2.5. RECOMMENDATION:

Should LAY HEALTH WORKERS administer misoprostol to <u>prevent</u> postpartum haemorrhage?

***Problem**:* Poor access to prevention of postpartum haemorrhage
***Option**:* LHWs administering misoprostol
***Comparison**:* Care delivered by other cadres or no care
Setting: Community/primary health care settings in LMICs with poor access to health professionals

Recommendation	*We recommend against the option*	*We suggest considering the option in the context of rigorous research*	***We recommend the option***
	☐	☐	☑
	We recommend the use of lay health workers to administer misoprostol to prevent postpartum haemorrhage. We suggest using this intervention where a well-functioning LHW programme already exists.		

Justification

There is insufficient evidence on the effectiveness or acceptability of using LHWs to administer misoprostol to <u>prevent</u> postpartum haemorrhage. However, this intervention may be feasible under certain conditions and may reduce inequalities by extending care to underserved populations. In addition, a World Health Organisation guideline recommends that where skilled birth attendants are not present and oxytocin is not available, the administration of misoprostol (600mcg PO) by community health workers and lay health workers is recommended for the prevention of postpartum haemorrhage (Strong recommendation, moderate quality evidence).

Implementation considerations

The following should be considered when using LHWs to administer misoprostol:

- LHWs from the same community may be particularly acceptable to recipients. However, they may also be particularly vulnerable to social blame where incidental death or disease or problems in treatment occur. Systems therefore need to be in place to support these cadres, for instance through visible support from the health system, regular supervision, and birth-preparedness counselling
- LHWs and relevant professional bodies should be involved in the planning and implementation of the intervention to ensure acceptability among affected health workers
- This intervention implies irregular working hours. Implementation needs to be in the context of a comprehensive remuneration scheme, in which salaries or incentives reflect any changes in scope of practice. Giving incentives for certain tasks but not for others may negatively affect the work that is carried out
- Systems need to be in place to support LHWs who may need to travel at night in order to assist during labour and delivery
- Referral systems need to function well, i.e. financial, logistical (e.g. transport) and relational barriers need to be addressed. Specifically, local health systems need to be strengthened to improve quality of care at the first referral facility
- Changes in regulations may be necessary to support any changes in LHWs' scope of practice
- Supplies of drugs and other commodities (e.g. delivery kits) need to be secure
- Responsibility for supervision needs to be clear and supervision needs to be regular and supportive
- LHWs and their supervisors need to receive appropriate initial and ongoing training

Monitoring and evaluation

Research priorities

Studies assessing the effects and the acceptability of using lay health workers to administer oxytocin are needed. Trials are currently ongoing.

2.5. EVIDENCE BASE:

Should LAY HEALTH WORKERS administer misoprostol to prevent postpartum haemorrhage?

