



LEARNING FROM... Palliative care

A REVIEW OF SERIOUS ADVERSE
INCIDENTS, COMPLAINTS AND EXPERIENCE

SEPTEMBER 2023

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Palliative Care... Prioritising patient safety when using syringe pumps

Introduction

Whether we call it a syringe driver or a syringe pump this device, in its' various brands and electronic developments, has played a valuable role in the delivery of subcutaneous medications in palliative care since the 1980s. It has enabled personalised medication to be administered to support and provide patient comfort in a timely way.

Syringe pumps are used across all care settings and transfer with the patient when being discharged or moving from one care environment to another. Lessons and key learning points in relation to delivering safe person-centred care have been identified from serious adverse incidents (SAIs), complaints and patient experience.



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What is an ambulatory syringe pump?

A syringe pump is a portable, battery operated device for delivering medications by continuous subcutaneous infusion.

Syringe pumps are a useful way of delivering medication when a patient is unable to take this orally.

The pump holds a syringe containing medication and this is connected to a line with a small needle inserted below the skin.

The syringe pump is able to deliver a combination of medications continuously with minimal inconvenience to the patient.

The constant delivery of medication controls pain or other symptoms effectively. A continuous infusion avoids peaks and troughs by maintaining plasma drug concentrations. Simply put, the medication retains a constant level of effectiveness over a 24-hour period until the syringe pump is replenished.

Examples of when a syringe pump may be used:

- ✓ The syringe pump may be introduced to deliver a combination of medication which help to manage symptoms which arise intermittently or when an individual is approaching end of life care and dying.
- ✓ When the patient is unable to swallow oral medication because of weakness or swallowing problems (dysphagia).
- ✓ If other routes are inappropriate or unacceptable to the patient.
- ✓ When the patient is experiencing intractable pain.
- ✓ When intestinal obstruction occurs.
- ✓ When nausea and vomiting means that the medication cannot be taken orally.
- ✓ To avoid having to give injected medicines frequently.
- ✓ When the patient is unconscious and needing continued symptom management.



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Prescribing

Accurate prescribing of syringe pump medications is crucial to the delivery of safe and effective care for patients.

CASE STUDY 1

A patient was discharged home from hospital for palliative and end of life care. This patient required two syringe pumps for pain and symptom management, to run over 24 hours. A joint visit by two staff nurses was arranged by the District Nurse for the next day, to replenish the syringe pumps and monitor the patient's condition.

NOTE

It is **not** unusual for patients to require two or more syringe pumps with different prescriptions and diluents. These should be managed as independent medication administration processes.

The medication in syringe pump one included Morphine Sulfate, Midazolam and Haloperidol in **water for injection**, to manage symptoms of pain and restlessness.

The medication dose recorded on the *prescription and administration chart* of syringe pump two was 'Levetiracetam 500mcg' in **sodium chloride 0.9%** to manage seizures. However, **ERROR ALERT**, the staff replenished and administered 500mg (this was one thousand times the dose of what was prescribed).

NOTE

Different diluents are used. **Water for injection and Sodium Chloride 0.9%. This needs to be checked as much as the medications prescribed!**

The following day the medication error was identified by the District Nursing staff when completing medication checks prior to replenishing the syringe pumps. The immediate action taken included stopping the syringe pump and checking the patient's clinical condition. Staff contacted the hospital ward staff who confirmed **ERROR ALERT** the hospital doctor had prescribed the wrong dose and 500mg, not 500micrograms, was actually the correct therapeutic dose. The correct dose was identified on the discharge letter medication list provided to the GP. Therefore, the patient did not come to any harm and had received the correct therapeutic dose.

A new prescription and administration chart was written by the GP, and the syringe pump was replenished in accordance to this correct direction to administer. The patient remained comfortable.





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Key Learning from Case Study 1

Remember - it is important to cross check the syringe pump prescription chart and the discharge letter to identify any discrepancies.

For nurses:

Sometimes we get familiar with regular medications used in palliative care. This example reminds us to always maintain a professional curiosity and be mindful of the Know Check Ask guidance.

The responsibility of staff administering medication is set out in the

[Professional Guidance on the Administration of Medicines in Healthcare settings \(2019\) Royal Pharmaceutical Society & Royal](#)

[College of Nursing](#). This guidance is aimed at registered healthcare professionals; the principles however, can be applied in any healthcare setting by any persons administering medicines. It requires the professional to have sufficient understanding regarding the medicine being administered.

