A systematic literature search: Intrapartum guidelines for African hospitals

**Summary:** By a systematic search in PubMed combining search terms related to clinical guidelines, intrapartum care, and low resource settings, with specific focus on Africa (1st January 2000 – 6th July 2016, English language), we identified 43 published studies on guidelines development/modification, use, or effectiveness. Four studies concerned development/modification of guidelines, and eight evaluated guidelines implementation (one study was included in both of these categories). The remaining 32 publications compared actual clinical practice with expected best quality of care as recommended by well-established international evidence-based guidelines. All of the latter 32 analyses concluded clinical practice to be alarmingly suboptimal when compared to international guidelines; 15 of these, representing 11 sub-Saharan African countries, specifically called for simpler and more achievable guidance. While international guidelines production for intrapartum care appears to have increased rapidly since 2000, published literature suggests that it has only in few instances been matched with reviews of local modifications, use, and impact at the targeted low resource facilities.

**Objective:** To quantify the number and summarize the content of published studies on intrapartum guidelines for low income settings, with specific focus on Africa.

**Eligibility criteria:**

**Topic:** Intrapartum clinical guidelines, defined as guidelines for the period from the onset of labour to the end of the third stage of labour.

**Types:** All published studies, including reviews, concerning:

1. Development/modifications/adaptations of guidelines
2. Implementation of guidelines
3. Evaluation of guidelines use and effect, including perceptions among staff, knowledge/skills changes, and resulting changes in practice and outcome

**Exclusion criteria:** Articles solely reporting on drugs regimens or single procedures.

**Settings:** The main focus of the search was African low resource hospitals. However, when found by the search, relevant studies from comparable low resource settings in other parts of the world were included as well.
Time interval: 1\textsuperscript{st} January 2000 – 5\textsuperscript{th} July 2016

Language: English

**Database:** Pubmed

**Search strategy:**

### Main search:

<table>
<thead>
<tr>
<th>Search parts</th>
<th>Guidelines</th>
<th>Intrapartum</th>
<th>Low resource settings</th>
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<td></td>
<td></td>
<td>Parturition</td>
<td>Developing countries</td>
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<td>Africa</td>
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<td>Intrapartum</td>
<td>“Low income”</td>
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<tr>
<td></td>
<td>“Best practice(s)”</td>
<td>Birth</td>
<td>Africa</td>
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<td>Parturition</td>
<td>“Developing country”</td>
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### Supplementary search:

A focused search was conducted on the World Health Organization’s guidelines for managing complications in pregnancy and childbirth:

<table>
<thead>
<tr>
<th>Search parts</th>
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<th>The IMPAC guidelines</th>
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<td>WHO</td>
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<td>IMPAC</td>
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</table>

\[
((("World Health Organization"[Mesh]) OR "World Health Organization") OR WHO)) AND ((("managing complications in pregnancy and childbirth") OR ("integrated management of pregnancy and childbirth") OR IMPAC)
\]

**Study selection:**

The main broad search resulted in 405 titles. After a scan of abstracts and full text articles where relevant, 42 publications followed the eligibility criteria and were included. In the vast majority of excluded publications, the term guidelines or its synonyms was e.g. used in methodological sections or in debates/discussions without the eligibility criteria being met. In addition, some publications concerned antenatal or neonatal care, or child health, which lay outside the scope of this review.
The supplementary search resulted in 32 titles, of which one additional quality assurance study was included, resulting in a total of 43 included publications.

Figure S1 A systematic literature search of intrapartum guidelines for African hospitals; synthesis of the results. *One study is included in both categories.

Synthesis of results (Figure S1):

Four publications described the development or modification process of guidelines. In two of the publications, Kongnyuy et al. described participatory national approaches for development of standards for obstructed labour and women friendly intrahospital care in Malawi.\(^1,2\) They concluded that while international guidelines were traditionally based on expert consensus, it was beneficial to include the actual end users in the processes. As part of a package to improve emergency obstetric care in two rural districts of Mali, Otchere et al. briefly described that they in collaboration with hospital partners, the Ministry of Health, and others developed clinical protocols for the targeted facilities.\(^3\) Finally, Ameh et al. described the development process, including feedback from Nigerian birth attendants, of a severe pre-eclampsia/eclampsia monitoring and treatment sheet (the LIVKAN chart), which includes guidelines.\(^4\)

Eight publications concerned evaluation of implemented guidelines. A study from a community hospital in Senegal implemented emergency obstetric guidelines by criterion-based audit and feedback and evaluated the effect on clinical practice.\(^5\) In two publications, the QUALMAT study team presented multicenter evaluation of a computer-assisted clinical decision support system for antenatal and delivery care in sub-Saharan Africa, which included guidelines.\(^6,7\) They explored both staff's
perceptions and the effect on maternal and perinatal outcome. A one-center study from India evaluated effects of the WHO Safe Birth Checklist, which included guidelines, on clinical practice. Two single-hospital studies from tertiary facilities in Tanzania and Pakistan evaluated the effect of locally developed guidelines for eclampsia and postpartum haemorrhage, respectively, on clinical practice and outcome. One study from Malawi evaluated national guidelines regarding the obstructed labour guidelines described above. Finally, in the LIVKAN publication described above, birth attendants’ immediate perceptions to the new chart was included. All publications concluded their guidelines to show promising effects.

The remaining 32 publications reported on quality assurance studies of intrapartum care compared to well-established international evidence-based guidelines. They presented findings from one or more low resource facilities, and quantitative, qualitative, and mixed methods approaches were applied. All studies concluded intrapartum care to be suboptimal when compared to evidence-based best practice. Of the studies, 15 (47%), representing 11 sub-Saharan African countries, specifically stressed the need for useful guidelines in their facilities. Others stressed the need for strengthening supplies, staff numbers, and training in order to follow established international guidelines. Two of the publications presented reviews of criterion-based audits concerning intrapartum care and reached similar conclusions.

Conclusion: Multiple quality assurance studies from low resource settings conclude intrapartum care to be suboptimal when compared to well-established recommendations of best practice, and the need for locally useful guidelines is repeatedly stressed. However, while international guidelines production for intrapartum care appears to have increased rapidly since 2000, it has not been acceptably matched with reviews of actual use and impact at the targeted low resource facilities.

References:


