

SYRINGE DRIVER MEDICATION IN PALLIATIVE CARE

Further advice from:-

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DRUG	INFORMATION AND DOSES FOR SUBCUTANEOUS USE	COMPATIBILITY WITH DIAMORPHINE	COMMENTS
DIAMORPHINE *	<u>INDICATION</u> - Pain control. <u>DOSE</u> 1/3 of 24 hour oral Morphine dose.	Not applicable.	<ul style="list-style-type: none"> <li>Opioid of choice for S/C route</li> <li>Highly soluble</li> </ul>
CYCLIZINE	<u>INDICATION</u> – Nausea/vomiting due to intestinal obstruction or intracranial disease. <u>DOSE</u> 50 – 150 mg/24 hours	In 1 ml of solution you can place up to 10 mg of Cyclizine with up to 20 mg of Diamorphine.	<ul style="list-style-type: none"> <li>Can cause irritation at S/C site</li> <li>Anticholinergic side effects</li> <li>Reduces peristalsis – blocks prokinetic agents</li> </ul>
HALOPERIDOL	<u>INDICATION</u> – Opioid/metabolic induced nausea/vomiting. <u>DOSE</u> 1.5 – 5 mg/24 hours.  <u>INDICATION</u> – Control of acute psychosis. <u>DOSE</u> 5 - 30 mg/24 hours.	In 1 ml of solution you can place up to 1.5 mg Haloperidol with up to 50 mg of Diamorphine	<ul style="list-style-type: none"> <li>Extrapyramidal side effects at higher doses</li> <li>Antipsychotic</li> <li>Long half life</li> </ul>
HYOSCINE BUTYLBROMIDE (BUSCOPAN®)	<u>INDICATION</u> – Intestinal obstruction (colic and vomiting) <u>DOSE</u> 20 – 180 mg/24 hours	In 1 ml of solution you can place up to 20 mg of Hyoscine Butylbromide with up to 150 mg of Diamorphine	<ul style="list-style-type: none"> <li>No central side effects – not sedative</li> <li>Reduces intestinal colic and peristalsis</li> <li>Some antisecretory effect in GI tract</li> </ul>
HYOSCINE HYDROBROMIDE *	<u>INDICATION</u> – Bronchial hypersecretion <u>DOSE</u> - 0.4 – 2.4 mg/24 hours	In 1 ml of solution you can place up to 1 mg of Hyoscine Hydrobromide with up to 150 mg of Diamorphine	<ul style="list-style-type: none"> <li>Sedative</li> <li>Can cause agitation and confusion if patient not also receiving Diamorphine</li> </ul>

METOCLOPRAMIDE	<u>INDICATION</u> – Nausea/vomiting due to gastric stasis/outlet obstruction <u>DOSE</u> 20 – 60 mg/24 hours	In 1 ml of solution you can place up to 5 mg Metoclopramide with up to 150 mg Diamorphine	<ul style="list-style-type: none"> <li>• Prokinetic – increases peristalsis</li> <li>• Not to be used where complete intestinal obstruction is suspected or patient has colic</li> <li>• Extrapyramidal side effects</li> </ul>
METHOTRIMEPRAZINE *	<u>INDICATION</u> – 3 <sup>rd</sup> line for nausea/vomiting <u>DOSE</u> 6.25 mg – 25 mg/24 hours  <u>INDICATION</u> – Terminal restlessness <u>DOSE</u> 50 – 300 mg/24 hours	In 1 ml solution you can place up to 10 mg of Methotrimeprazine with up to 50 mg of Diamorphine	<ul style="list-style-type: none"> <li>• Broad spectrum antiemetic but sedating (start low dose for nausea)</li> <li>• Reduces seizure threshold</li> <li>• May be used at end of life for nausea and if sedation is required.</li> </ul>
MIDAZOLAM	<u>INDICATION</u> – Terminal restlessness <u>DOSE</u> 5 – 30 mg/24 hours up to 100 mg/24 hours if heavy sedation required	In 1 ml of solution you can place up to 5 mg of Midazolam with up to 30 mg of Diamorphine	<ul style="list-style-type: none"> <li>• Anxiolytic (5 – 10 mg/24 hours)</li> <li>• Muscle relaxant (5 – 10 mg/24 hours)</li> <li>• Anticonvulsant (20 – 30 mg/24 hours)</li> </ul>

NOTES – Many of the drugs above are unlicensed for subcutaneous administration however those listed have been recognised as compatible via this route.

\* (Licensed for subcutaneous administration)

There are several recommendations involved for non-licensed indications or routes

To ensure the combinations are as safe as possible:-

- Do not mix more than two drugs in a syringe
- Change every 24 hours
- Dilute with water for injection unless otherwise stated
- Check the syringe for particulate contamination
- Check syringe and driver at regular intervals - > as per policy
- Check site of infusion for local irritation and adverse reaction
- If a patient has uncontrolled symptoms – give a stat dose injection when the driver is started or medication changes.
- Prescribe rescue doses by S/C injection for breakthrough symptoms – via portal on giving set.

#### Additional

Oxycodone is available parenterally. As this is a new route at present we are uncertain of compatibilities. It should be used in the same manner as Diamorphine taking particular care with drug combinations and observing for particulate. It is licensed for subcutaneous route.