

11.12. RECOMMENDATIONS:
Should AUXILIARY NURSE MIDWIVES deliver magnesium sulphate to women in preterm labour as a neuroprotection for the foetus?

Problem: Poor access to medical management of preterm birth
Option: Auxiliary nurse midwives delivering magnesium sulphate for preterm labour
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 the option in the context of rigorous research. We suggest evaluating this intervention where auxiliary nurse midwives are already an established cadre and where a well-functioning referral system is in place or can be put in place.			
Justification	There is insufficient evidence on the effectiveness of auxiliary nurse midwives delivering magnesium sulphate to women in preterm labour as a neuroprotective for the foetus. However, auxiliary nurse midwives have the necessary clinical skills for diagnosis of preterm labour and for the administration of this drug and the intervention may be acceptable and feasible.		
Implementation considerations	Not applicable		
Monitoring and evaluation			
Research priorities	Studies are needed of the effects and the acceptability of midwives delivering magnesium sulphate and / or corticosteroids for women at risk of preterm birth.		

11.12. EVIDENCE BASE:

Should AUXILIARY NURSE MIDWIVES deliver magnesium sulphate to women in preterm labour as a neuroprotection for the foetus?

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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 nurse midwives, in improving the delivery of health care services (Lassi 2012). However, the review did not identify any studies that assessed the effects of auxiliary nurse midwives delivering magnesium sulphate for women in preterm labour. We are therefore unable to draw any conclusions about the desirable or undesirable effects of this intervention.</p> <p>Indirect evidence: The review (Lassi 2012) did identify a number of other studies, all from high income settings, in which midwives delivered antenatal, intrapartum and postpartum care, although it is not clear precisely what services this care included. The review suggests that midwife-led care may improve several health outcomes while it may make no difference to other outcomes. However, the certainty of this evidence varies. Similar findings were seen in another systematic review on the effects of midwife care (Hatem 2008)</p> <p>Annex: page 4 (Lassi 2012)</p>											
	<p>Are the anticipated undesirable effects 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>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>Main resource requirements</p> <table border="1"> <thead> <tr> <th>Resource</th> <th>Settings in which auxiliary nurse midwives already provide other care</th> </tr> </thead> <tbody> <tr> <td>Training</td> <td>E.g. less than 1 week of training for midwives to diagnosis pre-term labour, gestational age and, for magnesium sulphate, be given skills to safely administer and monitor treatment</td> </tr> <tr> <td>Supervision and monitoring</td> <td>Regular supervision by senior midwife or doctor</td> </tr> <tr> <td>Supplies</td> <td>Magnesium sulphate, IV equipment</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 nurse midwives already provide other care	Training	E.g. less than 1 week of training for midwives to diagnosis pre-term labour, gestational age and, for magnesium sulphate, be given skills to safely administer and monitor treatment	Supervision and monitoring	Regular supervision by senior midwife or doctor	Supplies	Magnesium sulphate, IV equipment	Referral	Transportation to a centre where comprehensive emergency obstetric care (CeMOC) is available	
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	CRITERIA	JUDGEMENT	EVIDENCE	COMMENTS AND QUERIES
	<p>Is the incremental cost small relative to the benefits?</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>Is the option acceptable to most stakeholders?</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>We are not aware of any systematic reviews that considered the acceptability of auxiliary nurse midwife interventions. We are therefore uncertain about the acceptability of this intervention to key stakeholders.</p> <p>Indirect evidence: A systematic review (Rashidian 2012) exploring factors that influence the success of <u>doctor-nurse substitution</u> suggests that the acceptability of this intervention to key stakeholders may be mixed:</p> <ul style="list-style-type: none"> • Nurses may be motivated to take on new tasks by increased recognition and job satisfaction (moderate certainty evidence). • Recipients may regard nurses as more accessible and better at listening than doctors (moderate certainty evidence), but may prefer doctors for some medical tasks (low certainty evidence). • Doctors may welcome the contribution of nurses where it reduces doctors' workloads (moderate certainty evidence) and may be comfortable with nurse prescribing, believing that it improves continuity of care (low certainty evidence). • However, doctors and other health workers may be unwilling to relinquish final responsibility for patient care (low certainty evidence). Also, a lack of clarity about nurse roles and responsibilities in relation to other health workers may be a challenge (low certainty evidence). <p>Annex: page 43 (Rashidian 2012)</p>	
FEASIBILITY	<p>Is the option feasible to implement?</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>The intervention requires relatively few supplies (magnesium sulphate and to IV equipment). In addition, it is simple to deliver.</p> <p>The intervention requires some training. Regular supervision needs to be in place, and adequate referral to a higher level of care for further management may also be necessary. However, a systematic review (Colvin 2012) suggests that ongoing support, training and supervision was often insufficient in midwife taskshifting programmes (moderate certainty evidence). In some settings, changes to norms or regulations may be needed to allow midwives to prescribe and deliver magnesium sulphate.</p> <p>Annex: page 20 (Colvin 2012)</p>	