UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH AND SOCIAL WELFARE

GUIDELINES FOR USE OF UTEROTONICS IN ACTIVE MANAGEMENT OF THIRD STAGE OF LABOUR

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# ABBREVIATIONS

<table>
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AGOTA</td>
<td>Association of Gynaecologists and Obstetricians of Tanzania</td>
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<tr>
<td>AMTSL</td>
<td>Active Management of Third Stage of Labour</td>
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<tr>
<td>IHI</td>
<td>Ifakara Health Institute</td>
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<tr>
<td>IM</td>
<td>Intramuscular</td>
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<tr>
<td>IU</td>
<td>International Units</td>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MOHSW</td>
<td>Ministry of Health and Social Welfare</td>
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<td>MSD</td>
<td>Medical Stores Department</td>
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<td>MUHAS</td>
<td>Muhimbili University of Health and Allied Health Sciences</td>
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<tr>
<td>PPH</td>
<td>Postpartum Haemorrhage</td>
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<tr>
<td>PRINMAT</td>
<td>Private Nurses and Midwives Association Tanzania</td>
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<tr>
<td>RCHS</td>
<td>Reproductive and Child Health Services</td>
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<tr>
<td>SMI</td>
<td>Safe Motherhood Initiative</td>
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<tr>
<td>TAMA</td>
<td>Tanzania Midwives Association</td>
</tr>
<tr>
<td>VSHD</td>
<td>Venture Strategies for Health and Development</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<td>WRATZ</td>
<td>White Ribbon Alliance Tanzania</td>
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</table>
Complications of pregnancy and childbirth are major cause of death for women of reproductive age in Tanzania. The estimated maternal mortality ratio stands at 578/100,000 live births. The major causes of maternal mortality include; sepsis, haemorrhage, hypertensive disorders of pregnancy, obstructed labour and abortion complications. Postpartum hemorrhage (PPH) is excessive bleeding from the birth canal of 500mL or more after vaginal delivery. However, in anaemic patients and small sized women, blood loss less than 500mLs can be fatal. Majority of cases of PPH occur in the immediate postpartum period (within 24 hours after delivery) and this is called primary PPH, and that occurring after 24 hours is called secondary PPH. Postpartum haemorrhage accounts for 25%-28% of all maternal deaths in Tanzania. Common causes are; Uterine atony which accounts for more than 75% of obstetric hemorrhage. Tears and lacerations of the birth canal. Retained placenta and/or clots. Haemorrhage due to uterine atony can be effectively prevented by conducting Active Management of the Third Stage of Labour (AMTSL) to all women.

Safe Motherhood program aims at improving women’s health, and specifically reduce maternal mortality and morbidity. The main strategies of the programme are to improve quality of care. The goal of this clinical guideline is to provide the health provider with a quick reference material for conducting active management of third stage of labour which has been found to reduce postpartum haemorrhage by 60%. Evidence based.

It is my sincere hope that, this guideline will be useful for health service providers, as a tool to assist in reduction of maternal morbidity and mortality.

Blandina. J. Nyoni
PERMANENT SECRETARY
MINISTRY OF HEALTH AND SOCIAL WELFARE
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[Signature]

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MINISTRY HEALTH AND SOCIAL WELFARE
GUIDELINES FOR USE OF UTEROTONICS IN ACTIVE MANAGEMENT OF THIRD STAGE OF LABOUR

1.0 INTRODUCTION

Improving maternal health and reducing maternal mortality have been key concerns of several international summits, and conferences since the late 1980s, including the millennium summit in 2000. One of the eight millennium development goals (MDGs) adopted at the millennium summit is improving maternal health. Within the MDGs’ monitoring framework, the international community committed itself to reducing the maternal mortality ratio by three quarters by 2015.

- Avoiding maternal deaths is possible even in resource-poor countries, but it requires the right kind of information on which to base strategies.
- Knowing the level of maternal mortality is not enough; we need to understand the underlying factors that lead to the deaths.
- Each maternal death has a story to tell and can provide indications on practical ways of addressing the problem.
- A commitment to act up on the findings in maternal mortality reviews is a key prerequisite for success.

