

**2.5 and 2.6. RECOMMENDATION:**  
**Should AUXILIARY NURSES administer misoprostol to (a) prevent and (b) to treat postpartum haemorrhage before referral?**

**Problem:** Poor access to prevention and treatment of postpartum haemorrhage  
**Option:** Auxiliary nurses 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	<i>We recommend against the option</i>	<i>We suggest considering the option</i>	<i>We recommend the option</i>
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<p>We recommend the use of auxiliary nurses to administer misoprostol to prevent and treat postpartum haemorrhage.</p> <ul style="list-style-type: none"> <li>For <u>prevention</u> of postpartum haemorrhage, we suggest using this intervention where auxiliary nurses are already an established cadre</li> <li>For <u>treatment</u> of postpartum haemorrhage, we suggest using this intervention where auxiliary nurses are already an established cadre and where a well-functioning referral system is in place or can be put in place</li> </ul>		
<b>Justification</b>	<p>There is insufficient evidence on the effectiveness of using auxiliary nurses to administer misoprostol to prevent and treat postpartum haemorrhage. However, the intervention is probably acceptable and feasible. In addition, the panel feels that the benefits probably outweigh the harms; that minimal clinical decision making is required; and that the intervention may reduce inequalities by extending care to underserved populations. A World Health Organisation guideline also 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 prevention of PPH (strong recommendation, moderate quality evidence).</p>		
<b>Implementation considerations</b>	<p>The following should be considered when using auxiliary nurses to administer misoprostol:</p> <ul style="list-style-type: none"> <li>- The relevant professional bodies should be involved in the planning and implementation of the intervention to ensure acceptability among affected health workers</li> <li>- The distribution of roles and responsibilities between auxiliary nurses and other health workers needs to be made clear, including through regulations and job descriptions</li> <li>- Changes in regulations may be necessary to support any changes in auxiliary nurses' scope of practice</li> <li>- 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</li> <li>- 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</li> <li>- Supplies of drugs and other commodities (e.g. delivery kits) need to be secure</li> <li>- Responsibility for supervision needs to be clear and supervision needs to be regular and supportive</li> <li>- Auxiliary nurses and their supervisors need to receive appropriate initial and ongoing training</li> </ul>		
<b>Monitoring and evaluation</b>			
<b>Research priorities</b>	<p>Studies assessing the effects and the acceptability of using auxiliary nurses to administer misoprostol are needed</p>		

2.5 and 2.6. EVIDENCE BASE:

Should AUXILIARY NURSES administer misoprostol to (a) prevent and (b) to treat postpartum haemorrhage before referral?

