# PROCEDURE FOR THE GRASEBY MS26 SYRINGE DRIVER ADMINISTRATION OF PALLIATIVE MEDICATIONS

<table>
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<tr>
<th>Last Issued</th>
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<tbody>
<tr>
<td>Oct 2008</td>
<td>Five</td>
<td>To assist and support community practitioners in the use and management of syringe drivers to promote safe and effective patient care via subcutaneous route</td>
<td>2013</td>
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<tr>
<th>Named Responsible Officer:-</th>
<th>Approved by</th>
<th>Date</th>
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<tr>
<td>Service Improvement Unit and Medicines Management</td>
<td>Nursing Policy Group</td>
<td>February 2010</td>
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<thead>
<tr>
<th>Section :- Medicines Management</th>
<th>Impact Assessment Screening Complete</th>
<th>Full Impact Assessment Required Y/N</th>
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<tbody>
<tr>
<td>MM N° 04</td>
<td>Date: January 2010</td>
<td>Y/N</td>
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**UNLESS THIS VERSION HAS BEEN TAKEN DIRECTLY FROM THE NHS WIRRAL WEB SITE THERE IS NO ASSURANCE THIS IS THE CORRECT VERSION**
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INTRODUCTION

NHS Wirral is committed to providing high quality nursing services to all patients requiring medication subcutaneously via a MS26 syringe driver

AIM

This procedure aims to promote safe and effective administration of medication for community nursing patients in the community setting who require medication subcutaneously via a Graseby MS26 syringe driver.

OUTCOME

All registered nurses will comply with this procedure and will maintain their competence in using a Graseby MS26 syringe driver

TARGET GROUP

All Registered Nurses permanently employed by the NHS Wirral who have received syringe driver training and are competent in the setting up, reloading and taking down the syringe driver including management of complications.

BANK STAFF

Registered nurses working on NHS Wirral nursing bank, including those who hold a substantive post can be the second checker but not the lead nurse.

TRAINING

Training on the theory of using syringe drivers will be available for all registered nurses who need to be involved in setting up syringe drivers. A syringe driver competency (including a numeracy test) will need to be completed within three months of starting in post, and updated every two years. A copy will be kept by the individual member of staff and a copy in personal file.

Registered nurses cannot be the lead nurse without evidence of a successfully completed competency for syringe drivers.

Related mandatory in-house training:
Medicines Management – every two years
Theory of syringe drivers (Palliative Care Study Day) – every two years

THE GRASEBY SYRINGE DRIVER

The Graseby MS26 syringe driver is a small portable battery operated device for administering medication. It is widely used for the administration of medicines via the subcutaneous route over a calculated period of time, particularly for symptom control when other routes of medication administration are not appropriate

RELATED POLICIES

- Health Records Policy
NB Always use most current versions of NHS Wirral and NMC policies as may be superseded at any time

INDICATIONS FOR USING A SYRINGE DRIVER IN PALLIATIVE CARE

After the assessment of the patient the registered nurse must be satisfied that it is in the best interests of the patient to have the administration of medications subcutaneously via a syringe driver. This may be for the following reasons:

- Persistent nausea and vomiting
- Dysphagia; intermittent or continuous
- Oral or pharyngeal lesions
- Intestinal obstruction
- Patient too weak to swallow oral medication
- Diminishing level of consciousness
- Malabsorption of oral medication
- Rectal route inappropriate or unavailable

ADVANTAGES

- Avoids the need for four hourly injections
- Provides stable plasma levels of analgesics/medication that may be required for current symptom management
- Patients can retain mobility and independence
EQUIPMENT