In relation to the Nurses role, the [NMC Code 2015](#) states that those suitably qualified must only prescribe, advise on, or provide medicines or treatment, including repeat prescriptions, if they have knowledge of that person's health and are satisfied that the medicines or treatment are appropriate for the person.

For hospital doctors:

The prescriber should not prescribe "mcg", if the full word had been used this might have helped the nurse identify the issue earlier. Misreading mcg for mg and vice versa is a well established area of risk.



Micrograms should always be written in full.



If the prescription and the product have different units (i.e. one says micrograms and one mg), this should be immediately reviewed with the prescriber and the prescription corrected.

Appropriate use of abbreviations

Unit	Abbreviation
Gram	g
Milligram	mg
Microgram	Not recommended
Nanogram	Not recommended

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CASE STUDY 2

A further case study highlights a similar error, this time relating to the dose of Alfentanil, a strong opioid. In this case the patient was prescribed 300 micrograms of Alfentanil.

ERROR ALERT However, 3mg of Alfentanil was added to the syringe pump. This was **ten times** the prescribed dose. The error was identified through a discrepancy in the number of Alfentanil ampoules. The error here was exacerbated by having two different Alfentanil preparations stored in the Controlled Drugs (CD) cupboard.

Key Learning from Case Study 2

- ✓ Medication comes in different preparation strengths. Examples of this should always be highlighted in education and training.
- ✓ Pharmacy and nursing staff should check the CD cupboard to ensure medications are reviewed and no CD medications are stored unnecessarily. When no longer required these must be returned to the pharmacy department.
- ✓ Registered nursing staff must **PAUSE, REFLECT** and **RE-CHECK** to ensure they have the right dose of the right medication for the right patient. They must be satisfied they are administering it at the right time and for the correct duration via the appropriate route of administration. If required, clarification should be sought from the prescriber, a ward based or community Pharmacist, or through the Specialist Palliative Care Team.





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Continuing Learning from Case Study 2 - Same drug... different strengths

In this case study there was confusion between the strength of alfentanil preparation.

- 5 mg in 1 ml; 1 millilitre (ml) ampoule; (this strength is only used in high doses in palliative care and systems should be in place to ensure it is not kept routinely on ward stock).
- 500 micrograms in 1 ml; 2 ml ampoule
- 500 micrograms in 1 ml; 10 ml ampoule

Prescribed dose	Ampoule size	Strength	Amount to draw up
300 micrograms	1 ml	5 mg/1 ml	0.06 ml ←
	2 ml	500 micrograms/1ml	0.6 ml
	10 ml	500 micrograms/1ml	0.6 ml

CAUTION: If the amount of drug is not easily measurable it should be questioned.

Milligram	Microgram
is like being a millionaire - it's worth lots	is tiny, nearly impossible to see
10 mg	10,000 microgram
1 mg	1000 microgram
0.1 mg	100 microgram

Often prescribed in MILLigrams (mg)		Often prescribed in MICROgrams (should <u>not</u> be abbreviated)
Morphine	Cyclizine	Fentanyl
Oxycodone	Midazolam	Octreotide
Hydromorphone	Levomepromazine	Hyoscine Hydro bromide
Ketamine	Hyoscine Butyl bromide	Glycopyrronium
Levetiracetam (Keppra®)	Metoclopramide	
Ondansetron	Parecoxib (Dynastat®)	

Medicines which may be prescribed as MILLigrams or MICROgrams:

- Alfentanil
- Dexamethasone
- Haloperidol



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Enabling timely access to syringe pump medication

Case study 3 - summary from a complaint

A patient who was receiving end of life care was prescribed medication by the GP to be administered via a syringe pump. The patient's family had to make several trips to a local pharmacy due to errors in the prescription and lack of appropriate stock, in order to enable the District Nursing team to administer the medication via the syringe pump.

This contributed to a delay in alleviating the patients' pain.

“Naturally this ordeal was adding to the stress of our grandmother dying and her distressed state and pain.”

Key Learning from Case Study 3

It is important to recognise the stress that families can experience when caring for a loved one. In order to ensure medication is readily available, all professionals have a responsibility to support and signpost families and carers to how and where to access the prescribed medications in and out of hours. Opposite you will find a link to details for [community pharmacy weekend and public holiday rota](#) and also those that stock palliative care medicines.