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CRITERIA	JUDGEMENT	EVIDENCE	COMMENTS AND QUERIES										
BENEFITS & HARMS OF THE OPTIONS	<p>Are the anticipated desirable effects large?</p> <p>No <input type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input checked="" type="checkbox"/> Probably yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/></p>	<p>A systematic review searched for studies that assessed the effects of midlevel providers, including auxiliary nurses, in improving the delivery of health care services (Lassi 2012). However, this review did not identify any studies that assessed the effects of using auxiliary nurses for this intervention. <b>We are therefore unable to draw any conclusions about the desirable or undesirable effects of this intervention.</b></p>	<p><b>Note:</b> 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 <u>prevention</u> of PPH. (Strong recommendation, moderate quality evidence). The guideline makes no recommendation regarding the use of lay health workers or auxiliary nurses to administer misoprostol at the time of delivery for the <u>treatment</u> of postpartum haemorrhage.</p> <p>The guideline also 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.</p>										
	<p>Are the anticipated undesirable effects small?</p> <p>No <input type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input checked="" type="checkbox"/> Probably yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/></p>												
	<p>What is the certainty of the anticipated effects?</p> <p>Very low <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High <input type="checkbox"/> No direct evidence <input checked="" type="checkbox"/> Varies <input type="checkbox"/></p>												
	<p>Are the desirable effects large relative to the undesirable effects?</p> <p>No <input type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input checked="" type="checkbox"/> Probably yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/></p>												
RESOURCE USE	<p>Are the resources required small?</p> <p>No <input type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/></p>	<p><b>Main resource requirements</b></p> <table border="1"> <thead> <tr> <th>Resource</th> <th>Settings in which auxiliary nurses already provide other care</th> </tr> </thead> <tbody> <tr> <td>Training</td> <td>1-2 weeks of practice-based training in safe delivery and in diagnosing and managing postpartum haemorrhage.</td> </tr> <tr> <td>Supervision and monitoring</td> <td>Regular supervision by midwife or nurse</td> </tr> <tr> <td>Supplies</td> <td>Misoprostol tablets, robust supply chain</td> </tr> <tr> <td>Referral</td> <td>Transportation to a centre where comprehensive emergency obstetric care (CeMOC) is available</td> </tr> </tbody> </table>	Resource	Settings in which auxiliary nurses already provide other care	Training	1-2 weeks of practice-based training in safe delivery and in diagnosing and managing postpartum haemorrhage.	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	
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	CRITERIA	JUDGEMENT	EVIDENCE	COMMENTS AND QUERIES
	<p><b>Is the incremental cost small relative to the benefits?</b></p>	<p>No <input type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input checked="" type="checkbox"/> Probably yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/></p>	<p>Uncertain as there is no direct evidence on effectiveness</p>	
ACCEPTABILITY	<p><b>Is the option acceptable to most stakeholders?</b></p>	<p>No <input type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/></p>	<p>We are not aware of any systematic reviews that considered the acceptability of auxiliary nurse interventions. <b>We are therefore uncertain about the acceptability of this intervention to key stakeholders.</b></p> <p><b>Indirect evidence:</b> Three systematic reviews (Glenton, Khanna 2012; Glenton, Colvin 2012, Rashidian 2012) explored factors that influence the success of task-shifting to <u>lay health workers</u> and <u>nurses</u>. These reviews suggest that the acceptability of such programmes to key stakeholders may be mixed:</p> <ul style="list-style-type: none"> <li>• Nurses may be motivated to take on new tasks by increased recognition and job satisfaction (moderate certainty evidence) (Rashidian 2012).</li> <li>• Recipients, LHWs and other health workers may find the delivery of drugs and vaccines by LHWs through compact prefilled autodisable devices (CPADs) such as Uniject to be acceptable, although the importance of training and supervision is 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) (Glenton, Khanna 2012).</li> <li>• Activities that demand that the LHW is present at specific times, for instance during labour and birth, lead to irregular and unpredictable working conditions. At least one study shows that this may have direct implications for LHWs' expectations regarding incentives (low certainty evidence) (Glenton, Colvin 2012).</li> <li>• There may be a number of challenges with referral of women in labour, including logistics and poor treatment of women at facilities (moderate certainty evidence) (Glenton, Colvin 2012).</li> </ul> <p><b>Annex:</b> page 33 (Glenton, Khanna 2012); page 26 (Glenton, Colvin 2012); page 43 (Rashidian 2012)</p>	
FEASIBILITY	<p><b>Is the option feasible to implement?</b></p>	<p>No <input type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Varies <input checked="" type="checkbox"/></p>	<p>While this intervention is simpler to deliver than oxytocin, significant additional work may still be needed to add this intervention to the tasks of auxiliary nurses. 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.</p> <p>Significant training and supervision provided by skilled health cadres would likely be needed. However, systematic reviews of lay health worker, nurse and midwife programmes suggest that sufficient training and supervision is often lacking (Glenton, Colvin 2012; Colvin 2012; Rashidian 2012).</p> <p><b>Annex:</b> page 26 (Glenton, Colvin 2012); page 20 (Colvin 2012); page 43 (Rashidian 2012)</p>	