Supplementary prescribing information for Buccal midazolam (Buccolam®).

Adapted from previous Barnsley Amber G guideline.

Buccal midazolam is Amber in the South Yorkshire Shared Care guidelines for the management of epilepsy in children **Epilepsy - Anti-epileptics in Children Shared care guideline (barnsleyccg.nhs.uk)**

The details of side-effects, cautions, contraindications and interactions are not a complete list and the current BNF (https://bnfc.nice.org.uk/drugs/midazolam/medicinal-forms/#oromucosal-solutionand the SPC (https://www.medicines.org.uk/emc/) remain authoritative.

Background Information	**Buccolam®** is used in Barnsley for patients aged between 3 months and 18 years. Patients over 18 years of age are prescribed Epistatus® as an **'off- label' indication**. Epistatus® is licenced for patients between 10 and 18 years. **Please Note:** the two brands are **NOT** interchangeable. They are different concentrations so could result in administration of the wrong dose. • Please prescribe by **BRAND NAME** to reduce the risk of error **NICE Clinical Guideline NG217: Epilepsy in children, young people and adults (Published 27th April 2022) advises:** • If the person with convulsive epilepticus has an individualised emergency management plan that is immediately available, administer medication as detailed in the plan. • If the person with convulsive status epilepticus does not have an individualised emergency management plan immediately available: ➢ give a benzodiazepine (buccal midazolam or rectal diazepam) immediately as first line treatment in the community or ➢ use intravenous lorazepam if intravenous access and resuscitation facilities are immediately available.
BNF therapeutic class	Status Epilepticus
Indication	**Indication/Licensing information** • Buccolam® is licensed for the treatment of prolonged convulsive seizures in patients aged 3 months to less than 18 years. For infants between 3-6 months of age treatment should be in a hospital setting where monitoring is possible and resuscitation equipment is available.[1]

<table>
<tr><td>Dosage and administration</td><td>
<table>
<tr><th>Age</th><th>Dosage</th><th>Comments</th></tr>
<tr><td>3-6 months
Hospital setting only</td><td>2.5mg
(0.5ml)</td><td>In infants less than 6 months buccal midazolam should only be used within a hospital and where equipment is available for resuscitation and monitoring of the patient due to an increased risk of respiratory depression.[3]</td></tr>
<tr><td>> 6 months
- <12 months</td><td>2.5mg
(0.5ml)</td><td>Available as Buccolam® pre-filled Syringe 2.5mg in 0.5ml. (Yellow label)</td></tr>
<tr><td>1 year - < 5 years</td><td>5mg (1.0ml)</td><td>Available as Buccolam® pre-filled syringe 5mg in 1.0ml. (Blue label)</td></tr>
<tr><td>5 years - <10 years</td><td>7.5mg
(1.5ml)</td><td>Available as Buccolam® pre-filled syringe 7.5mg in 1.5ml (Purple label)</td></tr>
<tr><td>10 years to <18 years</td><td>10mg
(2.0ml)</td><td>Available as Buccolam® pre-filled syringe 10mg in 2.0ml (Orange label)</td></tr>
</table>
Buccolam® is for oromucosal use. The full amount of solution should be inserted slowly into the space between the gum and the cheek. Laryngo-tracheal insertion should be avoided to prevent accidental aspiration of the solution. If necessary (for larger volumes and/or smaller patients), approximately half the dose should be given slowly into one side of the mouth, then the other half given slowly into the other side.
Carers should only administer a single dose of midazolam. If the seizure has not stopped within 10 minutes after administration of midazolam, emergency medical assistance must be sought and the empty syringe given to the healthcare professional to provide information on the dose received by the patient.
</td></tr>
<tr><td>Precautions for use</td><td>No needle, intravenous tubing or any other device for parenteral administration should be attached to the oral syringe,

Buccolam® is not for intravenous use.

The oral syringe cap should be removed before use to avoid risk of choking.</td></tr>
<tr><td>Cautions</td><td>Midazolam should be used with caution in patients with chronic respiratory insufficiency because midazolam may further depress respiration.

Midazolam should be used with caution in patients with impaired cardiac function as it may cause decreased clearance of midazolam.

