Essential interventions for safer maternal and newborn health

Guide to support implementation by practitioners

Improving the quality of maternal and newborn health care services through accelerated implementation of the essential interventions by the health care professionals associations.
The team

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Reference

Available at www.figo.org/figo-project-publications – see FIGO-ICM-IPA Essential Interventions Project – and also at www.internationalmidwives.org and www.ipa-world.com

This resource has been produced to assist with dissemination of selected essential interventions and their implementation in clinical practice to improve maternal and newborn outcomes.
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PMNCH funded phase 1 of the first project to promote joint working across the three health care professionals associations (HCPAs) – FIGO, ICM and IPA – at international and national levels to guide best practice and effective implementation of stability, structures, systems and commitment to reach health providers at all levels.

This joint initiative recognises that engaging HCPAs, health facilities, the Ministry of Health, academic institutions and civil society is vital in the continuous dissemination and implementation of the essential interventions for maternal and newborn health.

Uganda was selected as the first country to test the effects and effectiveness of a package of activities to strengthen the essential interventions and joint work by obstetricians, midwives and pediatricians in health facilities. This booklet was used to guide dissemination activities and aims to bridge the ‘know-do gap’.

The package of activities was built on an evidence-based conceptual framework, supported by a communication strategy. It included dissemination workshops, development of reminders, birth simulation sessions, team building, case reviews and academic visits in the wards.
Project strategy

- The eight selected essential interventions focus on the birth and postnatal period.

- This covers a critical period for mothers and newborns and offers an opportunity for obstetricians, midwives and pediatricians to work collaboratively to improve maternal and health outcomes.

Sample cards and checklists
Eight selected essential interventions

- Each essential intervention (EI) is presented in individual memory cards which include a summary of evidence, references and practice tips for implementing the essential intervention.

<table>
<thead>
<tr>
<th>General EI</th>
<th>CHILD BIRTH</th>
<th>NEWBORN</th>
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<td>Social support during childbirth (priority intervention).</td>
<td>Promote and provide thermal care for all newborns to prevent hypothermia (immediate drying, warming, skin-to-skin, delayed bathing).</td>
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<tr>
<td>Prophylactic uterotonic to prevent postpartum haemorrhage.</td>
<td>Promote and support early initiation and exclusive breastfeeding (within the first hour).</td>
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<table>
<thead>
<tr>
<th>Specific EI</th>
<th>CHILD BIRTH</th>
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<td>Prophylactic antibiotics for caesarean section.</td>
<td>Kangaroo mother care (KMC) for preterm and babies &lt;2000g.</td>
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<tr>
<td>Induction of labour for prolonged pregnancy.</td>
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</table>
1. Social support during childbirth by health care professionals or companions

Summary of evidence

- Reduced the risk of caesarean sections and antenatal hospital admissions.
- Reduced the need for pain relief analgesics.
- Increased rate of terminations.
- Lower overall health risks for mothers.
- Did not reduce the number of preterm or perinatal mortality.


Implementation of EI: practice tips

What? (Use WHO definition of social support in labour)

1. When the woman arrives, how welcoming are the facility and the staff? Are women encouraged to have companions throughout labour?

How?

2. Relationships with mothers need to be trusting and open.
3. Mothers treated with kindness, dignity, respect and privacy.
4. Staff competent in clinical skills and information giving. For example, give explanations about all procedures and encourage the woman to move about in labour, and offer light refreshments and encouragement.

Major change in practice

- Discussion about improving facility environment to promote the role of companions throughout labour.
- Staff challenged for poor behavioural norms.
- All complaints by mothers taken seriously and investigated and staff held accountable.
- Social support to be recorded in clinical notes.
2. Uterotonic to prevent postpartum haemorrhage

Summary of evidence

- Routine uterotonic agents to prevent postpartum haemorrhage can reduce maternal mortality by 40%.
- Lack of trained personnel and refrigeration to store oxytocic agents undermine the potential for implementing the active management of third stage labour.
- Misoprostol, an oral preparation of prostaglandin (PGE₁) analogue, with its uterotonic properties: ease of use as an oral, vaginal or rectal preparation; relatively low cost in some areas; and stability of the drug efficacy at high temperature whilst suitable is not as effective – incidence of PPH with misoprostol was 4% compared to 3% with oxytocin.
- Regular palpation of uterus after delivery to ensure it remains contracted – putting the baby to the breast at this stage helps.

What?

1. Prophylactic uterotonic and active management of third stage of labour (AMTSL) to reduce the risk of postpartum haemorrhage.

How?

2. A uterotonic, preferably oxytocin, 10 IU IM immediately after all births, including caesarean sections.
3. Regular updating of knowledge to manage the third stage of labour using uterotonic.
4. Review storage and availability of oxytocin for all women.
5. Regular case reviews of women diagnosed with PPH to learn lessons.

Major change in practice

- Delayed cord clamping (1–3 minutes after birth).
- Regular and frequent assessment of uterine tone by palpation of the uterine fundus after delivery of the placenta.