***Problem**:* Poor access to prevention of postpartum haemorrhage
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	CRITERIA	JUDGEMENT	EVIDENCE	COMMENTS AND QUERIES
BENEFITS & HARMS OF THE OPTIONS	**Are the anticipated desirable effects large?**	No ☐ / Probably no ☐ / Uncertain ☐ / Probably yes ☑ / Yes ☐ / Varies ☐	A systematic review (Lewin 2012) searched for studies that assessed the effects of lay health worker programmes for maternal and child health. However, this review did not identify any studies that assessed the effects of lay health workers to administer misoprostol in the context of task shifting. Another systematic review assessed the effectiveness and safety of advance misoprostol provision for postpartum haemorrhage prevention and treatment in non-facility births, including delivery by LHWs. This review did not identify any studies (Oladapo 2012). **Indirect evidence:** A systematic review (Gülmezoglu 2007) assessed the effects of prostaglandins for preventing postpartum haemorrhage. The review identified two trials where trained TBAs administered either oral misoprostol or placebo. While these trials do not assess the effectiveness of trained TBA delivery, the trials showed no adverse events. A systematic review (Lewin 2012) identified a number of trials from LMIC settings where packages of care were delivered by LHWs. In some of these trials, the packages included the provision of antibiotics to sick newborns and antimalarials to children. Overall, the trials suggest that these packages of care may lead to a reduction in neonatal (moderate certainty evidence) and child mortality (low certainty evidence). **Annex:** page 10 (Lewin 2012 – Table 2)	**Note:** A World Health Organisation guideline recommends that where skilled birth attendants are not present and oxytocin is not available, the administration of misoprostol (600mcg PO) by community health care workers and lay health workers is recommended for prevention of PPH. (Strong recommendation, moderate quality evidence). The guideline notes that, in view of the past concerns regarding community distribution of misoprostol and serious consequences of administration before birth, emphasis should be placed on the training of those providing misoprostol and monitoring of these interventions with appropriate indicators.
	Are the anticipated undesirable effects small?	No ☐ / Probably no ☐ / Uncertain ☐ / Probably yes ☑ / Yes ☐ / Varies ☐		
	What is the certainty of the anticipated effects?	Very low ☐ / Low ☐ / Moderate ☐ / High ☐ / No direct evidence ☑ / Varies ☐		
	Are the desirable effects large relative to the undesirable effects?	No ☐ / Probably no ☐ / Uncertain ☐ / Probably yes ☑ / Yes ☐ / Varies ☐		
RESOURCE USE	**Are the resources required small?**	No ☐ / Probably no ☐ / Uncertain ☐ / Probably yes ☑ / Yes ☐ / Varies ☐	***Main resource requirements*** **Resource** — **Settings in which LHW programmes already exist** *Training* — 1-2 days of practice-based training *Supervision and monitoring* — Regular supervision by midwife or nurse *Supplies* — Misoprostol tablets, robust supply chain *Referral* — Transportation to a centre where comprehensive emergency obstetric care (CeMOC) is available	
	Is the incremental cost small relative to the benefits?	No ☐ / Probably no ☐ / Uncertain ☑ / Probably yes ☐ / Yes ☐ / Varies ☐	Uncertain due to lack of evidence on effectiveness of the intervention	

CRITERIA	JUDGEMENT	EVIDENCE	*COMMENTS AND QUERIES*
Is the option acceptable to most stakeholders?	*No* ☐ *Probably no* ☐ *Uncertain* ☑ *Probably yes* ☐ *Yes* ☐ *Varies* ☑	A systematic review of LHW programmes (Glenton, Colvin 2012) found no studies that evaluated the acceptability of misoprostol when delivered by LHWs. **We are therefore uncertain about the acceptability of this intervention to key stakeholders.** Activities that demand that the LHW is present at specific times, for instance during labour and birth, lead to irregular and unpredictable working conditions. The review suggests that this may have direct implications for LHWs' expectations regarding incentives (low certainty evidence). LHWs may also be concerned about personal safety when working in the community and some LHWs were reluctant to visit clients at night because of safety issues (moderate certainty evidence) (Glenton, Colvin 2012). LHW involvement in deliveries requires an effective referral system. However, a number of challenges with referral of women in labour were seen, including logistics and poor treatment of trained TBAs and women at facilities (moderate certainty evidence). Another systematic review (Glenton, Khanna 2012) explored the acceptability of the use of compact prefilled autodisable devices (CPAD) by LHWs. This review suggests that recipients, LHWs and other health workers find the delivery of drugs and vaccines by LHWs through this device to be acceptable. The importance of training and supervision was emphasised (low certainty **evidence**). Some LHWs voiced concerns about possible social or legal consequences if something went wrong. These concerns were at least partly addressed through support and supervision (low certainty evidence). **Annex:** page 26 (Glenton, Colvin 2012); page 33 (Glenton, Khanna 2012)	
Is the option feasible to implement?	*No* ☐ *Probably no* ☐ *Uncertain* ☐ *Probably yes* ☐ *Yes* ☐ *Varies* ☑	Significant additional work may be needed to add this intervention to an existing LHW programme. It is likely to require changes in regulations; and significant changes to drug supplies and training. Also, implementation would require access to a referral system with trained and equipped healthcare professionals and facilities. Implementation may additionally require consideration of factors affecting referral by LHWs (see under 'Acceptability'). Significant supervision provided by skilled health cadres would likely be needed. Significant training and supervision provided by skilled health cadres would likely be needed. However, a systematic review (Glenton, Colvin 2012) suggests that ongoing support, training and supervision was often insufficient in LHW programmes (moderate certainty evidence). **Annex:** page 26 (Glenton, Colvin 2012)	