



Anticipatory Prescribing in Palliative Care



Access to medication in the Community

One of the factors that helps ensure good care for patients dying at home is the availability of adequate medication, especially out-of-hours. This information sheet looks at two methods of achieving this: the Just in Case box, and individualised “Targeted Anticipatory Prescribing”. This information is intended for GPs looking after patients in their own homes or nursing home.

Background

When a patient with end-stage advanced cancer (or other terminal illness) deteriorates acutely at home with symptoms like pain or breathlessness, it may be their wish to remain at home and be treated palliatively.

The delay of waiting to see an out-of-hours doctor, and then to find a chemist open which stocks the drugs can be extremely distressing for both patient and their family.

Two methods of anticipating these situations are the Just in Case box, and a more individualised type of anticipatory prescribing. Both of them aim to optimize end-of-life care for patients at home, and may help to prevent unnecessary admissions to hospital.

Suitable patients may be identified at regular palliative care meetings in the GP practice, or by the specialist palliative care teams.

Anticipatory prescribing can be considered as part of Advance Care Planning for the patient.



Just in Case Box

The Just in Case box is an All-Wales scheme which has been approved by the Welsh Assembly Government. A sealed box with standard contents can be prescribed on WP10 and dispensed from participating community pharmacies. It contains injectable drugs for common symptoms such as pain, breathlessness, anxiety or agitation, and is suitable for palliative care patients in the last months of their life. The scheme includes a robust system of audit and control.

The box contains enough drugs to achieve initial symptom control or to last overnight, but additional drugs may be needed if a syringe driver is required, or to cover a weekend. In cases where patients are already on significant doses of opioids, or when the circumstances of their likely deterioration can be anticipated, a more individualised approach to prescribing is appropriate.

A Just in Case box



Choice of drugs

Diamorphine (or alternative), cyclizine, hyoscine hydrobromide and midazolam are the four commonest drugs used in the last few days of life, and are the drugs recommended in the All-Wales Last Days of Life Care Priorities document (care pathway). The 4 drugs will cover most symptom control needs in palliative care. Haloperidol or levomepromazine are used less frequently for additional management of nausea or agitation.

Just in Case box

If a patient has a diagnosis of a terminal illness and is considered to have a **prognosis of a few months**, consider prescribing a Just in Case box. In addition to writing the prescription for the Just in Case Box, you should also consider whether it is appropriate to sign a **drug authorisation for the district nurses** to administer the drugs on a PRN basis.

Prescribing a Just in Case box

1. Identify patient
2. Obtain patient's permission
3. Offer an Information Leaflet*
4. Issue WP10 for full contents of Just in Case box
5. The prescribing GP should complete a Notification Form* which should accompany the prescription to the community pharmacy
6. Complete a drug authorisation chart (in the box) to authorise nurses to administer drugs, if appropriate
7. Refer to the community nursing team for assessment & the introduction of nursing notes into the home
8. Inform the out of hours service that a just in case box has been provided

Contents of a Just in Case box

To prescribe a Just in case box, a WP10 for the contents should be produced in the usual way; the exact drugs & quantities must be prescribed. **CD prescription requirements apply** to the diamorphine & midazolam, including dosage instructions.

"10mg to be administered as directed" is a suitable instruction, whereas just *"as directed"* or *"as required"* is **not** suitable.

Diamorphine 10mg ampoules x2
Diamorphine 30mg ampoules x2
Hyoscine Hydrobromide 400microgm/mL ampoules x3
Cyclizine 50mg/mL ampoules x3
Midazolam 10mg/2mL ampoules x4
Water for Injection 10mL ampoules x2

Follow up

Administration of any drug from the box must be recorded on the administration sheet (supplied with the box) as well as in medical records. When a drug has been administered from the box, the patient's GP should be informed as soon as possible. This will allow a re-assessment of the situation, and supply of further medication to be initiated as appropriate.

When the pack is no longer required, the pharmacy should be informed, and the pack must be returned to the supplying pharmacy by the patient's family or carers, or a member of the healthcare team if absolutely necessary.

Further Information

*Further information on the Just in Case boxes and Last of Life Care Pathway can be found at <http://wales.pallcare.info> including the Information leaflets and Notification Forms. Guidelines on prescribing can be found at <http://book.pallcare.info> which also has an on-line calculator to convert doses between different strong opioids.

Example 1

You are looking after a patient with bowel cancer. She is receiving palliative chemotherapy but her condition is slowly deteriorating. You feel that her prognosis is likely to be only a few months.

On discussion with her it is clear that she is frightened of being in pain (which she does not currently have), and that quality of life is her priority. She wishes to remain at home "at all costs", and is realistic about her prognosis.

You should consider prescribing the Just in Case box, and a drug authorisation for PRN administration.

