# GUIDELINES FOR USE OF MISOPROSTOL IN GYNAECOLOGY AND OBSTETRICS

The recommendations of the Sri Lanka College of Obstetricians and Gynaecologists (SLCOG) for proper and safe use of MISOPROSTOL TABLET are given below, please ensure to follow this guideline when prescribing Misoprostol tablets.

Misoprostol is a synthetic analogue of prostaglandin E1. At the recommended dosages, misoprostol induces contractions of the smooth muscle fibers in the myometrium and relaxation of the uterine cervix. The uterotonic properties of misoprostol should facilitate cervical dilation and evacuation of intrauterine contents.

Preparation - 200mcgm tablet.

**Contraindications**

- Known hypersensitivity to misoprostol or any other prostaglandin.
- Known or suspected coagulation disorders and during treatment with anticoagulants.
- Uncertainty about pregnancy viability.
- Suspected ectopic pregnancy.

**Precautions**

- Misoprostol should not be administered if an intrauterine contraceptive device is present. It should be removed first.
- Uterine hyperstimulation and rupture have been reported beyond the first trimester. Therefore lower dosage of Misoprostol is required in second and third trimester.
- Rare serious cardiovascular accidents have been reported following the administration of the prostaglandin including Misoprostol. For this reason, women with risk factors for cardiovascular disease or established cardiovascular disease should be treated with caution.
- Epileptic seizures have been reported with the use of prostaglandin and prostaglandin analogues. This possibility should be born in mind if Misoprostol is administered in patients with a history of epilepsy.
- Bronchospasms may occur with the use of some prostaglandins and prostaglandin analogues. The possibility of this complication should be born in mind in patients with history of asthma.

**Teratogenicity**

- Use of Misoprostol has been associated with birth defects. Suspected anomalies include malformation of limb and cranial nerve defects.

**Use during lactation**

- Misoprostol is rapidly metabolized in the mother to misoprostol acid, which is biologically active and is excreted in breast milk. Misoprostol should not be administered to breastfeeding mothers because the excretion of misoprostol acid could cause undesirable effects such as diarrhea in breastfeeding infants.

**Adverse effects**

- Gastrointestinal disorders; nausea (transient and mild), vomiting, diarrhea, abdominal pain.
- Reproductive system disorders; very frequent uterine contractions with pain observed in the hours following Misoprostol intake; vaginal bleeding, sometimes heavy and prolonged.
- General disorders; headache, dizziness, and chills with fever.

**Use in first and second trimesters**

Evidence demonstrate advantages of Misoprostol over available alternatives for use in management of miscarriage in first and second trimesters. The advantages are that while it is as effective as alternatives, there are fewer side effects, more practical to use and is cheaper.

Because of its abortive properties, Misoprostol should not be used until a non-viable status pregnancy is confirmed.

There is evidence that, between 13 to 26 weeks, the risk of uterine rupture among women with a prior cesarean delivery using misoprostol is less than 0.3%.

It is not recommended to use Misoprostol after 20 Weeks of Gestation in the presence of a uterine scar (suspected perforation, past caesarean section or myomectomy)

**Use in the third trimester**

Misoprostol is used extensively in the third trimester in many countries. Advantages include the low cost, storage at room temperature and long shelf life. **Caution should be exercised however since the dosage used in the third trimester is much less than in the dosage in the first trimester.**

There is considerable literature evaluating the use of Misoprostol for cervical ripening and induction of labour. The potential risks and benefits in each individual case should be carefully evaluated and

attention paid to the published information regarding minimization of dosage. as with the other prostaglandin misoprostol can cause uterine hypertonicity.

The SLCOG recommends the use of Misoprostol in the third trimester only in patients with death in utero. It is contraindicated in the presence of a uterine scar. At present when the baby is alive the use of misoprostol for induction of labour at the appropriate dosage is only recommended in a research setting. The SLCOG will review this decision from time to time.

## Use of Misoprostol for retained placenta

The use of misoprostol for the treatment of retained placenta following live birth has not shown any benefit over placebo. SLCOG therefore do not recommend misoprostol for management of retained placenta in late pregnancy.

### Use in the post-partum period

Misoprostol is an effective uterotonic and can achieve sustained uterine contraction in the third stage. However, there is insufficient evidence to recommend misoprostol over conventional injectable uterotonics in the management of the third stage of labour.