Debilitated patients are more prone to the central nervous system (CNS) effects of benzodiazepines and, therefore, lower doses may be required.

Midazolam should be avoided in patients with a medical history of alcohol or drug abuse.
Midazolam may cause anterograde amnesia.</td></tr>
<tr><td>Renal and Hepatic impairment</td><td><u>Renal impairment</u>

No dose adjustment is required, however, Buccolam® should be used with caution in patients with chronic renal failure as elimination of midazolam may be delayed and the effects prolonged.

<u>Hepatic impairment</u>

Hepatic impairment reduces the clearance of midazolam with a subsequent increase in terminal half-life. Therefore, the clinical effects may be stronger and prolonged, hence careful monitoring of the clinical effects and vital signs is recommended following administration of midazolam in patients with hepatic impairment.

Buccolam® is contraindicated in patients with severe hepatic impairment</td></tr>
<tr><td>Contraindications</td><td>• Hypersensitivity to the active substance, benzodiazepines or to any of the excipients.
• Myasthenia gravis</td></tr>
</table>

	• Severe respiratory insufficiency • Sleep apnoea syndrome • Sever hepatic impairment
Pregnancy and breast feeding	*Pregnancy* No data on exposed pregnancies are available for the first two trimesters of pregnancy. The administration of high doses of midazolam in the last trimester of pregnancy or during labour has been reported to produce maternal or foetal adverse reactions (risk of aspiration of fluids and stomach contents during labour in the mother, irregularities in the foetal heart rate, hypotonia, poor suckling, hypothermia and respiratory depression in the new-born infant). Midazolam may be used during pregnancy if clearly necessary. The risk for new-born infants should be taken into account in the event of administration of midazolam in the third trimester of pregnancy. *Breast feeding* Midazolam is excreted in low quantities (0.6%) in human milk. As a result, it may not be necessary to stop breast feeding following a single dose of midazolam.
Adverse Drug Reactions	The most common side effects with Buccolam® (seen in 1/100 to 1/10) are sedation, somnolence, depressed levels of consciousness, respiratory depression and nausea and vomiting.
Monitoring	There are no baseline or routine monitoring requirements. Disease monitoring – The patient will be reviewed by the Specialist service at least annually. Patients also have access to Epilepsy specialist nurses as required. Report side effect to the MHRA via the yellow card reporting site. Available at: https://www.medicines.org.uk/emc/search?q=buccolam
Interactions	Midazolam is metabolized by CYP3A4. Inhibitors and inducers of CYP3A4 have the potential to respectively increase and decrease the plasma concentrations and, subsequently, the effects of midazolam thus requiring dose adjustments accordingly. Careful monitoring of the clinical effects and vital signs is recommended during the use of midazolam with a CYP3A4 inhibitor even after a single dose. (Refer to SPC for details of specific drugs:

Contact names and details

Contact Details	Telephone number	Email
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Equality and diversity

- no special considerations

References

1. Summary of Product Characteristics: Buccolam®. Available at: https://www.medicines.org.uk/emc/search?q=buccolam <Accessed 24.10.2023>
2. NICE Clinical Guideline NG217: Epilepsies in children, young people and adultsPublished 27th April 2022. Available at:https://www.nice.org.uk/guidance/ng217/chapter/7-Treating-status-epilepticus-repeated-or-cluster-seizures-and-prolonged-seizures <Accessed 23.10.2023>

Buccal midazolam supplementary prescribing information (Buccolam®)

3. Buccolam® product information, European Medicines Agency. 31/07/2023. Available at: http://www.ema.europa.eu/ema/index.jsp?curl=pages/medicines/human/medicines/002267/human_med_001479.jsp&mid=WC0b01ac058001d124&murl=menus/medicines/medicines.jsp&jsenabled=true. <Accessed 23.10.2023>
4. MHRA Buccolam® alerts. Available at :https://www.gov.uk/drug-device-alerts?keywords=buccolam. <Accessed 23.10.2023>
5. Responsibility for prescribing between Primary and Secondary care. Available at:https://www.england.nhs.uk/wp-content/uploads/2018/03/responsibility-prescribing-between-primary-secondary-care-v2.pdf.<Accessed 23.10.2023>