- Check syringe driver is within service date if not return to Electronic Bio-Medical Equipment (EBME) at Wirral University Teaching Hospital, Graseby recommend annual service. If problems arise in the interim period, return syringe driver to EBME and complete a NHS Wirral Incident Form.
- A luer lock (B D Plastipak) syringe is to be used at all times when priming a syringe driver. A 20ml syringe is recommended as this allows for a larger volume of diluent. If larger volumes of liquid are required a 30ml syringe may be used.
- **Staff must use a 1ml syringe for measuring medication volumes less than 1ml, insulin syringes must not be used as this may lead to drug errors.**
- Single use disposable dressing pack
- Needles (Green).
- Doop kit
- Sharps box
- Patient Medicines Administration Chart and relevant syringe driver documentation
- Adhesive syringe driver label
- Graseby flo safer
- If patient has a proven nickel allergy do not use the Graseby flo safer equipment use a Thalaset line instead (Maersk Medical)
- Clear adhesive film dressing to cover and secure butterfly/needle
- New Alkaline 9v batteries must be used for each new patient
- **Do not use** re-chargeable batteries. Batteries must be changed as per manufacturer instructions. Spare battery to be kept in syringe driver box at all times.
- Lockable boxes are used in the hospital setting. They may be used in the community and hospice for example under circumstances where tampering of the device is suspected or if any concerns regarding safety in the patients home. They are available from the Community Nursing Office or the Hospice at weekends and out of hours, when in agreement with the community nursing line manager. A risk assessment must be completed if this device is needed, and stored in the base records.
- Evopak are available for safe storage of medicines with use of numbered tags