Implementation of EI: practice tips


Evidence base available at http://apps.who.int/iris/bitstream/10665/75519/1/WHO_RHR_12.29_eng.pdf?ua=1
3. Prophylactic antibiotics for caesarean section

Summary of evidence

- Reductions in all maternal morbidity primary outcomes: febrile morbidity wound infection and serious infectious morbidity.

- Administration of antibiotics before or after clamping of the cord is equally effective for women undergoing caesarean section.

- Adverse effects of antibiotics on the baby have not been evaluated.

Implementation of EI: practice tips

What?

1. Administering prophylactic antibiotics to women prior to caesarean section reduces morbidity and mortality due to infections.

How?

2. Prophylactic antibiotics should be prescribed and administered to all women undergoing a caesarean section.

3. This should be recorded in the notes by the person who administers it.

4. Records of infection rates in women during childbirth should be kept in maternity units.

5. All women should have their temperature, wound site and other signs of infection observed.

6. There should be a high standard of hygiene in the maternity facility and aseptic techniques followed during all surgical procedures.

Major change in practice

- All women undergoing caesarean section receive prophylactic antibiotics.

- Improve documentation relating to prophylactic antibiotics.


4. Induction of labour for prolonged pregnancy

Summary of evidence

- Usually recommended for pregnancy over 41 weeks (> 40 weeks + 7 days).
- Caution is required because the procedure carries the risk of uterine hyperstimulation and rupture, and fetal distress.
- Induction of labour is recommended for women with pre-labour rupture of membranes at term (high-quality evidence).
- Oral misoprostol (25 μg, 2-hourly) or vaginal low-dose misoprostol (25 μg, 6-hourly) is recommended for induction of labour.
- Sweeping membranes is recommended for reducing formal induction of labour.
- Induction for medical indications may be associated with poorer outcomes due to maternal baseline risks.

What?

1. Awareness of the commonly recorded indications for induction of labour.
2. Induction for prolonged pregnancy improves perinatal outcome.

How?

3. Women receiving oxytocin, misoprostol or other prostaglandins should never be left unattended.
4. Women having induction of labour should be monitored using a partograph, with special attention to the strength, length and frequency of contractions and the pain threshold.
5. They may require additional pain relief and careful monitoring.

Major change in practice

- Improve the rates of induction of labour for prolonged pregnancy.
- Develop a standard for induction of labour in women with prolonged pregnancy.

Implementation of EI: practice tips

5. Thermal care (immediate drying, warming, skin-to-skin, delayed bathing)

Summary of evidence

- Hypothermia has been defined by WHO as body temperature below the normal range (36.5°C–37.5°C) and has been sub-classified into three grades: mild (36.0°C–36.5°C), moderate (32.0°C–35.9°C) and severe (<32.0°C) hypothermia – the most common preventable cause of neonatal mortality and morbidity. Baby should be re-warmed immediately and gradually.

- Early breastfeeding initiation, skin-to-skin contact, delayed bathing, and immediate wrapping and drying, as well as hygiene (clean delivery and cord care), resulted in a 54% reduction in neonatal mortality.

- The most common methods to re-warm a baby are to wrap him/her in a dry, soft cloth that covers the head, use of radiant heaters, and a heated bed in combination with incubators.

What?

1. Babies have a large surface area, compared to their body mass, they are wet at birth and are also used to a warm uterine temperature so they lose heat very rapidly. Drying and wrapping the baby immediately after birth is recommended.

How?

2. Place of birth must be warm, with facilities to dry the baby with absorbable cloth.

3. Commence skin-to-skin contact and delay bathing the baby as well as dressing him/her, and covering the head.

4. After skin-to-skin contact is finished (for at least one hour), dress the baby but delay the bathing for at least six hours.

5. Encourage skin-to-skin contact with mother. If the baby is cold, use the radiant heaters.

6. Check baby’s temperature and check the baby’s behaviour for slow feeding and lethargy.

7. Record thermal care of baby in case notes.

Major change in practice

- Record thermal care received by newborn at birth.

Implementation of EI: practice tips


6. Early initiation and exclusive breastfeeding

Summary of evidence

- WHO recommends all infants should be fed exclusively on breast milk from birth to six months of age.
- Babies who are not fully breastfed for the first 3–4 months are more likely to suffer from gastroenteritis, respiratory and ear infections, urinary tract infections, allergies and diabetes mellitus.
- Breastfeeding education, peer support for women, needs-based, one-to-one, informal education or support sessions are most effective.
- Information produced by commercial milk companies is not useful.

Implementation of EI: practice tips

What?
1. When the baby is born, make sure he/she is put to the breast within the first hour of birth.

How?
2. Assist the mother with positioning the baby to breastfeed as she may be tired after labour. Supervise her if she has had medication or an operative birth.
3. Encourage skin-to-skin contact.
4. Support and reassure the mother to gain confidence in her ability and explain the benefits of early feeding as colostrum is highly nutritious.

Major change in practice

- Focus on starting breastfeeding during the first hour of birth.
- Encourage the mother and support her if there are difficulties or problems.
- Address barriers that may hinder promotion of breastfeeding in the first hour after labour.
- Be confident of your knowledge of physiology of lactation. There is no such thing as inadequate supply of milk.

