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ORAL MISOPROSTOL FOR PREVENTION OF POSTPARTUM HEMORRHAGE BY PARAMEDICAL WORKERS IN INDIA (AN ICMR TASK FORCE STUDY)

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Paramedical workers conduct deliveries in the rural areas of India where active management of the third stage of labor is not routinely practised and uterotonic agents are only provided for the management of postpartum bleeding. A multi-site, cluster-randomized, feasibility study was carried out to determine if paramedical workers from rural Peripheral Health Centers (PHCs) could actively manage the third stage of labor using oral misoprostol to prevent postpartum hemorrhage. Six hundred women each received either active management of the third stage of labor with 600 μg of oral misoprostol (intervention) or the current government guidelines for prevention of postpartum hemorrhage (controls). The primary outcome was blood loss after delivery and this was measured using a calibrated blood collection drape.

Baseline characteristics were comparable in both groups and over 70% of women had

Table 1 Outcome of intervention. Figures in parentheses are percentages

	Intervention	*Comparison*			
	Tablet misoprostol (n = 600)	*Injection methergine* (n = 531)	*Tablet methergine* (n = 58)	*None*[†] (n = 11)	*Total* (n = 600)
Duration of third stage of labor (min) (mean ± SD)	7.9 ± 4.2	11.1 ± 4.1***	9.6 ± 5.0**	5.9 ± 2.4	10.9 ± 4.3***
Blood loss (ml)					
Mean ± SD	139.7 ± 100.4	211.8 ± 80.6***	211.6 ± 83.0***	171.8 ± 178.3	211.0 ± 83.4***
Median	100	200***	200***	100	200***
Q1–Q3	90–150	150–250	150–280	100–160	150–250
Range	25–1300	30–750	25–415	100–700	25–750
Postpartum hemorrhage	4 (0.7)	4 (0.8)[NS]	–	1 (9.1)	5 (0.8)[NS]
Additional measures					
Uterotonics	4	2	–	1	3
Intravenous fluids	4	2	–	1	3
Blood transfusion	1	–	–	–	–
Referred to higher level of health facility for PPH	2 (0.3)	1 (0.2)		1 (0.2)	2 (0.3)

***$p < 0.001$; **$p < 0.01$ when compared with the intervention; [†]group was not compared with intervention due to small sample

[NS], not significant; PPH, postpartum hemorrhage

moderate anemia. The paramedical workers were able to provide the intervention according to the guidelines in almost all deliveries (99%). There was a significant reduction in the duration of the third stage of labor (7.9 ± 4.2 vs. 10.9 ± 4.3 min, $p < 0.001$), and the measured blood loss after delivery in the intervention group (139.7 ± 100.4 ml vs. 211.0 ± 83.4 ml, $p < 0.001$). This magnitude of reduction is significant for a country such as India where 80% of the women are anemic at the time of delivery and any reduction in blood loss is considered highly beneficial. The overall incidence of postpartum hemorrhage observed in the study was extremely low (< 1% in both groups), and the study size was not adequate to address the reduction in postpartum hemorrhage at such low incidence (Table 1).

As most deliveries in rural areas take place at home, there is a need to extend this study for all domiciliary deliveries.

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