



INTRODUCTION



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The third stage is perhaps the most dangerous part of labour for the mother. The main risk being postpartum haemorrhage (*McDonald et al., 1993*).

Postpartum haemorrhage (PPH) accounts for around 28% of maternal deaths in developing countries (*Chamberlain et al., 1992*).

There are about 125 million births annually in developing world and over 125,000 deaths each year. So the risk of maternal deaths from PPH is approximately one in 1000 deliveries there (*Edward et al., 1996*).

Primary PPH is said to occur after 5% of deliveries (*Drug ther Bull, 1992*). But the traditional definition blood loss $\geq 500\text{ml}$ in the first 24 hours is now recognised to be of little clinical relevance (*Joupilla et al., 1995*). Blood loss after delivery is very difficult to measure and PPH may be best defined by a fall in haematocrite or by the need for transfusion (*Roberts et al., 1995*).

There are definite risk factors for PPH including maternal obesity and large baby. In addition to well known factors such as ante-partum haemorrhage and multiple pregnancy. Increased maternal age and prolonged labour were also risk factors, also grand multiparity is a risk factor in developed or developing countries (*Stones et al., 1993*).

Research on prevention of PPH has focussed on routine measures to be taken in all labours. Active management of the third stage prevent

PPH and routine administration of an oxytocic reduces the risk of PPH by 40% (*Prendiville et al., 1988*). The intramuscular administration of syntometrine (a combination of 5 IU oxytocin and 0.5 mg ergometrine; Sandoz Pharmaceuticals, camberley surrey, UK) is now routine in the developed world. However the use of syntometrine is associated with several problems. It is contraindicated in women with hypertension in pregnancy which may affect about one in seven women (*Beischer et al., 1986*). Frequently causes nausea and vomiting (*McDonald et al., 1993*). Finally, because oxytocic agents are not stable at high ambient temperatures and also they require special storage conditions (*ABPI Data Sheet Compendium, 1993*).

Prostaglandins are known to be useful in the treatment of severe postpartum haemorrhage (*Toppozada et al., 1981*). Prostaglandins don't cause hypertension. They may therefore be useful in the prevention of postpartum haemorrhage and for these reasons they may be superior to oxytocin and ergometrine in prevention of postpartum haemorrhage in hypertensive patients. Misoprostol is a prostaglandin E1 analogue marketed for oral use. It does not require special storage conditions and has a shelf life of several years (*Gaud et al., 1992*). Its safety has been established in studies over the past 10 years for the prevention of and management of peptic ulcer (*Collins et al., 1990*).

More recently, it has been shown to be a potent uterotonic agent and has been investigated in the induction of abortion, cervical priming and induction of labour, used either alone or combined with mifepristone (*El-Refaey et al., 1995*). Absorption of misoprostol is very rapid, being detected in the circulation within two minutes of its oral ingestion (*Karim et al., 1987*) it doesn't cause hypertension (*El-Refaey et al., 1994*

and Brechi et al., 1987). So, the availability of an oral and thermostable preparation for routine management of the third stage of labour may have considerable benefits in preventing postpartum haemorrhage and this study is designed to compare between syntometrine and oral misoprostol in prevention of primary atonic PPH.