What?

1. Kangaroo mother care is a low cost procedure which is effective in improving health outcomes for preterm babies.

How?

2. Encourage all mothers to practice kangaroo mother care.
3. Practice techniques of tying a cloth to support the baby next to mother’s chest making sure both are comfortable.
4. Hold demonstration sessions and displays of kangaroo mother care.

Major change in practice

- Promote kangaroo mother care for small babies.
- Education of mothers.
- Improve record keeping.

Summary of evidence

- Kangaroo mother care (KMC) came about as a response to the high death rate in preterm babies seen in Bogota, Colombia, in the late 1970s. Death rate for premature infants was 70%.

- Studies comparing incubator and kangaroo mother care found that heart rate and abdominal skin temperature rose for infants during KMC. Heat loss did not occur during KMC, and infants slept more during KMC. Kangaroo mother care had a comforting effect on infants and their mothers. Apnoea and periodic breathing episodes dropped during KMC.


8. CPAP to manage preterm babies with respiratory distress syndrome

Summary of evidence

- Comparing CPAP and surfactant treatment, CPAP recipients required less frequent intubations or postnatal corticosteroids and fewer days of mechanical ventilation, and were more likely to be alive and free from the need for mechanical ventilation by day.

- All babies who require respiratory support other than oxygen as a result of respiratory disease in the immediate neonatal period should be intubated with an endotracheal tube on delivery suite, given surfactant when appropriate and receive intermittent positive pressure ventilation until they arrive on the neonatal unit. If gases are acceptable, rapid weaning should take place and baby should be transferred onto CPAP or head box oxygen depending on birth weight.

What?

1. Continuous positive airway pressure (CPAP) is a type of respiratory support. In premature babies, CPAP is delivered through a set of nasal prongs or through a small mask that fits snugly over a baby’s nose when intubation is difficult.

How?

2. Preterm babies who have recurrent apnoea and require frequent stimulation may benefit from CPAP.

3. Nasal CPAP is effective when endotracheal intubation equipment is not available.

4. When weaning babies from CPAP, it is important to consider reducing pressure and duration. This needs to be gradual and in tandem with baby’s response to CPAP withdrawal.

Major change in practice

- Frequent training sessions on CPAP are essential to keep skills and competency updated.
- Staff should be familiar with assembling CPAP equipment.
- Skills in improvising the equipment to provide CPAP is essential in low income settings.
- Improved record keeping.


### Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AMTSL</td>
<td>Active management of third stage of labour</td>
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<tr>
<td>AOGU</td>
<td>Association of Obstetricians and Gynecologists of Uganda</td>
</tr>
<tr>
<td>CPAP</td>
<td>Continuous positive airway pressure</td>
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<tr>
<td>CS</td>
<td>Caesarean section</td>
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<tr>
<td>EI</td>
<td>Essential interventions</td>
</tr>
<tr>
<td>FIGO</td>
<td>International Federation of Gynecology and Obstetrics</td>
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<tr>
<td>GLOWM</td>
<td>The Global Library of Women’s Medicine</td>
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<tr>
<td>HCPAs</td>
<td>Health care professionals associations</td>
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<td>ICM</td>
<td>International Confederation of Midwives</td>
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<tr>
<td>IECS</td>
<td>Institute for Clinical Effectiveness and Health Policy</td>
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<tr>
<td>IPA</td>
<td>International Pediatric Association</td>
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<tr>
<td>KMC</td>
<td>Kangaroo mother care</td>
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<tr>
<td>PGE₁</td>
<td>Prostaglandin E1</td>
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<tr>
<td>PMNCH</td>
<td>Partnership for Maternal, Newborn &amp; Child Health</td>
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<tr>
<td>PPH</td>
<td>Postpartum haemorrhage</td>
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<tr>
<td>UPA</td>
<td>Uganda Paediatric Association</td>
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<tr>
<td>UPMA</td>
<td>Uganda Private Midwives Association</td>
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<td>WHO</td>
<td>World Health Organization</td>
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This booklet can be used for the introduction/orientation of new students; it will help to show them that you need to do this, you need to do that.

Obstetrician

Most midwives wanted to first weigh and dress the baby; even in mothers it’s engrained that the baby needs to be dressed... It helps when senior colleagues do skin-to-skin, because it helps to stick in everyone’s minds!

Midwife

This booklet is easy to use and speaks for itself

Midwife

It has been emphasised that it’s good for the mother to hold her baby. For us [midwives], if you give the mother her baby when you’re suturing, it eases the work of suturing because these mothers protect their babies and concentrate on the baby while you suture, so the mother won’t focus on what you’re doing.

Skin-to-skin is done but duration is the problem! When there are no tears, that’s when the mother doesn’t get a chance to keep her baby for a long time! You want to clean the mother, for which the mother needs to turn around, and it’s more difficult to clean the mother while she holds her baby, but we need to practice more.

Midwife

Thinking about life after the project – these cards can be extremely useful for appraisals.

Pediatrician

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