Planning ahead and having timely access to medication requires anticipatory prescribing. This in turn enables timely symptom relief when a patient develops symptoms. Many acute events which arise during periods of deterioration at end of life can be predicted and management plans put in place. The use of anticipatory medications should be based on clinical decision making, the patient's underlying condition and their needs.

It is good practice to ask GPs to issue one item per script. Then if something is not available in one pharmacy the script can be taken to another. Some practices ask a reception member to phone ahead to the pharmacy to check their stock so that the carer can be directed to an appropriate pharmacy.

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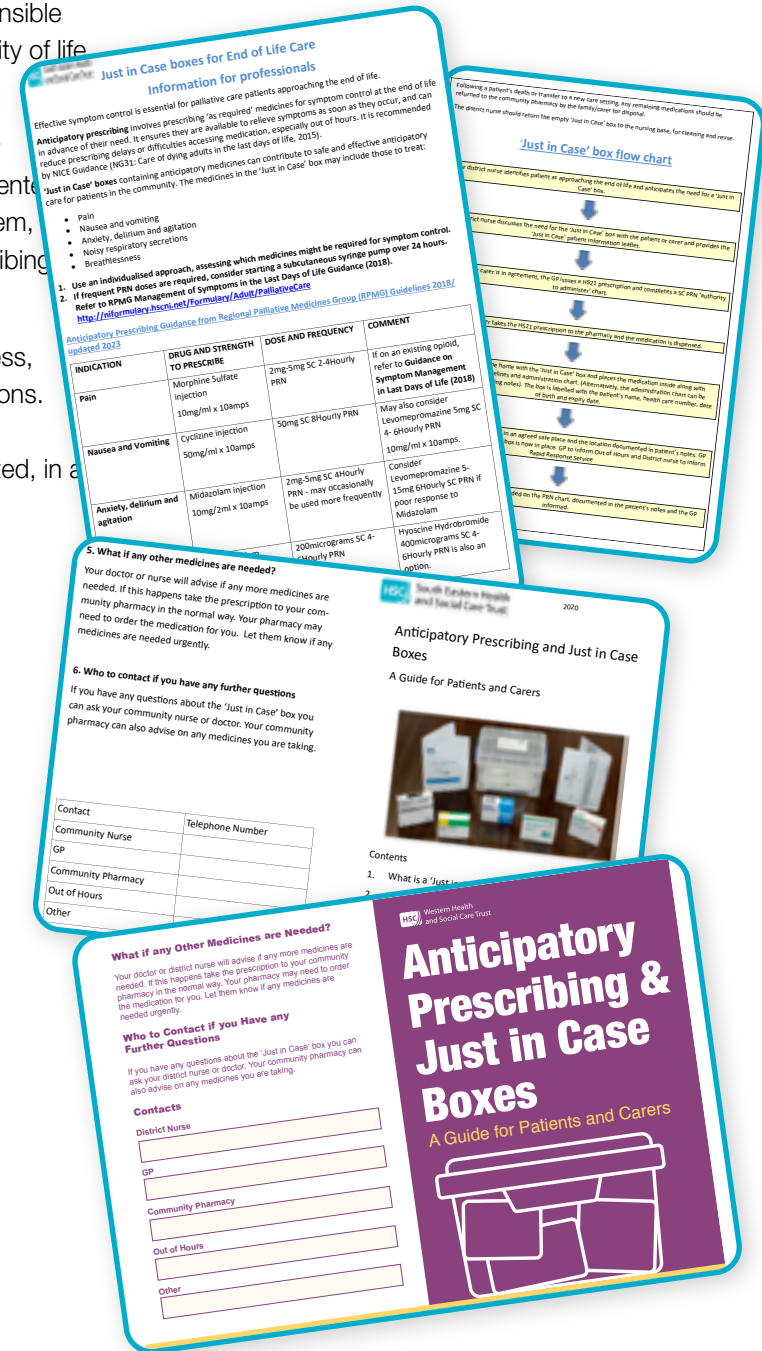
The District Nurse is typically the Palliative Care Keyworker, responsible for the communication and co-ordination of care to enhance quality of life and support the person to remain in their preferred place of care.