SETTING UP AND USE OF SYRINGE DRIVER

**PROCEDURE FOR INSERTION OF A SUBCUTANEOUS BUTTERFLY FOR A SYRINGE DRIVER**

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbally check the identity of the patient against the patient medicines</td>
<td>To confirm that the patient is the correct recipient of the prescription</td>
</tr>
<tr>
<td>administration chart and the pharmacy label with the patient, with full</td>
<td></td>
</tr>
<tr>
<td>name and date of birth. If not possible – check details with family or</td>
<td></td>
</tr>
<tr>
<td>carers</td>
<td></td>
</tr>
<tr>
<td>Ensure patient is introduced to staff involved in procedure by name</td>
<td>Improves communication and help reduces anxiety</td>
</tr>
<tr>
<td>Give clear explanation of the procedure to be performed and the care that</td>
<td>To gain patient co-operation and enable informed and understood consent to</td>
</tr>
<tr>
<td>will follow</td>
<td>the procedure</td>
</tr>
<tr>
<td>Benefits and risks of procedure to be explained</td>
<td>So patient or carers can make informed decisions</td>
</tr>
<tr>
<td>Provide opportunity for questions to be asked</td>
<td>Patients or carers need time for queries or concerns to be discussed</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Provide emotional and physical support as required</td>
<td>As specified in the patient's care plan</td>
</tr>
<tr>
<td>Establish patient has no known allergies, check in patient's records and also ask patient / family of any known history</td>
<td>To reduce allergic reactions</td>
</tr>
<tr>
<td>Record outcome of discussions and document in care plan, including valid consent to procedure</td>
<td>Health Records Policy</td>
</tr>
</tbody>
</table>
| Note, when patient unconscious or does not have capacity to consent, medication are prescribed in the patient's best interest, evidence of wider consultation should be recorded in consent form four. *Copy to be kept in base notes.* | NHS Wirral Consent Policy
Working in partnership with carers and other health care professionals |
| Ensure Patient Medicines Administration Chart is: | To comply with prescribing legislation and community nursing documentation guidelines
*NB Ensure you get clarification from the prescriber if there is any ambiguity about the medication on the community medication administration chart* |
| - clearly written  
- unambiguous  
- signed by the prescriber and date prescribed recorded on the chart  
- allergy status of patient is stated | To check accuracy and validity of dispensed prescription |
| Check the manufacturer’s label on the vial checking: | To comply with NHS Wirral policy |
| - names of the medicines  
- form of medicines  
- strength of the medicines  
- dosages of the medicines | To provide an audit trail of batch numbers used
Avoid out of date medicines being given |
| Supplier by the pharmacist correspond to the drug details on the Patient’s Medicines Administration Chart. (If a dosage is prescribed as a sliding scale ensure the dose is within the dosage range prescribed) Where there is a range, start at the lowest dose unless otherwise advised by GP or Specialist Palliative Care Team | To reduce the risk of transfer of transient micro-organisms on the healthcare workers hands |
| If any calculations are required ensure two appropriately trained staff members check the calculation and document appropriately | To minimise medication errors
The unregistered nurse will have the underpinning knowledge and skill to assist the registered nurse and have evidence of competency recorded. |
| Check batch number and expiry date and record in patient records on appropriate syringe driver documentation | To reduce medication errors
This clarifies accountability in line with NMC Codes of Conduct. |
<p>| Decontaminate hands | |
| Two trained staff are required to be present when setting up and re-priming a syringe driver; one of the staff can be an unregistered nurse who has successfully undertaken syringe driver competency training. | |
| In the event of two registered nurses setting up or re-priming a syringe driver one nurse must take lead responsibility for drawing up the medication, attaching the syringe to the driver, complete and sign all necessary documentation The second nurse will take responsibility for | |</p>
<table>
<thead>
<tr>
<th>Checking the medication and signing in the ‘checked by’ column.</th>
<th>Bank staff can be a ‘second checker’ but not the lead nurse in setting up or re-priming a syringe driver.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Graseby MS26 syringe driver is designed to drive the plunger on the syringe, at a particular rate. NHS Wirral states that the pump is always set at 50mm, this means that the plunger on the syringe will be driven 50mm over 24 hours.</strong> Therefore, measure the volume on the barrel of the syringe to be used in the infusion pump, equating to 50mm length of travel. This must be checked prior to each administration.</td>
<td>To minimise the risk of medication errors</td>
</tr>
<tr>
<td><strong>Open sterile dressing pack onto a clean field and place all sterile single use equipment required within sterile field</strong></td>
<td>Lead nurse to check to reduce medication errors</td>
</tr>
<tr>
<td><strong>Put on single use disposable sterile gloves in a manner which prevents the outer surface of the sterile glove being touched by a non-sterile item</strong></td>
<td>To maintain asepsis and prevent contamination of sterile equipment</td>
</tr>
<tr>
<td><strong>Draw up all the medicines and prime the giving set</strong></td>
<td>To maintain asepsis and reduce the risk of microbial contamination</td>
</tr>
<tr>
<td><strong>Staff must use a 1ml syringe for calculating the medication less than one ml</strong> Check compatibility of the medication and diluent</td>
<td>To promote safe administration of medication Insulin syringes must not be used as this may lead to medication errors To avoid medication interactions</td>
</tr>
</tbody>
</table>
| All syringes should have labels; the label should be attached to the syringe so that the contents and the volume of the syringe are clearly visible (see Appendix 1). The label should contain the following information:  
  - Full name of patient  
  - Date of birth of patient  
  - Made up by (name of nurse)  
  - Checked by (name of nurse)  
  - Names of medicines (s) in syringe  
  - How many units of each medication in syringe e.g. how many mg  
  - Nature of diluent  
  - Total fluid length in mm in syringe (after priming giving set if appropriate) should be approximately 50mm, if the syringe driver is to be administered over 24 hours  
  - Date and time syringe driver commenced  
  - Route Subcutaneous | To promote safe administration of medication To enable colleagues to check content of syringe driver |
| Choose an appropriate site in consultation with patient (See appendix 2 for choice of site) | Patient may wish to express a personal preference |
| Choose clinically effective site | To separate adipose tissue from underlying tissue (Campbell J. 1995) |
| Alcohol swab to site chosen and leave to dry | To comply with infection control best practice |
| Remove needle sheath and insert needle at 45° | To ensure accuracy of placement |
angle and cover with transparent film dressing

