

11.7. RECOMMENDATION:

Should MIDWIVES perform vacuum extraction during childbirth?

Problem: Poor access to assisted delivery
Option: Midwives performing vacuum extraction
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 with targeted monitoring and evaluation</i>	<i>We recommend the option</i>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>We suggest considering the option with targeted monitoring and evaluation of failure rates, complications and process measures such as frequency of use. We suggest using this intervention where midwives are already an established cadre and where a well-functioning referral system is in place or can be put in place.</p>			
Justification	<p>There is insufficient evidence on the effectiveness of midwives performing vacuum extraction during childbirth and its acceptability is uncertain. However, it is probably feasible and may reduce inequalities by extending care to underserved populations.</p>		
Implementation considerations	<p>The following should be considered when using midwives to perform vacuum extraction:</p> <ul style="list-style-type: none"> - The relevant professional bodies should be involved in the planning and implementation of the intervention to ensure acceptability among affected health workers - The distribution of roles and responsibilities between midwives and other health workers needs to be made clear, including through regulations and job descriptions - Changes in regulations may be necessary to support any changes in midwives' scope of practice - Programmes need to ensure that this task promotes continuity of care, for instance by ensuring that all midwives are "upskilled" to deliver this task for all potential recipients - 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 - 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 - Supplies and equipment need to be secure - Responsibility for supervision needs to be clear and supervision needs to be regular and supportive - Midwives and their supervisors need to receive appropriate initial and ongoing training 		
Monitoring and evaluation	<p>The aim of the targeted monitoring and evaluation would be to gain additional data on how the intervention is being implemented, risk of harm to baby and mother, failure rates, and how frequently the cadre uses this skill</p>		
Research priorities			

11.7. EVIDENCE BASE:

Should MIDWIVES perform vacuum extraction during childbirth?

Problem: Poor access to assisted delivery
Option: Midwives performing vacuum extraction
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 searched for studies that assessed the effects of midlevel providers, including midwives, in improving the delivery of health care services (Lassi 2012). However, this review did not identify any studies that assessed the effects of midwives performing vacuum extraction. 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 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 checked="" 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 midwives already provide other care</th> </tr> </thead> <tbody> <tr> <td>Training</td> <td>E.g. 1-2 weeks of practice training to use a vacuum extraction device</td> </tr> <tr> <td>Supervision and monitoring</td> <td>Regular supervision by senior midwife or doctor</td> </tr> <tr> <td>Supplies</td> <td>Vacuum extraction device, equipment for neonatal resuscitation</td> </tr> <tr> <td>Referral</td> <td>Transportation to a referral centre</td> </tr> </tbody> </table>	Resource	Settings in which midwives already provide other care	Training	E.g. 1-2 weeks of practice training to use a vacuum extraction device	Supervision and monitoring	Regular supervision by senior midwife or doctor	Supplies	Vacuum extraction device, equipment for neonatal resuscitation	Referral	Transportation to a referral centre	
Resource	Settings in which midwives already provide other care												
Training	E.g. 1-2 weeks of practice training to use a vacuum extraction device												
Supervision and monitoring	Regular supervision by senior midwife or doctor												
Supplies	Vacuum extraction device, equipment for neonatal resuscitation												
Referral	Transportation to a referral centre												

	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>A systematic review of task-shifting in midwifery programmes (Colvin 2012) did not identify any studies that evaluated the acceptability of vacuum extraction when performed by midwives. We are therefore uncertain about the acceptability of this intervention to key stakeholders.</p> <p>Indirect evidence: For other midwife-delivered interventions, the same review suggests the following:</p> <ul style="list-style-type: none"> • Mothers and midwives are more likely to accept task-shifting initiatives if they increase the midwives' ability to provide more holistic and continuous care (moderate certainty evidence) • Midwives may also be motivated by being "upskilled" as it can potentially lead to increased status, promotion opportunities and increased job satisfaction (moderate certainty evidence) • However, midwives may not readily accept a mode of care that is technology-focused and that views pregnancy as risky and uncertain (moderate certainty evidence). They may also be less likely to accept tasks that increase the involvement of others in clinical care. In addition, midwives may be concerned about the increased liability that may accompany new tasks (moderate certainty evidence) • Doctors may be skeptical about the extension of midwifery roles in obstetric care, although doctors who worked closely with midwives tended to have better attitudes towards them (low certainty). • A lack of clarity in roles and responsibilities between midwives and other health worker cadres, as well as status and power differences may also lead to poor working relationships and 'turf battles' (moderate certainty evidence) <p>Annex: page 20 (Colvin 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 a vacuum extraction device and equipment for neonatal resuscitation. Some training and supervision is needed, 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 perform vacuum extraction.</p> <p>Annex: page20 (Colvin 2012)</p>	