Two key areas within the new District Nursing Quality Indicator for Palliative Care include: the recognition and recording of a patient entering the final stages of life using the End of Life Care Operational System, ELCOS tool, and the co-ordination and organisation of the prescribing anticipatory medication.

These medications may be needed to manage pain, breathlessness, nausea & vomiting, anxiety, agitation or excess respiratory secretions.

They are kept safe in the individual patient's home and can be administered to the patient by the District Nurse if clinically indicated, in a timely way.

Further Guidance



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Transfer of all necessary information between care settings

CASE STUDY 4

A patient was discharged home from a hospice setting for palliative and end of life care, **ERROR ALERT** without the necessary prescription and syringe pump chart.

When the District Nurse attended initially to replenish the syringe pump **ERROR ALERT** the details of the syringe pump contents were copied from the label on the syringe attached to the pump and handwritten onto a piece of loose paper.

ERROR ALERT This was taken to the GP who completed a new prescription and syringe pump chart, prescribing an incorrect dose of Ketamine 4 micrograms instead of 400mg. (100,000th of the dose which the patient had been receiving whilst in the hospice). This resulted in a significantly sub-optimal dose being administered over a 5-day period.

ERROR ALERT Despite evidence that the patient's pain was poorly controlled over that 5-day period, a thorough review of their condition, including a review of their medication regime, was **not** undertaken.

Key Learning from Case Study 4

All patients with syringe pumps on discharge should have the regional prescription and administration chart sent with them to confirm the correct prescription.

When we think of the influencing factors within this event, communication and adherence to safe prescribing are the presenting challenges. There was recognition that clinical urgency resulted in not enough time being taken to check records, retrieve the necessary documentation or cross-check sources of information.

Dose recommendations for ketamine when used in a syringe pump are included in the [NI Ketamine Shared Care Guidelines](#). A copy should be sent to the GP on discharge.

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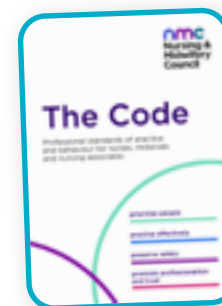
[Keeping patients safe when they transfer between care providers - getting the medicines right. Final report June 2012 Royal Pharmaceutical Society](#)



This report recognises that when patients move between care providers, the risk of miscommunication and unintended changes to medications is a significant problem and supports the implementation of core principles and responsibilities. It recommends core content for records and outlines information about medicines that should be transferred when patients move from one care provider to another. **The recommendations state that:**

- Healthcare professionals transferring a patient should ensure that all necessary information about the patient's medicines is accurately recorded and transferred with the patient, and that responsibility for ongoing prescribing is clear.
- When taking over the care of a patient, the healthcare professional responsible should check that information about the patient's medicines has been accurately received, recorded and acted upon.

[The Code \(NMC 2015\) Professional standards of practice and behaviour for nurses, midwives and nursing associates](#)



The values and principles set out within the Code can be applied in a range of practice settings. The professional commitment to work within one's competence is a key principle of the Code and paramount regarding public protection. It is structured around four themes

- **prioritise people, practise effectively, preserve safety and promote professionalism and trust.** These themes relate to the following issues within the SAls:

- Accurate patient assessment
- Safe plan of care
- Recognising family concerns
- Timely reporting of incidents
- Record keeping

[Good Practice in Prescribing and Managing Medicines and Devices - \(GMC 2021\)](#)



- This document provides a standard of good practice for all doctors working in all settings and asserts that the prescriber is responsible for the prescriptions they sign. They should only prescribe medicines when they have adequate knowledge of the patient's health and satisfaction that the medicines serve the patient's need. It also requests the prescriber to consider if they have sufficient information to prescribe safely, including access to the patients' medical records.
- The document supports the use of electronic and other systems that can improve the safety of prescribing, for example by highlighting interactions and allergies and by ensuring consistency and compatibility of medicines prescribed, supplied and administered.

HSC Trust / other Organisational Policies

All staff employed within primary and secondary care, including agency and bank staff, who are responsible for the prescribing, supply, administration and storage of medicines, must adhere to the guidance contained within their organisational Medicines Code policy. This is held within their intranet systems.



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Administration

Correct administration of medication via a syringe pump is vitally important in safe and effective care. This issue was identified in the following case study.