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set syringe driver set <em>50mm /24 hours</em></td>
<td>As per NHS Wirral policy</td>
</tr>
<tr>
<td>New Alkaline 9v batteries must be used for each new patient – remove caps</td>
<td>To avoid battery failure</td>
</tr>
<tr>
<td>On completion of the procedure dispose of all waste according to policy</td>
<td>To prevent environmental contamination</td>
</tr>
<tr>
<td>Decontaminate hands</td>
<td>To comply with infection control and health record policies</td>
</tr>
<tr>
<td>Document procedure and complete all the relevant syringe driver documentation, including syringe driver checklist. Include patient’s perspective when relevant</td>
<td>To record patient care, provide seamless care and comply with health records policy</td>
</tr>
<tr>
<td>Give the patient information leaflet ‘ S yringe Driver Information’</td>
<td>For reference by patients or carers and to support verbal advice</td>
</tr>
</tbody>
</table>

In the Community the rate should be set at 50mm/24hours and should not be changed. After servicing staff must ensure the rate is re-set at 50mm.

**BOOST FACILITY**

The boost facility/start button should only be used to start the syringe driver. Press and hold the syringe driver start button for 10 seconds (MS26). Do not use the boost button to deliver extra medication. It is not good practice to use the boost button to alleviate symptoms, as it does not deliver a therapeutically effective dose of medication. Administer an ‘as required’ dose of the appropriate medication and review medication in the syringe driver.

**SYRINGE DRIVER CHECKLIST**

The syringe driver checklist must be completed at each visit by registered nurse (see appendix four). This is essential to prevent any delay in the patient receiving prescribed medication.

- Syringe driver sites should be changed as required (see site preservation page 13).
- If more than one syringe driver is being used, a separate syringe driver / Patient Medicines Administration Chart is to be used for each syringe driver and clearly numbered on the green labels attached to each syringe barrel.

**MEDICINES**

a) Medicines should be diluted in sodium chloride 0.9% when making up a syringe driver except:

- Cyclizine (alone or in combination with other medicines) should be diluted with water for injection

**NEVER measure syringe volumes by ml, ALWAYS fill your syringe to 50mm fluid**
Diamorphine in concentrations greater than 40mg/ml should be diluted with water for injections; see examples below:

- If there is more than 560mg diamorphine in a 20ml syringe you must use water for injection as the diluent. (50mm of fluid in a 20ml syringe would correspond to approx 14ml, as 14ml x 40mg/ml = 560mg)

- If there is more than 720mg diamorphine in a 30ml syringe you must use water for injection as the diluent. (50mm of fluid in a 30ml syringe would correspond to approx 18ml, and 18mlx40mg/ml= 720mg)

If in any doubt about the concentration of diamorphine you are using, use water for injections as your diluent.

b) The following medication should be used in a syringe driver only as single agents: -
   - Ketorolac
   - Ketamine
   - Phenobarbital
   - Diclofenac - this is not the Non-steroidal Anti-inflammatory medication (NSAID) of choice for use in syringe drivers
   - Dexamethasone - when Dexamethasone 1mg used for site preservation it may be mixed with other medication (Reymond, L. 2003). The dexamethasone should be added last to the driver to reduce the risk of incompatibility.

c) If medications are combined in a syringe driver it is important that they are compatible. If a combination of 4 or more medicines is considered, contact the Community Specialist Palliative Care Team for further advice. If unavailable contact the Palliative Advice & Information Line (PAIL line – 24 hours) see page 16.

d) Do not use the combination of cyclizine plus hyoscine butylbromide in a syringe driver as there is risk of crystallisation

e) It is not usually appropriate to mix cyclizine with oxycodone due to incompatibility at therapeutic doses.

f) Ensure where there is an increase in the dose of an opioid analgesic that the calculated dose is safe for the patient i.e. not normally more than 50% higher than the previous dose (NPSA 2008/RRR05). Also be aware the patient may be receiving opioids by other routes and equivalent dosages need to be considered. Contact the Palliative Advice & Information Line (PAIL line – 24 hours) for advice if required.

g) When setting up a syringe driver nurses need to be aware of anticipatory prescribing and only include medicines that are required for current symptom management into the syringe driver.

h) Examples of more irritant medicines when given subcutaneously include chlorpromazine, diazepam, prochlorperazine, diclofenac, ketamine, ketorolac, levomepromazine, methadone, octreotide, ondansetron, phenobarbital and promethazine
ADVICE TO PATIENTS / FAMILY / CARERS
When a syringe driver is commenced the patient/family must to be issued with a Syringe Driver Information Leaflet for Patient’s Families and Carers (available from the Community Nursing Office), action to be documented in the patient’s record.

