

**11.13. RECOMMENDATIONS:**
**Should ASSOCIATE CLINICIANS perform caesarean sections?**
**Problem:** Poor access to caesarean section

**Option:** Associate clinicians performing caesarean section

**Comparison:** Caesarean section delivered by other cadres

**Setting:** Health care facilities in LMICs

| Recommendation                       | <i>We recommend against the option</i>  | <i>We suggest considering the option targeted monitoring and evaluation</i> | <i>We recommend the option</i> |
|--------------------------------------|---|---|--------------------------------|
|                                      | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>       |
|                                      | We recommend against the use of associate clinicians to perform caesarean section.  |   |                                |
| <b>Justification</b>                 | There is insufficient evidence on the effectiveness of associate clinicians performing caesarean section. We are also uncertain about its acceptability and its feasibility in many settings as associate clinicians do not generally have surgical skills. |   |                                |
| <b>Implementation considerations</b> | Not applicable  |   |                                |
| <b>Monitoring and evaluation</b>     |   |   |                                |
| <b>Research priorities</b>           | Studies are needed to assess the effects of associate clinicians performing caesarean section.  |   |                                |

11.13. EVIDENCE BASE:

Should ASSOCIATE CLINICIANS perform caesarean sections?

**Problem:** Poor access to caesarean section

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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 compared clinical officers (unclear what level of training they had) with medical doctors for caesarean section (Wilson 2011). The review identified 6 studies from low and middle income countries, but the evidence is of very low certainty and we are therefore unable to draw conclusions on the effects of using clinical officers for caesarean section.</p> <p>Annex: page 18 (Wilson 2011)</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 checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High <input type="checkbox"/> No direct evidence <input 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 checked="" type="checkbox"/> Probably no <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably yes <input 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 associate clinicians already provide other care</th> </tr> </thead> <tbody> <tr> <td>Training</td> <td>Several months of practice-based training in caesarean section</td> </tr> <tr> <td>Supervision and monitoring</td> <td>Associate clinicians may operate without supervision but the procedure related morbidity and mortality should be regularly monitored. In addition, associate clinicians should have access to a doctor or highly experienced associate clinician for support</td> </tr> <tr> <td>Supplies</td> <td>Facility with surgical and anaesthesia capacity, surgical instruments and supplies, drugs, resuscitation equipment</td> </tr> <tr> <td>Referral</td> <td>Referral essential in case of complications</td> </tr> </tbody> </table> | Resource             | Settings in which associate clinicians already provide other care | Training | Several months of practice-based training in caesarean section | Supervision and monitoring | Associate clinicians may operate without supervision but the procedure related morbidity and mortality should be regularly monitored. In addition, associate clinicians should have access to a doctor or highly experienced associate clinician for support | Supplies | Facility with surgical and anaesthesia capacity, surgical instruments and supplies, drugs, resuscitation equipment | Referral | Referral essential in case of complications |  |
| Resource                        | Settings in which associate clinicians already provide other care  |   |                      |   |          |  |                            |  |          |  |          |   |  |
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| Supervision and monitoring      | Associate clinicians may operate without supervision but the procedure related morbidity and mortality should be regularly monitored. In addition, associate clinicians should have access to a doctor or highly experienced associate clinician for support   |   |                      |   |          |  |                            |  |          |  |          |   |  |
| Supplies                        | Facility with surgical and anaesthesia capacity, surgical instruments and supplies, drugs, resuscitation equipment   |   |                      |   |          |  |                            |  |          |  |          |   |  |
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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    Probably no    Uncertain    Probably yes    Yes    <b>Varies</b></p> <p><input type="checkbox"/>    <input type="checkbox"/>    <input checked="" type="checkbox"/>    <input type="checkbox"/>    <input type="checkbox"/>    <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    Probably no    Uncertain    Probably yes    Yes    <b>Varies</b></p> <p><input type="checkbox"/>    <input type="checkbox"/>    <input checked="" type="checkbox"/>    <input type="checkbox"/>    <input type="checkbox"/>    <input type="checkbox"/></p> | <p>A rapid review of literature on associate clinician / advanced level associate clinician programmes suggests that:</p> <ul style="list-style-type: none"> <li>- There may be a lack of acceptance of associate clinicians / advanced level associate clinicians among other professionals and professional bodies in a number of settings, and these bodies may block the development of the cadre or attempt to restrict what they can do. Acceptance appears to vary across procedures that they are trained to deliver</li> <li>- Associate clinicians / advanced level associate clinicians may not be given recognition and respect from doctors and health administrators, despite doing work similar to that done by doctors, and this is seen as problematic</li> <li>- There may be discrepancies between acceptance at national ministry level, existing regulations for registration of associate clinicians / advanced level associate clinicians, the training they receive and clinical practice. Consequently, they may only be able to undertake a proportion of what they were trained to do in relation to emergency and comprehensive obstetric care or may be perform services without regulatory authorisation</li> </ul> <p>The certainty of this evidence is unclear as the quality of the contributing studies and the generalisability of the findings are unclear.</p> <p><b>Annex:</b> page 25 (Daniels 2012)</p> |                      |
| FEASIBILITY   | <p><b>Is the option feasible to implement?</b></p>                    | <p>No    Probably no    Uncertain    Probably yes    Yes    <b>Varies</b></p> <p><input type="checkbox"/>    <input type="checkbox"/>    <input checked="" type="checkbox"/>    <input type="checkbox"/>    <input type="checkbox"/>    <input type="checkbox"/></p> | <p>The intervention requires well equipped facilities, including access to a surgical facility / theatre, surgical instruments and resuscitation equipment. In addition, changes to norms, regulations and scopes of practice are likely to be needed to allow associate clinicians to perform these procedures. Significant training and regular supervision is also necessary, and adequate referral to a higher level of care for management may be required.</p>  |                      |