Labetalol IV for Hypertensive Disorders of Pregnancy Protocol MATY077c	
Type: Protocol	HDSS Certification Standard:
Issued by: Maternity PPG Group	**Version:** 1.2
Applicable to: Hutt Valley DHB	**Contact person:** CHOD O&G
Lead DHB: Hutt Valley DHB	**Level:**

Hutt Maternity Policies provide guidance for the midwives and medical staff working in Hutt Maternity Services. Please discuss policies relevant to your care with your Lead Maternity Carer.

To be read in conjunction with Hypertensive Disorders of Pregnancy (HDP) including Pre-eclampsia 2020 (MATY077)

Purpose:

The purpose of this protocol is to:

- Provide safe and effective care for women/pregnant people
- Establish a local approach to care that is evidence based and consistent
- Inform good decision making

Scope:

For the purposes of this document, staff will refer to:

All staff within Hutt Valley DHB. This includes staff not working in direct contact with patients/consumers. Staff are taken to include anyone engaged in working to the Hutt Valley DHB. This may include but is not limited to:

- Employees irrespective of their length of service
- Agency workers
- Self-employed workers
- Volunteers
- Consultants
- Third party service providers, and any other individual or suppliers working in Hutt Maternity, including Lead Maternity Carers, personnel affiliated with third parties, contractors, temporary workers and volunteers
- Students

Abbreviations and Definitions:

BP Blood pressure

IV Intra-venous

RMO Registered Medical Officer

SMO Senior Medical Officer

Labetalol IV for Hypertensive Disorders protocol Content

Labetalol - Intravenous Administration Procedure

⚠ One-on-one midwifery care required

Indication

- Emergency management of severe hypertension BP ≥ 160/110

Contraindications (see policy)

- Maternal cardiac disease
- Known hypersensitivity to labetalol

Risks

- Maternal hypotension, with impaired placental blood flow, fetal compromise
- Cautious use in presence of fetal growth restriction, severe pre-eclampsia, maternal hypovolaemia and epidural analgesia

Procedure

1. Transfer to Birthing Suite
2. Commence Electronic Fetal Monitoring
3. Discuss the patient with the Obstetric SMO
4. RMO review and, if indicated, repeat the loading dose and/or commence a labetalol infusion.

Labetalol loading dose

Preparation

- 1mg / ml solution should be used
- Dilute 50 mg of intravenous labetalol (i.e. 10ml from ampoule 100mg / 20ml) in 40ml of normal saline (→ 50 mg of labetalol in 50 ml = 1mg / 1ml solution).
- Attach a completed medication added label to the 50 ml syringe.

Administration

- Administer initial loading dose of 10-20mg of intravenous labetalol (i.e. 10-20ml from prepared loading solution) by slow intravenous injection over a period of 2 minutes, to avoid a sudden decrease in blood pressure
    - ➢ If there is suspected pre-eclampsia-related hypovolaemia, the lower dose is recommended and maternal volume expansion should be considered with normal saline.
- This may be the only treatment required to control the blood pressure.

- The aim is to achieve a blood pressure of systolic 130-150 mmHg and diastolic 80-100 mmHg or lower
- If necessary, after 10 minutes observation, the registrar/consultant may administer another one or two bolus dose of 10-20mg (10-20ml of leading dose solution).

Monitoring

- A complete set of baseline observations should be taken, then every 15 minutes or as clinically indicated
- Ensure a change in **MEWS parameters (exception)** is documented during the IV administration due to the number of blood pressure checks. Amend MEWS exception once BP stable
- BP to be taken on manual sphygmomanometer: repeat every 5 minutes for 20 minutes, then reduce to 30 minutes until stable
- Continuous electronic fetal monitoring is maintained throughout

Continuous labetalol infusion

- If further treatment is required a continuous labetalol infusion may be prescribed following discussion with the consultant Obstetrician. A 1mg / ml solution should be used.

