

An audit of Intrauterine Fetal Resuscitation measures at the Ayrshire Maternity Unit.

AJ Primrose

Crosshouse Hospital, Kilmarnock, Scotland.

Intrauterine resuscitation involves the application of specific measures to a mother in active labour, with the intention of improving oxygen delivery to the compromised fetus.[1]. These measures include; full left lateral tilt, high flow oxygen, 1000ml crystalloid fluid bolus, discontinuation of syntocinon, tocolysis and the use of Vasopressors if maternal hypotension is evident.

Methods

All Caesarean Sections performed under General Anaesthetic between January and November 2013 were retrospectively analysed. Those Caesarean Sections undertaken due to fetal compromise (Category 1) were reviewed and evidence of intrauterine resuscitation documented. Time from decision for Caesarean Section to knife to skin was also investigated.

Results

Thirty-two Category 1 Caesarean Sections under General Anaesthetic were performed for fetal compromise.

Intrauterine Resuscitation measure	Percentage of mothers receiving resuscitation measure (%)
Full left lateral tilt	18.75
High flow oxygen 10-15l via Hudson mask	9.38
1000ml crystalloid fluid bolus	6.67
Syntocinon Discontinued	30.00
Tocolysis (Terbutaline 0.25mg S/C or 2puffs GTN)	10.71

Mean Knife to skin time for those receiving no Intrauterine Resuscitation measures was 19.2minutes (8.79) and for those receiving one or more Intrauterine Resuscitation measures was 14.5minutes (7.54).

Discussion

There are no current guidelines on the use of intrauterine resuscitation for fetal compromise at the Ayrshire Maternity Unit. As a result, these manoeuvres are not routinely practiced. Evidence suggests these simple measures can improve fetal oxygen saturations[2] and do not appear to delay knife to skin times for Category 1 Caesarean Sections. As a result of this audit, a new guideline outlining how to perform intrauterine resuscitation has been produced for the Ayrshire Maternity Unit and the implementation of these manoeuvres will be prospectively audited.

References

1. Velayudhareddy S, Kirankumar H. Management of foetal asphyxia by intrauterine foetal resuscitation. *Indian Journal of Anaesthesia*. 2010 Sep-Oct; 54(5): 394-399.
2. Simpson KR, James DC. Efficacy of intrauterine resuscitation techniques in improving fetal oxygen status during labor. *Obstet Gynecol* 2005; 105: 1362-1368

Presenting Author: **Alyson Primrose** alyp90@hotmail.com

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