Additional advice re position and care of a syringe driver
• Do not open
• Do not clean with strong household detergents or solvents
• Do not position syringe driver above needle entry site
• Recommend suitable means of carrying
• To ensure line is not trapped
• To try to prevent driver from being dropped
• Advise how to arrange return of equipment

TRANSDERMAL CONTROLLED DRUGS
If the patient is currently using a transdermal buprenorphine or fentanyl patch treatment they should continue with this formulation, unless the prescriber has given clear instructions to remove the patch. Breakthrough pain should be treated with equivalent ‘as required’ doses of subcutaneous opioids.
If further information needed contact the Community Specialist Palliative Care Team for further advice. If unavailable contact Palliative Advice and Information Line (PAIL line – 24 hours)
The total daily ‘as required’ medication is then given as a continuous subcutaneous infusion via a syringe driver. (Dickman et al 2005)
Continue to change the patch as prescribed:-
• If two or more doses of breakthrough analgesia are required for breakthrough pain, not incident pain (i.e. agitation or pain on movement) consider a continuous infusion via a syringe driver.
• Total up ‘as required’ doses of breakthrough analgesia over 24 hr periods.
e.g. 4 ‘as required’ doses × 10mg diamorphine over 24hrs = 40mg diamorphine infused via a syringe driver over 24hrs.

SWITCHING MEDICATIONS TO SUBCUTANEOUS (sc) ROUTE
(Where the administration via the original route is to stop)
Where symptoms are controlled, start the syringe driver 1-2 hours before the effects of the drugs which you are switching the route to sc are due to wear off. For example, a patient who took their last zomorph® (morphine) capsule at 10pm last night should have their morphine syringe driver set up at 8-9am the next morning.
If symptoms are uncontrolled, set up the syringe driver immediately with stat doses of the same medication. In this case take care not to overdose the patient with the same medication via different routes. Take advice if unsure from the prescriber or specialist palliative care team.
NURSING HOMES

EQUIPMENT
Nursing Home staff access syringe drivers by contacting Eastham Clinic 9 – 5pm. Out of hours, syringe drivers can be accessed via the Wirral Admissions Prevention Service or the community nursing teams at the weekends and Bank Holidays. It is the nursing homes responsibility to obtain the equipment and the medication.

CLINICAL SKILLS
If nursing home staff report they do not have the knowledge or skill to provide this aspect of nursing care, if this is the case Community Nursing Teams are responsible for setting up a syringe driver in a Nursing Home during the week 9 – 5pm. Wirral Admission Prevention Service will cover out of hours.

INCIDENT REPORTS
Any community nursing activity or problems relating to Syringe Drivers in Nursing Homes must be reported using NHS Wirral Incident Reporting Form, as all community nursing activity in nursing homes will be monitored.