CASE STUDY 5

A patient living at home had their syringe pump replenished with **ERROR ALERT** 40mg of Hydromorphone Hydrochloride instead of 4 mg of Hydromorphone Hydrochloride. The district nursing staff, who were not previously known to the patient, identified the error 10 minutes after the syringe pump was replenished on the second day and proceeded to remove it immediately.

Key Learning from Case Study 5

The review of this case identified learning in relation to the delegation and supervision of care.

- ✓ If the District nurse does not know the patient, time must be taken before entering the home to get a detailed handover from colleagues and to review the prescription and be informed.
- ✓ Palliative care holistic assessment and reassessment should continually underpin the planning and delivery of care.
- ✓ Review and assessment of symptom management is required prior to administering medication.
- ✓ New drugs and drug combinations should always cause staff to **pause** and check the prescription to be administered and the expected effects and side-effects of the medication.
- ✓ Hydromorphone is much more potent than other more commonly used opioids.

The learning summary from this event highlighted that when staff undertake a review visit, their focus should encompass the patient and entire family dynamic, and not merely a mechanical check of the syringe pump. Enabling someone to be cared for at home is a huge responsibility for family and carers. Their voice should be encouraged, their words and reflections heard, discussed and appropriately acted upon. The experience of the patient and/or family/carer will provide evidence of the efficacy of drugs and should prompt the need to review the medication dose to be administered.

Caution:

- Medication errors can occur when more than 3 ampoules are required to prepare the prescribed dose. Most medications do not need more than 3 ampoules to prepare the correct dose. If you do calculate that you need more than 3, check that you have the correct medication, dose and strength.
- Be familiar with how toxicity of a drug can present and escalate concerns before repeating administration.



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Further Information

A number of tools such as the Safety Pause & Know Check Ask have been developed to aid staff in ensuring safe administration of medication.

This framework, is a generic framework that can be used by any prescriber, and sets out what good prescribing looks like. It describes the demonstrable knowledge, skills, characteristics, qualities and behaviours for a safe and effective prescribing role. Its implementation and maintenance are important in informing and improving practice, development, standard of care and safety (for both the prescriber and patient).



Safety Pause

Case Study 5 led to the development of the Safety Pause aide memoir and alert cards. This tool incorporates the 5 Rights and has been shared with all qualified nursing staff within that Trust.

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CASE STUDY 6 CARE OPINION FEEDBACK

"I was given a bag of medication that was to be put in the syringe pump...when the District Nurse arrived they asked for my brother's medication and notes... which all I had was the letter for the family and doctor. The Nurse then asked me for the box which was needed to put the medication in....I wasn't given anything. The nurse then had to phone the GP and arrange for the surgery to be opened. This was very stressful for my brother, his wife and myself. I have to say the way the nurse handled it was brilliant and made us all feel at ease."

Key Learning from Case Study 6

No one likes fluster and fuss, it adds anxiety, heightens vulnerability and as this reflection from care opinion shares, it exacerbates stress. Whilst we don't know the full picture from this extract what can we learn from it?

- ✓ When a patient is being discharged from one care setting to another, with a syringe pump, ensure that all documentation accompanies the patient to enable continuity of care and safe continuous administration of prescribed medication.
- ✓ A new 'authorisation to administer chart' must be rewritten on day of discharge and advisable to send a small supply of syringes/needles with the medicines on discharge.
- ✓ Before initiating or replenishing a syringe pump, be as prepared as possible, know what you need and have it with you.

Questions to consider

- Competent - have I the skills and knowledge?
- Correct dose - is the prescription correct?
- Compatibility - are the drugs compatible?
- Conversion - have appropriate conversions been made from oral to subcutaneous?
- Communication - central to care and teamwork?
- Coping during out of hours challenges - Have the PRN medication(s) been prescribed in the event that the patient experiences breakthrough symptoms?

The introduction of a syringe pump will have meaning to the patient and their family. Choosing to initiate a syringe pump to improve the management of symptoms requires each professional to sensitively explain the rationale and benefits of introducing this method of medication administration.

- Take time to listen and answer their questions.
- Recognise fears and concerns for the patient and their family and sensitively address these.

This is about gaining consent, providing reassurance and establishing confidence in the treatment plan.

What you should include in that conversation

- Reasons for using this route.
- Information on the general care of the pump.
- WHO, WHEN and HOW to contact a registered member of staff if an alarm sounds or the light stops flashing.
- Advice on showering or bathing, including avoiding immersion of the pump in water.
- This should be supported by a Patient Information Leaflet.



