Louth: Antimicrobial Guidelines - Louth Hospitals: Antimicrobial Guidelines: Neonatal - ■Metronidazole IV

Neonatal - MetroNIDAZOLE IV

Antimicrobial with activity against anaerobic bacteria and protozoa [1].

MEDICATION SAFETY ISSUES

- Anaphylaxis has been reported rarely with metronidazole [2].
- Sound-alike/Look-alike issues: Metronidazole may be confused with metformin, meropenem [3,4].

USES

Infections for which anaerobic cover required, such as Necrotising Enterocolitis (NEC) [1].

PRESENTATION

Metronidazole 5mg/ml Solution for Infusion [2]

DOSAGE [1]

Age	Dose	Frequency
Neonate less than 26 weeks corrected gestational age	Single loading dose 15mg/kg followed after 24 hours by 7.5mg/kg each dose	Every 24 hours
Neonate 26 - 34 weeks corrected gestational age	Single loading dose 15mg/kg followed after 12 hours by 7.5mg/kg each dose	Every 12 hours
Neonate over 34 weeks corrected gestational age	Single loading dose 15mg/kg followed after 8 hours by 7.5mg/kg each dose	Every 8 hours
Child 1 - 2 months	Single loading dose 15mg/kg followed after 8 hours by 7.5mg/kg each dose	Every 8 hours
Child 2 – 3 months	7.5mg/kg (max 500mg)	Every 8 hours

Hepatic Impairment

Dose reduction may be required in hepatic impairment [1]. Refer to BNFc and seek advice on assessment of liver function [1].

RECONSTITUTION

Metronidazole 5mg/ml solution for infusion is already in liquid form. There is no need to further dilute the infusion solution [2,5,6].

ADMINISTRATION

Give by IV infusion over one hour [1,2,5,7].

SAMPLE CALCULATION

2.8kg neonate corrected gestational age 40 weeks with suspected NEC.

Dose 15mg/kg as a single loading dose followed after 8 hours by 7.5mg/kg every 8 hours.

- 15mg/kg = 42mg. Withdraw 8.4ml metronidazole from the bag and give over one hour.
- 7.5mg/kg = 21mg. Withdraw 4.2ml metronidazole from the bag and give over one hour.

STORAGE

Store at room temperature below 25 ^{o} C. Keep container in the outer carton to protect from light. Once infusion solution opened, it must be used immediately. Discard any unused portions. [2,5].

MONITORING

- Monitor liver function tests as dose reduction may be required in hepatic impairment [1].

- Appropriate clinical and laboratory monitoring (especially of full blood count) are advised if administration of metronidazole for more than 10 days is considered necessary [2,5].

ADVERSE EFFECTS

Gastro-intestinal disturbances (including nausea and vomiting), taste disturbances, furred tongue, oral mucositis, anorexia; *very rarely* hepatitis, jaundice, pancreatitis, drowsiness, dizziness, headache, ataxia, psychotic disorders, darkening of urine, thrombocytopenia, pancytopenia, myalgia, arthralgia, visual disturbances, rash, pruritus, and erythema multiforme; on prolonged or intensive therapy peripheral neuropathy, transient epileptiform seizures, and leucopenia; also reported aseptic meningitis, optic neuropathy [1]. Anaphylaxis reported rarely [2].

REFERENCES

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Summary of Changes from Previous Versions

Date	Change
Feb 2021: Rev. No. 1	Updated based on Rotunda MetroNIDAZOLE Monograph Jan 2019. Changes to OLOL monograph: • References updated.
August 2015	This is the first version of this guideline.