Example 2

A patient with NYHA Stage IV heart failure has been told by his cardiologist that there is little more they can do to help his condition. You estimate his prognosis to be less than 6 months, but probably more than a few weeks. He has said that he does not want to go into hospital unless it is absolutely necessary.

During his last admission to hospital he had a chest infection treated with antibiotics, and the patient would not rule out further active treatment if it is appropriate, You consider that it is quite possible that this patient will deteriorate, and this could happen fairly acutely out-of-hours in circumstances where palliative control of his symptoms at home would be appropriate.

You should consider prescribing a Just in Case box, which would reduce delay in accessing injectable drugs for pain or breathlessness.

However you may decide not to write a drug order to allow the district nurses to administer these drugs without further medical assessment of the patient, as it is difficult to anticipate the circumstances in which they may be needed.

Is it Safe?

The Just in Case box scheme has been approved by WAG and the CMO for Wales. The use of sealed boxes and a close audit trail will prevent widespread abuse, and the small risk of theft of controlled substances, and the cost of the scheme are deemed to be outweighed by an improved quality of end-of-life care.

Targeted Anticipatory Prescribing

If a patient is considered to be in the **last few weeks of life**, or is being cared for using the **Last Days of Life Care Priorities document (care pathway)**, you should ensure that there is PRN medication available in the home to control pain, breathlessness, vomiting, anxiety/agitation, and death rattle. This will usually be covered by prescribing diamorphine (or alternative), cyclizine, midazolam and hyoscine hydrobromide for PRN SC injection. You should also consider any other predictable complications specific to the patient e.g. seizures or colic.

The tables in this document suggest appropriate quantities to prescribe to cover a 3 day period (Friday night to Monday morning). Larger quantities should be prescribed before Bank Holiday weekends, Easter, Christmas breaks etc.

Example 3

A patient with metastatic lung cancer is deteriorating rapidly and he is keen to stay at home. He is taking M.S.T 30mg b.d. and cyclizine 50mg t.d.s. You estimate his prognosis to be less than a few weeks. He is still just managing to take his oral medication at present.

As it is likely that he will need a syringe driver in the near future, and you can anticipate his likely needs, you should consider prescribing drugs needed for a syringe driver as well as PRN drugs for end-of-life care (targeted anticipatory prescribing).

Suitable drugs to prescribe for a syringe driver would be based on his current needs:

- diamorphine 20mg/24hr and
- cyclizine 150mg/24hr

Suitable PRN medication would be:

- diamorphine 5mg SC PRN 4-hourly (based on 24hr dose) - pain or breathlessness
- cyclizine 50mg SC PRN 8-hourly - nausea & vomiting
- midazolam 2.5-5mg SC PRN 4-hourly - anxiety / agitation
- hyoscine hydrobromide SC PRN 0.4mg 4-hourly - death rattle

To determine the quantities to prescribe, look at the tables which follow and refer to the regular daily dose in the left column. Unless there is a Bank Holiday looming, prescribe for 3-days to cover a weekend:

- diamorphine (daily dose=20mg) 10mg ampoules x15
- cyclizine (daily dose=150mg) x15 ampoules (50mg/1mL)
- midazolam (daily dose=nil) x10 ampoules (10mg/2mL)
- hyoscine hydrobromide (daily dose=nil) x20 ampoules (0.4mg/1mL)

These quantities are sufficient to provide for both a syringe driver and PRN doses for 3 days.

The following tables give suggested quantities to prescribe, based on the patient's requirements

Cyclizine (50mg in 1mL amps.)

Daily dose	SC PRN	3 days	4 days	5 days
-	50mg PRN 8hrly	15	15	15
150mg/24h	50mg PRN 8hrly	15	20	25

Hyoscine hydrobromide (0.4mg in 1mL amps.)

Daily dose	SC PRN	3 days	4 days	5 days
-	0.4mg PRN 4hrly	20	20	20
1.6mg/24h	0.4mg PRN 4hrly	20	25	30

Levomepromazine‡ (25mg in 1mL amps.)

Daily dose	SC PRN	3 days	4 days	5 days
-	6.25mg PRN 4hrly	10	10	10
12.5mg	6.25mg PRN 4hrly	10	15	15

(Same prescription required for 6.25mg - 25mg/24h and up to 25mg 4hrly PRN)

‡ If required

Midazolam (10mg in 2mL amps)

Daily dose	SC PRN	3 days	4 days	5 days
-	2.5-5mg PRN 4hrly	10	10	10
10mg/24h	2.5-5mg PRN 4hrly	10	20	20
20mg/24h	5mg PRN 4hrly	20	20	20
40mg/24h	5-10mg PRN 4hrly	20	30	30
60mg/24h	10mg PRN 4hrly	30	40	40

Haloperidol‡ (5mg in 1mL amps.)

