Explanatory Notes

Regional Templates for CME/McKinley T34 Syringe Pump Prescription and Administration

Administration of medicines via continuous subcutaneous infusion is an effective method of medicine administration that is particularly suited to palliative care[1].

There are additional requirements for prescription, administration and monitoring of medicines administered via subcutaneous syringe pump[2,3]. However the required documentation for prescription, administration and monitoring cannot be easily recorded on standard prescribing and administration documents, for example the in-patient prescription and administration record ('kardex') in use in secondary care. Many primary and secondary care organisations use a separate chart to facilitate accurate documentation of prescription, administration and monitoring of medicines administered via continuous subcutaneous infusion in a single document.

A multidisciplinary sub group of the Northern Ireland Cancer Network (NICaN) Pharmacy Group was convened to develop regional templates for CME/McKinley T34 syringe pump prescription and administration. Following consultation and piloting the following templates have been developed:

- Prescription & administration of medicines via subcutaneous CME/McKinley T34 syringe pump
- Continuation record for CME/McKinley T34 syringe pump.

These templates are offered to primary and secondary care organisations for local approval and implementation. Implementation of these templates should:

- Facilitate safer prescribing and administration through standardisation. Healthcare professionals frequently rotate through or work in different locations in primary and secondary care. Patients often move between care settings and localities; and

- Facilitate training of appropriate healthcare professionals across Health and Social Care organisations.

The templates require minimal adaptation for use in each organisation as indicated. It should be noted that for specific issues such as the required frequency of monitoring checks, use of these templates must be in accordance with the policy of the individual organisation. This is highlighted below and on the templates.

Style

Templates have previously been developed for syringe drivers calibrated in distance travelled. These templates have been modified and are being made available for CME/McKinley T34 syringe pumps which are volume based infusion devices.

The templates have been formatted as a double sided A4 landscape pages, with space for hole-punching for filing.

Template 1: Prescription and administration record of medicines via subcutaneous CME/McKinley T34 syringe pump

The prescription, preparation and administration are documented on one side and monitoring and disposal are documented of the reverse.

The prescription and administration record is designed for use in primary and secondary care.

In secondary care, the prescription is valid for the duration of the preparation and administration record, unless otherwise discontinued. The preparation and administration record permits recording of the preparation of four syringes before the prescription is required to be rewritten. Therefore in most circumstances, the prescription and administration record will last four days. Where a prescription is being altered, the prescription must be discontinued and a new prescription and administration record commenced.

In primary care, the use of continuation records for preparation and administration, allows the prescription to be valid until it is discontinued.

The components of the prescription and administration record are described below.

Front page

- Name of organisation and logo
- Patient details (name, patient number, date of birth, address) written in capital letters or addressograph
- Facility/team details (hospital, ward, consultant/team/GP)
- Allergy box that complies with the regional ‘Policy for the documentation of allergy status’
- Prescription chart serial number that should be printed sequentially by the printer. This is essential to link the prescription to any continuation records for preparation and administration in use in primary care
- Number of syringe pumps in use for an individual patient, for example ‘1 of 2’
- Date rewritten where an existing prescription has been rewritten but is unchanged
- Notes to highlight requirements for prescribing and administration, advice regarding opiate prescribing, compatibility, referencing on a kardex where in use and prescribing of breakthrough medicines
- Space for special instructions/additional notes/pharmacy notes to be recorded.

Prescription

- Medicine names
- Dose

This section allows up to four medicines to be prescribed in one syringe pump, **provided** compatibility information exists, in accordance with the policy of the organisation. A line is drawn through unused rows.

- Diluent
- Final volume - final volume is required as part of the prescription in some organisations. A template is available with and without final volume to facilitate each approach
- Duration of infusion in hours
- Prescriber's signature, printed name and designation to facilitate enquiries and an audit trail
- Start date and time
- Stop date and time, signature and printed name and designation of prescriber discontinuing prescription.

Preparation and administration

- Date of preparation
- Batch number of each medicine and diluent
- Confirmation that expiry dates have been checked and are in date
- Battery life (%)
- Confirmation that the pump is delivering
- Syringe pump ID number
- Final volume (ml)
- Confirmation of whether or not the line has been primed using this syringe
- Rate setting (ml/hr)
- Position of site
- Time commenced
- Confirmation that the lock is on
- Prepared and commenced by – completed by one or two persons in accordance with the policy of the organisation.

Back page

- Patient details (name, patient number, date of birth and address) written in capital letters or addressograph.
- Facility/team details (hospital, ward and consultant/team/GP)
- Space for recording contents discarded, where this is not recorded in other documents in accordance with the policy of the organisation
- Space for when patient is transferred between ward/dept
- Codes for specific problems noted during monitoring.

Monitoring checks

Checks should be conducted in accordance with the frequency specified in the policy of the organisation

- Date and time of check
- At each check:
  - Rate setting
  - Confirmation that the pump is delivering
  - Volume (ml) to be infused (VTBI)
  - Volume (ml) infused (VI)
  - Confirmation that the solution, line, lock on and site were checked
  - Specific problems noted during check using codes. If no problems noted, 'None' is recorded
  - Any action taken or comments
  - Signature of person conducting check.

Template 2: Continuation record for prescription and administration of medicines via subcutaneous syringe pump in primary care

The preparation and administration are documented on one side and monitoring and disposal are documented on the reverse.