Preparation

- Add 200 mg (40mls = 2 ampoules of 100mg / 20ml ampoule of labetolol) to 160 ml of normal saline.
- The resultant 200ml solution contains 200mg labetalol hydrochloride (1mg/ml).
- The **IV labetalol infusion MUST be double-checked by a senior midwife** prior to being connected to the woman/person, with specific attention to the '5 rights' and the IV line.

Administration

- A normal saline mainline infusion is commenced.
- Using an electronic pump, the labetalol infusion is connected to the side arm of the normal saline infusion.
- The infusion is then started at a rate of 20mg/hour (20ml/hour)
- Double the rate of infusion every 30 minutes until a satisfactory response is obtained or a dose of 160mg/hour (160ml/hour) is reached. Occasionally higher doses may be necessary.
- The aim is to achieve a blood pressure of 135/85 mmHg or lower (NICE 2019)
- When the blood pressure has stabilised, i.e. there has been a decrease in diastolic blood pressure to 100mmHg or less and this has been sustained for 15 minutes, reduce the labetalol every 15 minutes by 1mg/hr.

Monitoring

Maternal

- Blood pressure and pulse every 15 minutes, and record on the MEWS chart
- Insert an indwelling catheter with an hourly urine bag attached.

- Strict fluid input and output is recorded on the MEWS chart.
- Report any changes in the woman's/person's condition immediately to the Obstetric RMO (escalate to SMO if concerns).

Note: Do not use an automated device if blood pressure recordings are very high or very low, as they tend to under estimate blood pressure recordings. An automated device is only recommended if the blood pressure is within normal limits. Regular manual checks are mandatory.

Fetal

- Ensure continuous fetal monitoring (CTG) while IV labetalol is in progress.
- Once the maternal diastolic blood pressure is stabilised (blood pressure 135/85mmHg or lower) reduce the level of monitoring following consultation with the Obstetric RMO and/or SMO.

Related Documents:

- Hypertensive Disorders of Pregnancy (HDP) including pre-eclampsia MATY077
- Intravenous labetalol use for severe maternal hypertension policy MATY082
- Acute Management of Eclampsia MATY053

Keywords for searching:

1. Labetalol
2. Hypertension
3. Eclampsia
4. MATY077c

Informed Consent:

The right of a consumer to make an informed choice and give informed consent, including the right to refuse medical treatment, is enshrined in law and in the Code of Health and Disability Consumers' Rights in New Zealand. This means that a woman can choose to decline treatment, referral to another practitioner, or transfer of clinical responsibility. If this occurs follow the process map on page 18 of the Referral Guidelines (Ministry of Health, 2012).

Tangata Whenua Statement:

The Women's Health Service recognises the rights and responsibilities of Māori as tangata whenua and Treaty Partners. This allows and acknowledges the importance of cultural diversity in all aspects of our care and practice in Aotearoa New Zealand.

As stated in Te Pae Amorangi (Hutt Valley DHB Māori Health Strategy) 2018-2027, Hutt DHB as a Crown agency is committed to our role in maintaining active relationships with iwi, under Te Tiriti o Waitangi. This strategy recognises the established principles of Partnership, Participation and Protection and recognises steps towards the reviewed interpretation of Te Tiriti principles to date

(from the Wai 2575 claim into health). These are tino rangatiratanga, equity, active protection, partnership and options.

Attention in particular is drawn to:

- **Article one – Kāwanatanga**: actively engaging and working alongside with local iwi through the Hutt Valley Māori Health Unit
- **Article two – Tino Rangatiratanga**: Self-autonomy, self-determination; the responsibility to enable Māori to exercise their authority over their own health, determinants and definition of health
- **Article three – Ōritetanga**: equal health outcomes of peoples; ensuring that policy, guidelines or programmes do not further perpetuate any inequity
- **Article four (the 'oral clause') – Wairuatanga**: spirituality; thriving as Māori and the importance of health providers understanding health in te ao Māori (the Māori world), acknowledging the interconnectedness and inter-relationship of all living and non-living things.