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Importance of Observation

Clear and concise patient records are essential to minimise the risk of errors. Communication and the importance of good record keeping was highlighted in the case below.



CASE STUDY 7

In a recent SAI the Acute Care at Home (AC@H) Nurse arrived to carry out a morning review with a private nursing home (PNH) resident. The nurse found the resident deceased and the syringe pump alarming with the message “paused too long” displaying. The day staff on duty had not been with the resident and no one had identified that the syringe pump had failed during the course of the night. The review of this case focused heavily on the need for guidance documentation and training for care home staff relating to management of a syringe pump. There is great merit in advocating for more robust communication across services and ensuring that all staff understand their role regarding management of a syringe pump. The SAI identified the importance of documentation of communications between PNH staff and AC@H staff. Particularly in relation to:

- The regional prescription and administration syringe pump chart MUST be used.
- It is good practice to have an escalation plan in the event of a patient’s condition deteriorating.
- It is important to provide information to support staff in care homes to manage the syringe pump and understand what to do in the event of a syringe pump malfunction.

Key Learning from Case Study 7

Early identification and recognition of when a persons condition is changing, deteriorating and actively dying, requires staff to increase their presence with the patient throughout the day and night.

Observation of the patient and response to their unique comfort needs are the fundamental principles which keep the person at the centre of their care.

A syringe pump is a useful mechanism to deliver medication. We must strive across all settings to use the device safely and recognise the importance that the patient should always be the central focus of our care, not a pump.

CASE STUDY 8

A patient admitted to a hospice earlier in the day was discovered to have **ERROR ALERT** two syringe pumps running simultaneously, containing the same medications, at differing doses. The patient had been admitted with a syringe pump insitu and the hospice team had not realised this, and commenced a second syringe pump.

Key Learning from Case Study 8

Here, the error originated from a lack of observation and a breakdown in communication. Robust communication regarding treatment and plans of care are vital, especially when transitions of care occur. This should always include body/skin checks as part of the holistic assessment.



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INCIDENTS, COMPLAINTS AND EXPERIENCE

SEPTEMBER 2023

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What is an ambulatory syringe
pump?

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Effective troubleshooting of a syringe pump

The importance of effective troubleshooting of a syringe pump was identified in the complaint below.

CASE STUDY 9 - FEEDBACK FROM A COMPLAINT

A family contacted the out of hours doctor as the syringe pump kept alarming and the family was concerned that it wasn't working. The rapid response nurse arrived and re-sited the pump. It continued to alarm and so they then returned and changed it for a new pump. The nurse said that unfortunately if it continued to alarm there was nothing more they could do.

Key Learning from Case Study 9

In the event of suspected equipment malfunction the registrant should stop the syringe pump:

- ▶ Ensure patient safety by undertaking a holistic patient assessment.
- ▶ Check that the infusion line is not kinked or underneath the patients body
- ▶ Review if the patient is experiencing breakthrough symptoms due to the pump not working and administer prescribed "as required" dose.
- ▶ Liaise with the patient's GP Out of Hours Doctor / Consultant regarding the patient's condition, (especially if the infusion has over-infused or under-infused) and seek advice on further medical management.
- ▶ Check and consider if the prescription is contributing i.e incompatible drugs which may be precipitating and causing an occlusion.
- ▶ Replace the suspected device with another syringe pump from the clinical area stock or Out of Hours contingency stock in Doctor on call premises for 24/7 access to spare pumps.
- ▶ Maintain accurate records of the situation surrounding the event.
- ▶ Complete a DATIX report highlighting the nature of the medication incident due to a malfunction e.g. infusion has over-infused or under-infused and the impact on the patient.
- ▶ The syringe pump should be taken out of general use and contact made with your line manager who will liaise with Trust Clinical Engineering Department with clear indication that it has been involved in an 'incident.'
- ▶ Depending on the nature of the fault, Senior Nurse Managers may forward a report to the Northern Ireland Adverse Incident Centre (NIAIC) which must include the Incident Reference.
- ▶ If patient injury / harm has resulted, this must be clearly indicated on the DATIX where upon the pump will be quarantined until such times as an Independent Review can be organised.



