



# Oxytocin augmentation of spontaneous labour; Is it beneficial & a safe intervention?



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## INTRODUCTION

Oxytocin augmentation of labour is a common intervention in modern Obstetrics. Labour augmentation shortens the duration of labour but has not significantly increased the rates of successful vaginal deliveries. It is an intervention with significant maternal and fetal implications. The essence of care now focuses on a safe delivery, backed by a practice based on evidence. The benefits of each intervention should outweigh the risk. The objective of this study is to evaluate specific maternal and fetal outcomes following oxytocin augmentation of patients in spontaneous labour.

## METHODS

This is a retrospective cohort study based on the National Obstetrics Registry of Malaysia (NOR). The NOR comprises of 14 major tertiary hospitals nationwide; with a total of 399,274 patients. The study period was from 1<sup>st</sup> January 2010 till 31<sup>st</sup> December 2012. 108,977 patients in spontaneous labour were included in this study. The analyses were performed with Stata Statistical Software: Release 11. Simple logistic regression analysis were used to calculate the crude odds ratio.

## RESULTS

Table 1 : Oxytocin use and risk of caesarean section

Oxytocin	Caesarean Section											
	Caesarean section for fetal compromise					Caesarean section for abnormal labour progress						
	Yes		No		OD (95% CI)	P value	Yes		No		OD (95% CI)	P value
	N	%	N	%			N	%	N	%		
Yes	7,145	7.3	91,353	92.7	<b>2.19 (2.06,2.32)</b>	<0.001	1,341	1.4	97,157	98.6	<b>6.29 (5.75,6.87)</b>	<0.001
No	1,530	14.6	8,949	85.4	1.00 (ref)		837	8.0	9,642	92.0	1.00 (ref)	

Table 2 : Oxytocin use and maternal complications

Oxytocin	Maternal Complications											
	PPH					Instrumental deliveries						
	Yes		No		OD (95% CI)	P value	Yes		No		OD (95% CI)	P value
	N	%	N	%			N	%	N	%		
Yes	301	0.3	98,197	99.7	<b>2.00 (1.53,2.63)</b>	<0.001	2,413	2.5	96,068	97.5	<b>3.02 (2.77,3.29)</b>	<0.001
No	64	0.6	10,415	99.4	1.00 (ref)		739	7.1	9,740	92.9	1.00 (ref)	

Table 3 : Oxytocin use and fetal complications

Oxytocin	Fetal Complications											
	Shoulder dystocia					Meconium stained liquor						
	Yes		No		OD (95% CI)	P value	Yes		No		OD (95% CI)	P value
	N	%	N	%			N	%	N	%		
Yes	118	0.1	98,380	99.9	<b>2.95 (2.04,4.28)</b>	<0.001	538	0.5	97,960	99.5	<b>1.51 (1.20,1.89)</b>	<0.001
No	37	0.4	10,442	99.6	1.00 (ref)		86	0.8	10,393	99.2	1.00 (ref)	

There were no statistical significance with oxytocin use and uterine rupture, need for hysterectomy, perineal tears, birth asphyxia and poor Apgar scores.

## CONCLUSIONS

Oxytocin augmentation of spontaneous labour is an intervention which does not increase the success rates of a safe vaginal delivery. It is associated with an increase in maternal complications such as caesarean sections, instrumental deliveries, shoulder dystocia and post-partum haemorrhage. It should not be abused as part of a routine labour ward management without proper assessment and counselling. The principles of care lies in the correct diagnosis of established labour. Interventions should be minimised and used cautiously if the labour progress is abnormal as the ultimate aim is to achieve a safe delivery.

## REFERENCES

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