

A syringe driver is a small, portable battery-powered pump. It administers drugs under the skin (SC) by continuous infusion. It is a different way of giving drugs with little impact on patient mobility or independence. By maintaining steady drug levels in the blood, a syringe driver may improve symptom control. The syringe driver is not only for patients who are in the final stages of their illness. If the problem resolves, it may be possible to return to using oral medications.

<p>Indications for, starting & continuing to use, a Syringe Driver</p> <ul style="list-style-type: none"> • Persistent vomiting, with or without nausea. • Difficulty swallowing (e.g. oral tumours, sores, infections or dysphagia). • Intestinal obstruction. • Poor absorption of oral drugs is rare, but can be seen with ascites or end stage heart failure when the bowel is thought to be oedematous. • Weak, fatigued or unconscious patient. • Administration of drugs that cannot be given by another route. 	<p>Patient, family and carers</p> <p>Before setting up the syringe driver; explain to the patient and family the reason for using it, how it works and the risk of infusion site reactions. Provide a patient information leaflet where available. Also;</p> <ul style="list-style-type: none"> • What action to take if the alarm sounds. • Who to contact if in need of help and advice. • Basic information on the drugs being given.
<p>Dosing ‡</p> <p>Doses should be chosen after considering:</p> <ul style="list-style-type: none"> • Previous oral medications, if any, e.g. opioids, anti-psychotics, benzodiazepines. • Patient response to oral & SC PRN medications in the last 24hrs. • Renal function, particularly if the eGFR is <30. • Intended purpose of medication. Aim to control symptoms, not sedate. • Always start at the lower end of the dose range, unless advised by a prescriber. <p>In the community setting, dose ranges may be prescribed.</p> <ul style="list-style-type: none"> • The reason for any change in dose administered should be recorded. • A good range should allow no more than two 50% increases before requiring a prescriber review. <p>When increasing a syringe driver dose or range please consider whether PRN doses will also need to be increased.</p>	<p>Practical Points – Green Book Page 88</p> <ol style="list-style-type: none"> 1. Dependent on the half-life of the drug being administered via syringe driver, the delay between starting / changing the dose of the medication and the full clinical effect will vary; ranging from hours to days. Continue to use PRN meds in the meantime. 2. Management of infusion site reactions – see Green Book. Cyclizine & levomepromazine are irritant, esp. at higher doses; dilute with WFI as much as possible. 3. If precipitation (cloudy mixture) occurs – see Green Book & Trust Policies. 4. The MHRA recommends Duracell MN 1604 batteries for the McKinley T34 Syringe Driver.
<p>Drug compatibilities</p> <p>Water for injection (WFI) is the commonest diluent, <i>however</i> 0.9% saline may be used for several rarely used and specialist drugs.</p> <p>NB. 0.9% saline is incompatible with cyclizine</p> <p>All commonly used End of Life drug combinations are compatible. If using cyclizine and hyoscine butylbromide together then use maximum diluent in a 30ml syringe. Check with local Palliative Care Team, pharmacy, Palliative Care Formulary 6th edition if using an unusual combination.</p>	
<p>Choice of infusion site</p> <ul style="list-style-type: none"> • Anterior chest wall • Lateral upper arms • Anterior abdominal wall • Anterior outer thighs • Back, away from spine & scapula (in confused or disorientated patients) <p>Avoid areas of inflammation, oedema, broken skin, bony prominences, recently irradiated areas, sites of tumour, sites of infection, skin folds or lymphoedema.</p>	