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Training and Education

The professional commitment to work within individual competence is a key principle outlined within the Medical, Pharmacy and Nursing codes. Links to these are available below.

Additionally, people identified as having palliative care needs should have a Palliative Care Keyworker and be provided with information about the role, which includes responsibility to coordinate care and support the family. Ongoing personal development and regular updates on palliative care symptoms and medicines management is important.

All Palliative Care Keyworkers should be cognisant of maintaining competence in all areas of palliative and end of life care. Further information on the Keyworker role is outlined below along with useful guidance and resources to support competence.

- [Palliative Care Keyworker Role and Function 2017](#)
- [Good Practice in Prescribing and Managing Medicines and Devices-\(GMC 2021\)](#)
- [Professional Guidance on the Administration of Medicines in Healthcare settings \(2019\) Royal Pharmaceutical Society & Royal College of Nursing](#)

All organisations will have a policy pertaining to the safe and effective use of a syringe pump for continuous subcutaneous infusion. These should ensure they address the issues highlighted within the incidents such as:

- Assessment and reassessment of a patient's symptoms
- Effective communication with patient/family/carers
- Accurate completion of regionally agreed syringe pump documentation
- Training and competency regarding syringe pump management and troubleshooting
- Contracting and servicing of syringe pumps

CARE OPINION EXAMPLE

“I was diagnosed with bowel cancer... I was lucky to have the district nurse team call to do my syringe pump to try to manage the symptoms. Not having to leave my home and getting the time with my family has been invaluable. The nurses are fantastic, so caring professional and attentive. I could not ask for better.”

CARE OPINION EXAMPLE

“The District Nurses visited me daily whilst I had a syringe pump and they always had time to listen to me when I was feeling low.”

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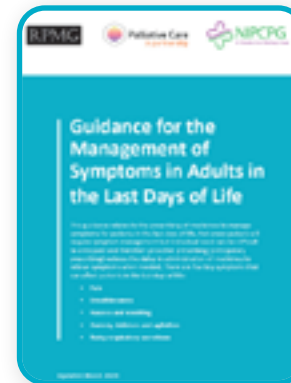
Regional Guidance and Resources

The incidents included in this review relate to the management of syringe pumps and complex medications within the context of palliative and end of life care.

The breadth of current guidance relates to safety and quality drawn from across this area of care:

NICE National Institute for Health and Care Excellence

- <https://bnf.nice.org.uk/medicines-guidance/prescribing-in-palliative-care/>
- <https://cks.nice.org.uk/topics/palliative-care-secretions/prescribing-information/administering-drugs-via-syringe-driver/>
- <https://www.nice.org.uk/guidance/ng31>
- <https://cks.nice.org.uk/topics/palliative-cancer-care-pain/>



NEW QR CODES TO SUPPORT CARE IN THE LAST DAYS OF LIFE

To support easy access for our clinicians the Palliative Care in Partnership (PCiP) Programme have developed the QR codes attached which give direct access to the recently updated 2023 versions of the **RPMG Guidance for the Management of Symptoms in Adults in the Last Days of Life and the Northern Ireland Guidelines on Converting Doses of Opioid Analgesics for Adult Use.**

These documents have been converted into webpages and the QR codes will take both Apple and Android users directly to the documents in the Resources Library of the PCiP Programme website.



All those administering medication must have immediate access to current evidence regarding symptom management within palliative care including appropriate use of medications to minimise the risk of error.

Resources include:

- British National Formulary (BNF) - <https://bnf.nice.org.uk/>
- [Medicines Complete Drug Compatibility checker](#) (password required) may be accessible within organisations
- Some organisations may provide palliative care drug information on their MicroGuide app
- [Palliative Care information & Guidance - Palliative Care in Partnership](#)





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Next Steps

Regional workstreams lead by Peter Armstrong, Regional Consultant Pharmacist in Palliative Care and Sally Convery PHA Nurse Consultant for Palliative and End of Life Care, will be progressed through the auspices of Palliative Care In Partnership. This will enable standardised practice and support safe and effective use of a syringe pump when caring for someone with palliative care needs.

This work will include:

- The development of a regional syringe pump guidance
- The review of prescription and administration documentation
- Standardised training on the current range of BD syringe pumps
- Development of systems to support electronic authority to administer
- Regional patient information leaflet
- Training and Education

For further information please contact:

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Palliative Care
in partnership