Daily dose	SC PRN	3 days	4 days	5 days
-	2.5-5mg PRN 8hourly	10	10	10
2.5mg/24h (up to 5mg/24h)	2.5-5mg PRN 8hourly	10	15	15
10mg/24h	5mg PRN 4hrly	15	20	20

‡ If required

Diamorphine (10mg, 30mg, 100mg amps.)

Daily dose	SC PRN	3 days	4 days	5 days
-	2.5-5mg PRN 4hrly	15 x 10mg	15 x 10mg	15 x 10mg
10mg/24h	2.5-5mg PRN 4hrly	15 x 10mg	20 x 10mg	20 x 10mg
20mg/24h	5mg PRN 4hrly	15 x 10mg	20 x 10mg	25 x 10mg
30mg/24h	5mg PRN 4hrly	5 x 30mg 10 x 10mg	5 x 30mg 15 x 10mg	10 x 30mg 15 x 10mg
40mg/24h	5-10mg PRN 4hrly	5 x 30mg 15 x 10mg	10 x 30mg 15 x 10mg	10 x 30mg 20 x 10mg
50mg/24h	5-10mg PRN 4hrly	10 x 30mg 10 x 10mg	10 x 30mg 15 x 10mg	15 x 30mg 20 x 10mg
60mg/24h	10mg PRN 4hrly	10 x 30mg 10 x 10mg	10 x 30mg 15 x 10mg	15 x 30mg 20 x 10mg

Oxycodone (10mg in 1mL, 20mg in 2mL, 50mg in 1mL)

Daily dose	SC PRN	3 days	4 days	5 days
-	2.5-5mg PRN 4hrly	15 x 10mg	15 x 10mg	15 x 10mg
10mg/24h	2.5-5mg PRN 4hrly	15 x 10mg	20 x 10mg	25 x 10mg
20mg/24h	5mg PRN 4hrly	15 x 10mg	25 x 10mg	30 x 10mg
30mg/24h	5mg PRN 4hrly	20 x 10mg	25 x 10mg	10 x 20mg 15 x 10mg
40mg/24h	5-10mg PRN 4hrly	20 x 10mg	10 x 20mg 15 x 10mg	15 x 20mg 15 x 10mg
50mg/24h	5-10mg PRN 4hrly	5 x 50mg 10 x 10mg	5 x 50mg 15 x 10mg	5 x 50mg 20 x 10mg
60mg/24h	10mg PRN 4hrly	5 x 50mg 10 x 10mg	5 x 50mg 15 x 10mg	10 x 50mg 15 x 10mg

Morphine (10mg in 1mL, 30mg in 1mL amps.)

Daily dose	SC PRN	3 days	4 days	5 days
-	5mg PRN 4hrly	15 x 10mg	20 x 10mg	25 x 10mg
20mg/24h	5mg PRN 4hrly	15 x 10mg	20 x 10mg	25 x 10mg
30mg/24h	5mg PRN 4hrly	5 x 30mg 10 x 10mg	5 x 30mg 15 x 10mg	10 x 30mg 15 x 10mg
40mg/24h	5-10mg PRN 4hrly	5 x 30mg 15 x 10mg	10 x 30mg 15 x 10mg	10 x 30mg 20 x 10mg
60mg/24h	10mg PRN 4hrly	10 x 30mg 10 x 10mg	10 x 30mg 15 x 10mg	15 x 30mg 20 x 10mg
90mg/24h	15mg PRN 4hrly	10 x 30mg 15 x 10mg	15 x 30mg 20 x 10mg	20 x 30mg 25 x 10mg

Diamorphine Alternatives

Morphine (10mg/mL and 30mg/mL ampoules) or oxycodone (10mg/1mL, 20mg/2mL or 50mg/1mL) are used as alternatives to diamorphine in some circumstances, and will mix with other drugs in a syringe driver similar to diamorphine.

Equivalent Doses

Orally (24h dose)

Morphine 30mg
Oxycodone 15mg

By Injection (24h dose)

Diamorphine 10mg
Oxycodone 10mg
Morphine 15mg

Water for injection 10mL x 10 ampoules should be added to every prescription

Opioid Patches

For patients on opioid patches, a prescription should include diamorphine to cover the need for PRN or increase in analgesia.

First, calculate the equivalent diamorphine daily dose of the opioid patch (e.g. fentanyl 25µg/h patch → diamorphine 30mg/24h).

To decide how many ampoules to prescribe, look in the table at the row corresponding to approximately $\frac{1}{2}$ - $\frac{2}{3}$ of this dose i.e. 20mg/24h.

How quantities are calculated

The table shows the approximate number of ampoules required for these periods:

- allowing for an average use of 2 x PRN doses/day of each drug
- allowing for 2 increments in dose of the opioid analgesic over the days
- midazolam only comes in 10 ampoules/box; the rest are rounded up to the nearest 5 ampoules