TROUBLE SHOOTING FOR SYRINGE DRIVER

<table>
<thead>
<tr>
<th>Fault</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The syringe driver will not start</td>
<td>The start button has not been pressed in enough</td>
<td>➔ Press again</td>
</tr>
<tr>
<td></td>
<td>There is no battery</td>
<td>➔ Fit battery</td>
</tr>
<tr>
<td></td>
<td>The battery is in the wrong way round</td>
<td>➔ Re-fit battery</td>
</tr>
<tr>
<td></td>
<td>Rubber kept on battery terminal</td>
<td>➔ Remove rubber and fit battery</td>
</tr>
<tr>
<td></td>
<td>The battery is exhausted</td>
<td>➔ Fit new battery</td>
</tr>
<tr>
<td></td>
<td>The syringe driver is faulty</td>
<td>➔ Service needed</td>
</tr>
<tr>
<td>The infusion is going too quickly or has ended early</td>
<td>Wrong rate set</td>
<td>➔ Correct error</td>
</tr>
<tr>
<td></td>
<td>Wrong syringe brand or size</td>
<td>➔ Correct error</td>
</tr>
<tr>
<td></td>
<td>Syringe plunger push button or finger grips were not held in the actuator or case correctly</td>
<td>➔ Correct error</td>
</tr>
<tr>
<td></td>
<td>Plunger position measured wrongly</td>
<td>➔ Correct error</td>
</tr>
<tr>
<td></td>
<td>Line was filled after the plunger position was measured</td>
<td>➔ Correct error</td>
</tr>
<tr>
<td></td>
<td>Battery may need changing</td>
<td>➔ Replace battery</td>
</tr>
<tr>
<td></td>
<td>Boost button on MS26 has been used</td>
<td>➔ Patient/ carer education</td>
</tr>
<tr>
<td></td>
<td>Syringe driver has got wet</td>
<td>➔ health practitioner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complete incident form</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➔ Replace immediately</td>
</tr>
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GRASEBY MS26 SYRINGE DRIVER PROCEDURE FOR THE ADMINISTRATION OF PALLIATIVE MEDICINES
11/20
<table>
<thead>
<tr>
<th>The infusion is going too slowly</th>
<th>Wrong rate set</th>
<th>➔ Correct error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wrong syringe brand or size</td>
<td>➔ Correct error</td>
</tr>
<tr>
<td></td>
<td>Plunger position measured wrongly</td>
<td>➔ Correct error</td>
</tr>
<tr>
<td></td>
<td>Battery may need changing</td>
<td>➔ Replace battery</td>
</tr>
<tr>
<td>The syringe driver has stopped before emptying the syringe</td>
<td>Trapped infusion line</td>
<td>➔ Un-trap infusion line</td>
</tr>
<tr>
<td></td>
<td>Blocked infusion line</td>
<td>➔ Re-prime driver</td>
</tr>
<tr>
<td>The syringe driver has stopped with the light still flashing</td>
<td>The mechanism for pushing the plunger has worn out.</td>
<td>➔ Service needed Change syringe driver</td>
</tr>
<tr>
<td>Drugs crystallised / cloudy</td>
<td>• Incompatibility: medicine with medicine</td>
<td>➔ Palliative Advice and Information Line</td>
</tr>
<tr>
<td></td>
<td>• Incompatibility: medication with diluent</td>
<td></td>
</tr>
<tr>
<td>Medicines Healthcare Products Regulatory Agency (MHRA)</td>
<td>• Temperature</td>
<td>➔ Re-assess environment and advise</td>
</tr>
<tr>
<td><a href="http://www.yellowcard.gov.uk">www.yellowcard.gov.uk</a></td>
<td>• Exposure to light</td>
<td></td>
</tr>
<tr>
<td>or complete and send yellow card found in British National Formulary (BNF)</td>
<td>• Insufficient diluent</td>
<td>➔ Palliative Advice and Information Line</td>
</tr>
</tbody>
</table>

**TROUBLE SHOOTING: BUTTERFLY, THALASET AND GRASEBY FLO SAFER LINES**

The needle should be re-sited if any of the following occur

- Patient complains of pain at the administration site
- Skin is red inflamed or bruised
- Skin is white and/or hard
- Blood is present in the line or butterfly
- Needle becomes dislodged
- Presence of exudate
- Replace the access device at 72hrs or if any of the above occur (Dickman A et al 2005)
Avoiding site reactions:
- Rotate the site every 72 hours
- Dilute the solution as much as possible e.g. by using a 30ml syringe in place of a 20ml syringe.
- Site reactions are more likely to occur with irritant drugs so consider changing the combination
- Irritation may be due to allergy to nickel in the needle