1.1 POSTPARTUM HAEMORRHAGE

Postpartum haemorrhage is excessive bleeding from the birth canal of 500mL or more after vaginal delivery. However, in anemic patients and small sized women, blood loss less than 500mL can be fatal. The majority of cases of PPH occur in the immediate postpartum period (within 24 hours after delivery) and this is called primary PPH, whereas that occurring after 24 hours is called secondary PPH. Postpartum haemorrhage is one of the causes of direct maternal mortality, accounting for 25%-28% of all maternal deaths in Tanzania. Other direct causes are: hypertensive disorders of pregnancy, infection, unsafe abortion and obstructed labour.
Postpartum haemorrhage is commonly caused by:

- Uterine atony. This accounts for more than 75% of obstetric haemorrhage. Predisposing factors include: prolonged labour, grand multiparity and others.
- Tears and lacerations of the birth canal.
- Retained placenta and/or clots.
- Puerperal sepsis.

Haemorrhage due to uterine atony can be effectively prevented by conducting **Active Management of the Third Stage of Labour (AMTSL)** on all women. Steps in conducting Active Management of Third Stage of Labour include:

1. Giving a uterotonic medicine within 1 minute of birth that enhances uterine contraction.
2. Applying controlled cord traction while applying counter traction on the uterus.
3. Uterine massage: immediate massage following delivery of placenta and palpation of uterus every 15 minutes for 2 hours

Practicing this simple procedure will save lives and money by reducing the incidence of PPH, whereby the need to treat PPH by additional interventions including infusion, blood transfusion and surgical intervention will be reduced.

### 2.0 AVAILABLE UTEROTONICS FOR AMTSL

i). **Oxytocin**

*It is the preferred drug of choice for AMTSL*

Dose and route of administration: 10 IU intramuscular within 1 minute of childbirth

- Acts within 2-3 minutes
- Minimal side effects
- Affordable

ii). **Ergometrine**

Dose and route of administration: 0.5 mg intramuscular within 1 minute of childbirth

- Acts within 6-7 minutes
- Prolonged duration of action (2-4 hours)
• Contraindicated in patients with hypertension, pre-eclampsia, eclampsia, severe anemia and valvular heart diseases
• Affordable

iii). **Misoprostol**
It is a synthetic prostaglandin E₁ analogue which among other actions induces uterine contraction. When administered after delivery of the baby it prevents uterine atony and postpartum haemorrhage.

Dose and route of administration: 600 mcg orally, within 1 minute of childbirth
• Can be easily administered.
• Can also be administered through other routes: rectal, sublingual and vaginal.
• Onset of action is 4-9 minutes after oral administration (7-13 minutes after rectal).
  Its action may persist for about 3 hours.
• Does not need cold storage.
• If administered to a pregnant woman, it can cause abortion, premature labour and even rupture of the uterus.

**2.1 TREATMENT OF POSTPARTUM HAEMORRHAGE**
• Examine the patient to determine the cause of bleeding.
• If the cause of bleeding is atonic uterus then give Oxytocin 10IU IM stat, then 20 IU in 1 liter of Normal Saline or Ringer’s lactate.

**OR**
• If Oxytocin is not available give **1000 mcg of Misoprostol rectally**

**OR**
• Give 0.5mg Ergometrine IM if there is no contraindication
• If the bleeding is due to other causes like tears, retained placenta or thrombopathy, refer the patient to a higher level of health facility for definitive management. This should be after initiating resuscitative measures.

**NB Basic resuscitative measures should be started immediately, i.e. secure IV line with a wide bore cannula and start IV line with Ringer’s lactate, take blood sample for grouping and X-match and insert indwelling urethral catheter.**
2.2 PREVENTION OF PPH AWAY FROM HEALTH FACILITIES.

This refers to all births that are happening outside the health facilities. They may be assisted by relatives, birth attendants or no one. In Tanzania, only 47% of women deliver at a health facility.

