

2.3 and 2.4. RECOMMENDATION:
Should LAY HEALTH WORKERS administer oxytocin to (a) prevent and (b) treat postpartum haemorrhage using a compact, prefilled, autodisable device (CPAD) such as Uniject?

Problem: Poor access to prevention and treatment of postpartum haemorrhage
Option: LHWs administering oxytocin using a CPAD
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 only in the context of rigorous research</i>	<i>We recommend the option</i>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>We suggest considering this option only in the context of rigorous research.</p> <ul style="list-style-type: none"> For <u>prevention</u> of postpartum haemorrhage, we suggest evaluating this intervention where a well-functioning LHW programme already exists For <u>treatment</u> of postpartum haemorrhage, we suggest using this intervention <u>only</u> where a well-functioning LHW programme already exists and where a well-functioning referral system is in place or can be put in place 			
Justification	<p>There is insufficient evidence on the effectiveness of using LHWs to administer oxytocin to prevent and treat postpartum haemorrhage. However, this intervention may be an acceptable approach, may be feasible under certain conditions, and may reduce inequalities by extending care to underserved populations.</p>		
Implementation considerations	<p>Not applicable</p>		
Monitoring and evaluation			
Research priorities	<p>Studies assessing the effects and the acceptability of using lay health workers to administer oxytocin are needed.</p>		

2.3 and 2.4. EVIDENCE BASE:

Should LAY HEALTH WORKERS administer oxytocin to (a) prevent and (b) treat postpartum haemorrhage using a standard syringe?

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

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 (Glenton, Khanna 2012) assessed the effect of drug delivery by LHWs using a CPAD device. This review did not identify any eligible studies. We are therefore unable to draw any conclusions about the desirable or undesirable effects of this intervention.</p> <p>Indirect evidence:</p> <p>Another systematic review (Lewin 2012) identified a number of trials from LMIC settings where packages of care were delivered by LHWs. In one of these trials, the packages included LHWs injecting procaine penicillin and gentamicin to treat sick neonates, apparently using a standard syringe. The trial did not report any adverse effects of LHWs using injectable antibiotics. 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).</p> <p>Annex: page 33 (Glenton, Khanna 2012), page 10 (Lewin 2012 – Table 2)</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 checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Probably yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/></p>	<p>Main resource requirements</p> <table border="1"> <thead> <tr> <th>Resource</th> <th>Settings in which LHW programmes already exist</th> </tr> </thead> <tbody> <tr> <td>Training</td> <td>1-2 weeks of practice-based training in injection techniques, 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>Oxytocin, syringes, sterile solution, 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 LHW programmes already exist	Training	1-2 weeks of practice-based training in injection techniques, safe delivery and in diagnosing and managing postpartum haemorrhage.	Supervision and monitoring	Regular supervision by midwife or nurse	Supplies	Oxytocin, syringes, sterile solution, robust supply chain	Referral	Transportation to a centre where comprehensive emergency obstetric care (CeMOC) is available	
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RESOURCE USE	Is the incremental cost small relative to the benefits?	<table border="0"> <tr> <td>No</td> <td>Probably no</td> <td>Uncertain</td> <td>Probably yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	No	Probably no	Uncertain	Probably yes	Yes	Varies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Uncertain due to lack of evidence on effectiveness of the intervention	
No	Probably no	Uncertain	Probably yes	Yes	Varies											
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>											
ACCEPTABILITY	Is the option acceptable to most stakeholders?	<table border="0"> <tr> <td>No</td> <td>Probably no</td> <td>Uncertain</td> <td>Probably yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	No	Probably no	Uncertain	Probably yes	Yes	Varies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A systematic review (Glenton, Khanna 2012) of the acceptability of drug delivery by LHWs using a CPAD device identified one study where LHWs delivered oxytocin for PPH prevention in a clinic setting. In addition, the review identified studies where LHWs delivered other types of medicines and vaccines in a community setting. This review suggests that LHWs find the CPAD device easy to use, carry, store and dispose of and are generally confident in their ability to use the device safely and correctly (low certainty evidence). However, 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).</p> <p>The oxytocin study did not explore recipient views. The other acceptability studies suggest that LHWs using CPADs to deliver other medicines or vaccines are motivated by positive responses from the community and increased social respect. In addition, recipients and other health workers find LHW delivery acceptable, although the importance of training and support is emphasised.</p> <p>Activities that demand that the LHW is present at specific times, for instance during labour and birth, lead to irregular and unpredictable working conditions. Another systematic review of LHW programme acceptability (Glenton, Colvin 2012) 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).</p> <p>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).</p> <p>Annex: page 33 (Glenton, Khanna 2012), page 26 (Glenton, Colvin 2012)</p>	
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>											
FEASIBILITY	Is the option feasible to implement?	<table border="0"> <tr> <td>No</td> <td>Probably no</td> <td>Uncertain</td> <td>Probably yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>	No	Probably no	Uncertain	Probably yes	Yes	Varies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>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, where oxytocin is being used to treat PPH, 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').</p> <p>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 were often insufficient in LHW programmes (moderate certainty evidence).</p> <p>Annex: page 26 (Glenton, Colvin 2012)</p>	
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