TRANSFER OF PATIENTS BETWEEN HOSPITAL AND COMMUNITY

When a patient is discharged home the community syringe driver should be attached as soon as possible and the hospital syringe driver sent back safely to the appropriate discharge facility, i.e. equipment library at Wirral University Teaching Hospital NHS Foundation Trust or to St John's Hospice depending on the discharging hospital or hospice.
When a patient is admitted to any hospital / hospice setting community staff must ensure safe return of the community syringe driver.

MEDICATION ERRORS

It is important that an open and fair culture exists in order to encourage the immediate reporting of errors, incidents or near misses in the prescribing, dispensing and administration of medicines. If an error has occurred staff must comply with the NHS Wirral Incident Reporting Policy and complete incident form.
Wirral Admissions Prevention Service must be informed as they will monitor any potential impact on the patient.
If a medication administration error occurs the General Practitioner and line manager to be informed within the same span of duty, or the on call duty manager.

DEATH OF A PATIENT ON LIVERPOOL CARE OF THE DYING PATHWAY

In the event of an expected death of a patient in the community, nursing staff can remove equipment from the deceased. Nurses can also refer to the expected death of patient procedure and sudden death policy.

Any medication errors or discrepancies please refer to NHS Wirral for Safe Handling and Administration of Medicines Policy

In the event of a sudden death within the community the scene must be left undisturbed. The emergency services need to be called, patient’s General Practitioner and the Community Nursing Line Manager to be informed.

STORAGE AND DISPOSAL OF MEDICINES IN THE COMMUNITY

Envopaks are available for safe storage of medicines with use of numbered tags

If a patient lives in a Residential Home all drugs including controlled drugs must be kept by the residential home for seven days following a death, destruction of the medicines remain their responsibility.
Please refer to the NHS Wirral Safe Handling and Administration of Medicines Policy
DECONTAMINATION

The syringe driver must be decontaminated between individual use, prior to service, inspection or repair and as part of good housekeeping if contaminated during use (refer to infection control policies)

RECORD KEEPING

All records need to comply with the NHS Wirral Health Records Procedure and Record Keeping Procedure for Community Nursing.

Documentation required:

- **Patient Medicine Administration Chart for medicines via a syringe driver** (White Medicines Administration Chart) - signed and dated by General Practitioner/Prescriber with patient's name, address and date of birth. If more than one syringe driver required a Community Medicines Administration chart is needed for each driver.
- **Patient Medicines Administration Chart (medicines administration chart)** – for all other medicines not administered via the syringe driver such as 'as required medication' signed and dated by General Practitioner/prescriber with patient’s name, address and date of birth
- **Record of Administration of Medication for 24 hour Syringe Driver** - Pink
- **Record of Administration for As Required Medication** (for use with Syringe Driver or Transdermal Opioid patch) – Yellow
- **Medication Stock Control Sheet for use with Syringe Drivers** – Green
- Syringe driver checklist sheet
- Label for syringe

DISCHARGE PLANNING

It is essential that the following are in place:

- Appropriate equipment in place (if feasible)
- Correct discharge details
- Patient Medicines Administration Chart - signed and dated by medical practitioner, clearly labelled with patients name, address, NHS Number and date of birth
- Supply of prescribed medicines – 14 days supply. In the event of a palliative discharge enough medication will be prescribed to last until after the following weekend.
- Contents of syringe driver documented, time of when last re-primed/set up
- Time and type of any ‘as required’ medications given

An incident form must be completed for any discharges which have a detrimental impact on patient care.
CHILDRENS SERVICES

The needs of the dying patient must be safely met at all times. Advanced joint care planning should be in place and each case discussed with the Service Manager, as further guidance and support may be required.