The continuation record for prescription and administration of medicines via subcutaneous syringe pump is designed for use in primary care. Continuation records should be held together with the prescription and used until the prescription is discontinued. A new continuation record must be commenced if a new prescription is written.

The components of the continuation record for prescription and administration of medicines via subcutaneous syringe pump in primary care are described below.

Front page

- Name of organisation and logo
- Patient details (name, patient number, date of birth, address) written in capital letters or addressograph
- Facility/team details (GP)
- Reminder to check the prescription for allergies and medicine sensitivities
- The serial number of the prescription and administration record **must** be recorded on each continuation record to ensure there is a clear record of the prescription to which the continuation record refers
- The continuation record number **must** be recorded sequentially each time a new continuation record is commenced, for example continuation record 1, 2 or 3 to ensure records are not overlooked
- Notes to highlight requirements for prescribing and administration, advice regarding opiate prescribing, compatibility, and prescribing of breakthrough medicines.

Preparation and administration

- Date of preparation
- Batch number of each medicine and diluent
- Confirmation that expiry dates have been checked and are in date.
- Battery life (%)
- Confirmation that the pump is delivering
- Syringe pump ID number
- Final volume (ml)
- Confirmation of whether or not the line has been primed using this syringe
- Rate setting (ml/hr)
- Position of site
- Time commenced
- Confirmation that the lock is on
- Prepared and commenced by – completed by one or two persons in accordance with the policy of the organisation.

Back page

- Patient details (name, patient number, date of birth and address) written in capital letters or addressograph.
- Facility/team details (GP)
- Space for recording contents discarded, where this is not recorded in other documents in accordance with the policy of the organisation
- Space for when patient is transferred between ward/dept
- Codes for specific problems noted during monitoring.

Monitoring checks

Checks should be conducted in accordance with the frequency specified in the policy of the organisation

- Date and time of check
- At each check:
  - Rate setting
  - Confirmation that the pump is delivering
  - Volume (ml) to be infused (VTBI)
  - Volume (ml) infused (VI)
  - Confirmation that the solution, line, lock on and site were checked
  - Specific problems noted during check using codes. If no problems noted, ‘None’ is recorded
  - Any action taken or comments
  - Signature of person conducting check.

Template 3: Prescription and administration of subcutaneous medicines for breakthrough symptoms in primary care

The record for prescription and administration of subcutaneous medicines for breakthrough symptoms is designed for use in primary care where a “kardex” would not be in use.

There are six prescription sections therefore there is space for up to six medicines to be prescribed subcutaneously on the one record.

Each prescription is valid for the duration of the administration record, unless otherwise discontinued. The administration record permits recording of ten administrations of a prescribed dose before the prescription is required to be rewritten. Where further doses of the same medicines are required, the prescription can be prescribed again on a new prescription section on the same document.

Records of prescription and administration of subcutaneous medicines for breakthrough symptoms in primary care should be kept together with the main prescription and administration record of medicines via syringe pump.

The components of the template for prescription and administration of subcutaneous medicines for breakthrough symptoms in primary care are described below.

Front page

- Name of organisation and logo
- Patient details (name, patient number, date of birth, address) written in capital letters or addressograph.
- Facility/team details (hospital, ward, consultant/team/GP)
- Allergy box that complies with the regional ‘Policy for the documentation of allergy status’.
- Notes to highlight requirements for prescribing and administration.
- Space for special instructions/additional notes to be recorded.

Prescription

- Medicine name
- Dose
- Route is pre-printed with SC, the abbreviation for subcutaneous
- Maximum frequency
- Prescriber’s signature, printed name and designation to facilitate enquiries and an audit trail
- Start date
- Stop date and signature of prescriber discontinuing prescription.
- Space to note special instructions/ directions.

Administration

- Documentation of administration occurs alongside the medicine prescription and is recorded sequentially
- Date and time dose administered

- Batch number(s) of doses administered
- Dose administered
- Signature of person administering dose.

Back page

Further sections for:

Prescription
- Medicine name
- Dose
- Route is pre-printed with SC, the abbreviation for subcutaneous
- Maximum frequency
- Prescriber's signature, printed name and designation to facilitate enquiries and an audit trail
- Start date
- Stop date and signature of prescriber discontinuing prescription
- Space to note special instructions/ directions.

Administration
- Documentation of administration occurs alongside the medicine prescription and is recorded sequentially
- Date and time dose administered
- Batch number(s) of doses administered
- Dose administered
- Signature of person administering dose.

Training and implementation

Organisations should establish a multidisciplinary group to customise the templates where necessary, plan implementation of the templates and ensure that the policy of the organisation on specific issues, such as frequency of monitoring is clearly defined. Training is essential to minimise the risk of medication incidents during transition to the new design. A PowerPoint training presentation for the templates has been developed to assist with education.

References

1. Dickman, A. & Schenider, J. (2011) The Syringe Pump: Continuous subcutaneous infusions in palliative care (3rd Edition). Oxford University Press.
2. Medical Devices Agency (November 2010) MDA DB2003(02) v2.0. Device Bulletin: Infusion Systems. Available online at: http://www.mhra.gov.uk/Publications/Safetyguidance/DeviceBulletins/CON007321
3. Twycross, R. & Wilcock, A. (Eds) (2011) PCF4: Palliative Care Formulary. Palliativedrugs.com Ltd.