Information for Prescribers

The CARiAD package is about **carer-administration** of **subcutaneous (SC) as-needed** medication for **five common symptoms** in the last days of life. This will allow the carer(s) the option to treat breakthrough symptoms without having to wait for an health care professionals (HCPs) visit.
This leaflet does not intend to suggest changes to your usual way of anticipatory prescribing (e.g. drug choice, dosing, use of usual HCP prescription/medication administration chart), instead, it explains additional and specific considerations pertaining to prescribing for patients supported by the CARiAD package.

It does not cover

- oral as-needed medication,
- the administration of medication via continuous SC infusion (CSCI, e.g. syringe driver or pump), or
- as-needed SC medication for any other indication (including seizures or massive terminal haemorrhage). For these, please follow existing advice and procedure.

Safety considerations

- **The carer(s) will only be allowed to administer a maximum of three SC doses of medication for the same indication in any 24 hour period**. If a symptom is not controlled, it should trigger HCP review through the usual mechanisms and might result in a change of prescription. If three doses (for the same indication in a 24 hour period) have been given by the carer(s), all further doses in that 24 hour period should be given by a HCP.
- Any patient receiving carer-administered SC medication will be **reviewed by a HCP on a regular (ideally daily) basis**.
- If prescribing **dose steps (also referred to as choice of dose or dose ranges)** (e.g. '2.5 to 5mg', or '2.5 or 5mg') is usual practice for HCPs in your area, carefully consider the risks versus benefits *before* advising this for carer-administration. If dose steps for carer-administration are agreed, it is the clinical team's responsibility to ensure that the carers are willing, capable, not over-burdened, and have full understanding of the options available to them.
- As per usual practice, **a HCP should only change a prescription following an appropriate assessment**. Discussion with carer(s) over the telephone may not provide this. **The carer(s) must not exceed the prescribed doses or frequency of administration.**
- **Be aware of dose volumes to ensure ease of drawing up for carers.** This may mean you either prescribe a full ampoule per dose, or suggest an ampoule size that is easy for the carer to draw up or waste in part. Unless Diamorphine is specifically indicated (usually because of the use of higher doses), please avoid its use as the carer will need to reconstitute it. A quick guide of Diamorphine: Morphine conversion can be found at the end of this document.
- Although it is usual practice to prescribe as-needed SC medication for all five common symptoms, **you are under no obligation to prescribe for all these indications** if you deem it not appropriate (including in terms of number of injections available to the carer to give) in specific cases. It may therefore be the case that not all SC as-needed drugs are prescribed for the carer to give.
- **The carer(s) will be provided with detailed written information for each drug**, including the name, dose, indication, the exact volume required from an ampoule for the prescribed dose (especially if it is not a full ampoule), likely undesirable effects, the time before a repeat dose is permitted and the maximum number of injections per 24 hours. The HCP, after having trained the carer(s), will complete a section in the Carer Diary detailing the drug information (referred to as the medication information

table). The information in the medication information table in the Carer Diary is not intended to act as a prescription, so, as a prescriber, you will still need to complete the usual prescription/medication administration chart for HCP use. Prescribing suggestions are provided in the table below.

Carer (s) will be instructed to assess the response of as-needed medication effects after about one hour post-administration. If at any time (even if this is within this one hour window) the carer(s) feel(s) a symptom is worsening or not lessening at all, despite appropriate as-needed medication, they should inform their HCP team without delay. The call is likely to trigger the need for a direct (face-2-face) assessment to rule out any new or reversible causes for the symptom.

In line with nationally accepted practice for anticipatory prescribing, existing local guidance and taking into account the above safety considerations, the as-needed SC medication(s), doses and maximum frequency of administration for each of these indications are:

Symptoms	**Medication classes and licensing**	**Prescribing suggestions**
Pain and Breathlessness	▪ A strong opioid e.g. morphine (first line) or oxycodone (second line)	▪ One sixth of the 24 hour background dose of strong opioid PRN 4-hourly ▪ If not on background strong opioids, consider a starting dose of morphine 2.5 or 5mg PRN 4 hourly
	If the prescribed dose of opioid has not taken affect after one hour, carer(s) could/may be advised (after careful consideration by the HCP team), that they can give one further dose and then inform their HCP team that this has happened. After this 'second' dose, the carer should not give any further opioid for pain for another four hours.	
Nausea and vomiting	▪ Any anti-emetic deemed appropriate for the likely cause	▪ e.g. Cyclizine 50 mg PRN 8-hourly (usual maximum dose in 24 hours = 150mg), or ▪ Levomepromazine 6.25 mg PRN 4 hourly (usual maximum dose in 24 hours = 25mg)
Anxiety or Agitation/restlessness	▪ Benzodiazepines (midazolam) or antipsychotics	▪ e.g. starting dose of Midazolam 2.5 or 5 mg PRN 4-hourly
	If the prescribed dose of midazolam has not taken affect after one hour, carer(s) could/may be advised (after careful consideration by the HCP team), that they can give one further dose and then inform their HCP team that this has happened. The HCP may wish to consider the use of antipsychotics at this point. After this 'second' dose, the carer should not give any further midazolam for any other indication for another four hours.	
Noisy 'rattly' breathing	▪ Antimuscarinics	▪ e.g. Hyoscine hydrobromide 400 mcg PRN 4 hourly, or ▪ Glycopyrronium 200 mcg PRN 4 hourly

Using morphine (rather than diamorphine) as first line: Diamorphine SC: Morphine SC is 2:3, thus for quick reference:

- 5mg of Diamorphine SC = 7.5mg of Morphine SC
- 10mg of Diamorphine SC = 15mg of Morphine SC
- 15mg of Diamorphine SC = 22.5mg of Morphine SC
- 20mg of Diamorphine SC = 30mg of Morphine SC
- 30mg of Diamorphine SC = 45mg of Morphine SC