Community nurses can support the clinical needs of children aged 16-18, with the support of Specialist Centres such as Alder Hey, within a specified care plan. The Macmillan Nurses based at Alder Hey Hospital provide a 24-hour Palliative Care Service, they can be contacted on 0151-228-4811 and ask switchboard to ‘bleep’ the Macmillan nurse on-call.

Out of Hours - If a child is in pain and there is any anticipated delay in getting specialist advice, staff must also refer to GP Out of Hours

If staff are aware of any problems in delivering timely services to children, staff must complete an incident form and discuss with their line manager for further advice, 9-5pm or contact their ‘on call manager’ after 5pm and at weekends via switch at Wirral University Teaching Hospital NHS Foundation Trust - 0151 678 5111.

WHERE TO GET ADVICE FROM:

NHS Wirral’s Specialist Palliative Care Team

Palliative Advice and Information Line 24-hour service 0151-343-9529

Marie Curie website www.mariecurie.org.uk

Macmillan Nurses based at Alder Hey Hospital 24-hour service 0151-228-4481 and ask switchboard to ‘bleep’ the Macmillan Nurse on call
REFERENCES

Campbell, J (1995) Injections (Update on Techniques and Potential Complications); Professional Nurse, April 10 (7) p455-8


Medicines Healthcare Products Regulatory Agency (MHRA) www.yellowcard.gov.uk

Meister, FL; Ahrens, T; Schallon, L (1998), Ask The Experts, Critical Care Nurse, Vol. 18; Nov. Pg. 97


Reymond, L; Charles, M; Bowmen, J; Tresten, P; (2003), The Effect of Dexamethasone on the Longevity of Syringe Driver Subcutaneous Sites in Palliative Care Patients, The Medical Journal of Australia, Vol. 178, Pg. 486-489


BIBLIOGRAPHY (copies available in every base and on the NHS Wirral website)

Merseyside and Cheshire Palliative Care Network Audit Group Standards and Guidelines 2009

Wirral Guidelines for Care of the Dying Patient 2006 (St John’s Hospice)
Locally adapted version of the Liverpool Care of the Dying Pathway (LCP) available on the NHS Wirral intranet

Useful websites:

British National Formulary (BNF) www.bnf.org.uk

Current learning in palliative Care http://learningzone.mariecurie.org.uk/endoflife/syringedrivers.htm

Nursing and Midwifery Council (NMC) (www.nmc-uk.org)

Palliative Care Formulary textbook is available free online following registration with the website: www.palliativesdrugs.com
Appendix Two

SUBCUTANEOUS INSERTION SITES

Shaded areas that can be used to insert a Graseby flo safer for a subcutaneous site.

**UPPER BACK (Scapula region)**
Use when:
- other sites are unsuitable
- patient confused/distressed to reduce chances of accidental removal

**SUBCLAVICULAR AREA**
Ensure caution is taken when using the subclavicular space as the insertion site. In a cachectic individual there may be a small amount of tissue between the chest wall and the underlying lung, which results in the risk of a pneumothorax. To decrease this risk, pull the skin away from the chest wall and insert the needle at a shallow angle or choose a different site for insertion.

The following areas should be avoided when inserting a subcutaneous needle:
- Areas with Lymphoedema or oedema
- Areas that have too little subcutaneous tissue
- Areas with broken skin or scar tissue
- Skin sites that have recently been irradiated
- Sites with infection or inflammation present
- Area with bony prominences
- Near a joint
- Tumour sites
- Skin folds
- Radiotherapy sites
- Breast
- Upper arm/outer thigh in bedbound patients who require turning
Ensure syringe plunger is flush against actuator.
### SYRINGE DRIVER CHECK LIST (use current version on intranet)

#### Patient’s Full Name:                       Date of Birth:                       NHS Number:

Identify total number of syringe drivers in use (i.e. 1 of 1 or 1 of 2) ________________ Specify Number of this syringe driver ________________

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Rt = Right   Lt = Left   CW = Chest Wall   Abdo = Abdomen   ml or mls = millilitres

20/20