

6.1. RECOMMENDATION:

Should LAY HEALTH WORKERS manage puerperal sepsis using intramuscular antibiotics, delivered by a standard syringe, before referral?

Problem: Poor access to treatment for puerperal sepsis
Option: LHWs using intramuscular antibiotics before referral
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"/>
	We suggest considering this option only in the context of rigorous research. We suggest evaluating this intervention where a well-functioning LHW programme already exists, where LHWs are already familiar with injection techniques and materials, and where referral to more specialised care is available or can be put in place.		
Justification	There is insufficient evidence of the effectiveness, acceptability and feasibility of this intervention. However, it may reduce inequalities by extending care to underserved populations.		
Implementation considerations	Not applicable		
Monitoring and evaluation			
Research priorities	Studies are needed to assess the effects and the acceptability of using lay health workers to deliver intravenous antibiotics for puerperal sepsis.		

6.1. EVIDENCE BASE:

Should LAY HEALTH WORKERS manage puerperal sepsis using intramuscular antibiotics, delivered by a standard syringe, 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 (Lewin 2012) assessed the effect of LHW programmes for maternal and child health. This review did not identify any trials where LHWs managed puerperal sepsis. We are therefore unable to draw any conclusions about the desirable or undesirable effects of this intervention.</p> <p>Indirect evidence: The same review (Lewin 2012) identified a number of trials from LMIC settings where packages of care were delivered by LHWs. In one trial, the package 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 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 diagnosing and managing puerperal sepsis, putting up an IV line, IV injection techniques</td> </tr> <tr> <td>Supervision and monitoring</td> <td>Regular supervision by midwife or nurse</td> </tr> <tr> <td>Supplies</td> <td>IV antibiotics, IV kit, 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 diagnosing and managing puerperal sepsis, putting up an IV line, IV injection techniques	Supervision and monitoring	Regular supervision by midwife or nurse	Supplies	IV antibiotics, IV kit, sterile solution, robust supply chain	Referral	Transportation to a centre where comprehensive emergency obstetric care (CeMOC) is available	
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URGE	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 as there is no direct evidence on effectiveness.	
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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 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"/>	<p>A systematic review of LHW programmes (Glenton, Colvin 2012) did not identify any studies that evaluated the acceptability of antibiotics for puerperal sepsis when delivered by LHWs. We are therefore uncertain about the acceptability of this intervention to key stakeholders.</p> <p>Indirect evidence:</p> <ul style="list-style-type: none"> A systematic review (Glenton, Khanna 2012) of drug delivery by LHWs using a CPAD device suggests that recipients, LHWs and other health workers find the delivery of drugs and vaccines by LHWs through this device to be acceptable, although the importance of training and supervision is emphasised (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). 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). 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). While LHW involvement in deliveries requires an effective referral system, a systematic review has pointed to a number of challenges with referral of women in labour, including logistics and poor treatment of trained TBAs and women at facilities (moderate certainty evidence) (Glenton, Colvin 2012). <p>Annex: page 26 (Glenton, Colvin 2012); page 33 (Glenton, Khanna 2012)</p>	
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 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"/>	<p>Significant additional work may be needed to add this intervention to an existing LHW programme. It is likely to require changes in regulations; significant changes to drug supplies and training; and development of appropriate treatment algorithms. Also, 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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