It is advisable to continue to:

- Advocate for a skilled birth attendant for every woman.
- Encourage every woman to deliver at health facility.
- Ensure accessible and acceptable quality of Emergency Obstetric Care for all deliveries.
- Strengthen counseling at antenatal care visits on birth preparedness and complication readiness.
- Mobilize and sensitize communities on birth preparedness and complication readiness e.g. mobilize/sensitize male partners.
- Promote linkages between women/families and their communities and the formal health system.
- Develop emergency preparedness committees to respond to life threatening situations.
WAY FORWARD

1. Ensure availability of uterotonics for prevention of PPH at all levels of health facilities.
2. Undertake capacity building through training of health providers.
3. Include in pre-service teaching curriculum the use of uterotonics in the Active Management of Third Stage of Labour (AMTSL).
4. Medical Stores Department will stock these medicines and all health facilities will procure them from this source.
5. A letter will be written to all RM Officers in Tanzania mainland informing them of the guideline.
ANNEXES

I. LEVELS OF AVAILABILITY AND USE OF VARIOUS UTEROTONICS

It is recommended that Oxytocin, Ergometrine and Misoprostol should be available in all health facilities from National and Referral hospitals to dispensaries where deliveries take place.

<table>
<thead>
<tr>
<th>Health Facility Level</th>
<th>Type of Uterotonic</th>
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<tr>
<td>National and referral hospitals</td>
<td>Oxytocin, Misoprostol &amp; Ergometrine</td>
</tr>
<tr>
<td>District hospitals</td>
<td>Oxytocin, Misoprostol &amp; Ergometrine</td>
</tr>
<tr>
<td>Health centers</td>
<td>Oxytocin, Misoprostol &amp; Ergometrine</td>
</tr>
<tr>
<td>Dispensaries</td>
<td>Oxytocin, Misoprostol &amp; Ergometrine</td>
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II. JOB AID FOR OXYTOCIN USE FOR PREVENTION OF POSTPARTUM HAEMORRHAGE

- Within 1 minute of delivery of the baby, palpate the abdomen to rule out the presence of an additional baby or babies. Then give Oxytocin 10 IU IM

- Clamp the cord close to perineum using sponge, holding forceps.

- Place the other hand just above the woman’s pubic bone and stabilize the uterus by applying counter traction during controlled cord traction. This helps prevent inversion of the uterus.

- Keep slight tension on the cord and await a strong uterine contraction (2 – 3 minutes).

- When the uterus becomes rounded or cord lengthens, pull the cord gently downward to deliver the placenta. **Do not wait for a gush of blood.**

- When the placenta is out, immediately massage the funds of the uterus through the abdomen until the uterus is rounded.

- Repeat massage every 15 minutes for the first 2 hours.

- Ensure that the uterus does not become relaxed (soft) after you stop uterine massage.
III. JOB AID FOR MISOPROSTOL USE FOR PREVENTION OF POSTPARTUM HAEMORRHAGE

Ensure 3 tablets of Misoprostol (600mcg) are at hand during 2nd stage of labour

↓

Deliver the fetus

↓

Palpate the uterus– are there any more fetus(es)?

↓

NO

Administer 600 mcg misoprostol orally to the patient within 1 minute of delivery

↓

Deliver the placenta by controlled cord traction with counter pressure to the uterus

↓

Massage the uterus every 15 seconds for 2 hours

↓

YES

Complete delivery of fetus(es)

***In the event of fever and shivering, give an antipyretic, e.g. Paracetamol

WARNING: DO NOT REPEAT DOSE OF MISOPROSTOL IF PPH OCCURS.
IV. TREATMENT OF POSTPARTUM HAEMORRHAGE USING MISOPROSTOL (WHERE PATIENT HAS NOT PREVIOUSLY RECEIVED MISOPROSTOL)

In the event of PPH, examine the patient

If uterus is flabby

Administer 1000 mcg misoprostol (5 x 200mcg) into the rectum

If bleeding persists, **do not repeat dose** of misoprostol

If other causes, manage accordingly

If bleeding persists

REFER, as appropriate

***In the event of fever and shivering, give an antipyretic, e.g. Paracetamol***