Misoprostol may be used for the management of postpartum haemorrhage to compliment the action of standard oxytocic drugs (oxytocin and ergometrine) but not as a substitute for these drugs for this indication.

Particular care has to be taken to use misoprostol according to the regimens in each trimester for which evidence is available. Prior to administration of the drug ensure that appropriate informed consent is obtained from women.

Procedure for use of Misoprostol:

1. The decision to use the relevant drug (eg: Misoprostol) and the responsibility for the administration of it will be with the consultant Obstetrician and Gynaecologists.
2. The dosage and the route of administration should be by instructions from the consultant and should be documented clearly.
3. The patient should have the informed choice of its use following adequate counselling on the use of the drug including the indication and methodology of its use, adverse effects etc. Followed by obtaining written informed consent for its use.
4. Adequate separate record keeping should be ensured on the use of the drug including the presence of any serious adverse effects.
5. Any adverse effects should be reported to the Sri Lanka College Of Obstetricians and Gynaecologists and the Ministry of Health.
6. The hospital drug supply system will monitor the supply and usage in the wards with appropriate record keeping.

7. The patient should be informed not to travel far away from the hospital where the drug is administered until complete expulsion of the products of conception is confirmed by ultrasound scanning.
8. She should receive precise instructions on the action to be taken in the event of any problems occurring. Particularly in the case of heavy vaginal bleeding.
9. Misoprostol should not be used in the presence of infection since cases of serious bacterial infection, including very rare cases of fatal septic shock have been reported following the use of misoprostol.
10. Avoid use in case of confirmed or suspected molar pregnancy.

**The following table include the recommended dosage in different conditions and Trimesters**

| | Indication | Dosage | Notes |
|---|---|---|---|
| First Trimester<br><br>< 13 weeks gestation | Silent/Delayed miscarriage-1st Trimester | 800mcg vaginally 3hrly (max * 2) or sublingual<br>600mcg 3hrly (max*2) | Give 2 doses and leave for 2 weeks unless heavy bleeding or infection. |
| | Incomplete miscarriage -1st Trimester | 600mcg orally single dose or<br>400mcg sublingual single dose<br>Or 400-600mcg vaginally single dose | Leave for 2 weeks unless heavy bleeding or infection. |
| | Cervical preparation – pre instrumentation<br>Eg: resection of myomas | 400mcg vaginally 3hrs before or sublingually I hr before procedure | Use in selected cases for insertion of intrauterine devices<br>Dilatation and curettage in hysteroscopy |
| Second Trimester<br><br>13-26 weeks | Mid trimester fetal death | Intrauterine fetal death 400mcg Vaginally/Sublingually/Buccal (in the cheek) 4- 6 hourly maximum 4 doses | Reduce doses in women in previous section<br>For fetal death in the third trimester see induction of labour and death in utero below |
| Second Trimester<br><br>13-26 weeks | Inevitable miscarriage | 200mcg<br>Vaginally<br>8hrly/Sublingually/Buccal(in the cheek) 6 hourly maximum 4 doses | |

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| Over 26 weeks | Pre induction ripening of cervix and induction of labour (IOL) for a live viable fetus at term | 25mcg orally 2 hourly or 25mcg vaginally 6 hourly | Research on feasibility and generalizability is strongly recommended. Not recommended for routine use currently until further evidence is available. Do not use in a scarred uterus or in a grand multipara. |
| | Pre induction ripening of cervix and IOL for death in utero after 26 weeks gestation. | 25mcg orally 2 hourly or 25mcg vaginally 6 hourly. | Research on feasibility and generalizability is strongly recommended. Not recommended for routine use currently until further evidence is available. Do not use in a scarred uterus or in a grand multipara. |
| Postpartum | Post-Partum Haemorrhage(PPH) Prophylaxis | 600mcg orally single dose | Not recommended in Sri Lanka as it is not as effective as oxytocin. |
| | Post-Partum Haemorrhage (PPH) Treatment | 800mcg sublingually single dose | As an adjunct / second line drug for the total care of such women. |

Notes:

The use of a loading dose of misoprostol is not necessary. There is no advantage to the use of moistened over dry misoprostol.