.

The benefits of EFM in 40 preterm pregnancies with intrapartum fetal asphyxia were examined. This study demonstrated that: 1) a predictive FHR record was observed in 60% of pregnancies with mild fetal asphyxia and 83% of pregnancies with moderate or severe fetal asphyxia; 2) a predictive FHR record was the primary indication for intervention and delivery; 3) intervention and delivery in 10 pregnancies with mild fetal asphyxia may have prevented progression to moderate or severe fetal asphyxia; 4) intervention and delivery in 9 pregnancies with moderate or severe fetal asphyxia may have modified the degree of the fetal asphyxia.

**Conclusion:** EFM scored continuously to identify predictive and potentially predictive FHR patterns can be a useful screening test for intrapartum fetal asphyxia. However because of the frequent false positive patterns, potentially predictive FHR patterns require supplementary tests to confirm the diagnosis before intervention.