Renal Liverpool Care Pathway

A pathway recommended for use

In: Ward 6B
Renal patients outlying on general wards
General wards

By: Nurses & Doctors caring for renal patients requiring palliation

For: Palliative care of patients with advanced chronic kidney disease.
Consideration for general patients with signs & symptoms of uraemia unable to tolerate morphine

Key words: Renal, LCP, Care, Pathway.

Written by and contributed to:
  Dr Katherine Myers Palliative Care Consultant (Adapted from the National Renal LCP)
  Ken Lawson Renal Education and Training
  Dr Barbara Thompson Consultant Nephrologist
  Clare Morlidge Renal Pharmacist

Authorised by:
  Dr Suresh Mathavakkannan, CD
  Martina Bowser, NSM
  Jo Emery, CGC

Signature

Date 29/01/13

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To be reviewed by: Senior renal team and palliative care consultant
Pathway supersedes: Renal Liverpool Care Pathway-PtC LCP 2. Oct 2011

Location of archived copy: Archived electronic documents can be found on the Renal database in ‘User Shared’, ‘Renal Policies and Procedures’
1) BACKGROUND

In 2005 the national LCP (Liverpool Care Pathway) renal steering group was developed to facilitate the LCP for use in specialist renal areas. The renal LCP gives clear guidance and advice on medicines management and control of distressing symptoms. Renal impairment is an important consideration when prescribing drugs especially opioids which accumulate in renal impairment.

The renal LCP takes the same form as the standard LCP document used in the Trust with respect to the initial assessment, ongoing assessments and care after death. The renal LCP drug algorithms are significantly different, however. The drug algorithms used in the Trust renal LCP document follow the national renal LCP algorithms with the following exceptions:

- Parenteral oxycodone is not on the hospital formulary so this has been omitted from the pain and breathlessness algorithms
- S/C diamorphine is used routinely in palliative care in the Trust instead of sc morphine as it is more soluble, so this has been substituted for s/c morphine in the pain and breathlessness algorithms

A guide for opioid prescribing for patients on renal LCP is given in appendix 1. *Doctors needing advice about which drug or which dose to use must contact the specialist palliative care team for advice.*

The renal LCP and renal algorithms are printed on purple paper to distinguish them from the standard LCP documents.

This policy document should be used in conjunction with LCP documents available on ward 6B and on the renal intranet under ‘ward care plans’. The drug algorithms and supporting prescribing information (see appendices) are also available in the Prescribing Guide on the hospital intranet (see under application links/prescribing guide, renal LCP in the front page).

2) PURPOSE

The renal LCP should be used when the multidisciplinary team has agreed that all reversible causes of the patient’s condition have been considered, and that the patient is dying. This process should include discussion with the relatives and possibly the patient, the views of all concerned must be taken into account and documented.

3) SCOPE

The renal LCP is appropriate for use in:

- All patients with advanced chronic kidney disease in the last hours or days of life
- Use of the renal LCP rather than the standard LCP should be considered if a patient on a general ward has:
  a. signs and symptoms of uraemia and
  b. demonstrated intolerance of morphine

Under these circumstances, please discuss with the consultant in charge or the palliative care team.
4) CLINICAL RESPONSIBILITY

DOCTORS

The decision for a patient to commence the LCP must be endorsed by the most senior doctor caring for the patient. As soon as possible after this decision has been made, a member of the medical team should fill in the LCP initial assessment, with a nurse if possible, and ensure that the LCP anticipatory medication is prescribed as per the drug algorithms (see appendix 2 for summary sheet).

All unnecessary medication and interventions should be stopped. Medication or interventions considered essential to maintain comfort may be continued but should be documented as a variance on the relevant section of the LCP paperwork.

For those patients discharged into the community for terminal care who may require the renal LCP, please refer to appendix 3 in order to supply adequate stocks of anticipated medication.

NURSES

Jointly complete with a doctor section 1 of the LCP continuing care document.

Assess and document effect of medication.

Complete daily the section 2 “ongoing assessment of the plan of care” of the LCP.

Ensure that the ward has stocks of all the drugs that might be required. If not, order them from pharmacy immediately.

When discharging a patient ensure that a copy of the renal LCP is sent with the patient for the district nurses information.

5) MONITORING COMPLIANCE

The standard of completion of the LCP paperwork is audited every two years as part of the national LCP audit programme. The palliative care team carry out internal audits on a regular basis. The ward’s palliative link nurse will undertake an internal audit on documentation standards of the LCP, on a six monthly basis.

6) REFERENCES


7) FURTHER READING


**Pain**

**Patient is in pain**

- **Is patient already taking oral opioids?**
  - **YES**
    - If patient is already taking strong opioids, **Contact the Specialist Palliative Care team for Advice**, if they are not available then please contact OOH helpline.
  - **NO**
    - 1. Fentanyl 25-50 micrograms S/C prn
      - If fentanyl is temporarily unavailable *
    - If patient is already taking strong opioids, **Contact the Specialist Palliative Care Team for Advice**, if they are not available then please contact the OOH helpline.

2. If three or more doses are required over 24 hours consider starting a S/C Syringe Driver of Fentanyl or Alfentanil.
3. Fentanyl 100-250 micrograms in a syringe driver over 24hrs, prn dose should be 1/8th of the 24hr dose

**EXAMPLE:**
- 100 micrograms /24hrs give 12.5 micrograms prn, for
- 200 micrograms /24hrs give 25 micrograms prn

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**EXAMPLE:**
- 100 micrograms /24hrs give 12.5 micrograms prn, for
- 200 micrograms /24hrs give 25 micrograms prn

*If Fentanyl is temporary unavailable use Diamorphine 1.25-2.5 milligrams S/C prn

**Supportive Information**

- To convert from other strong opioids contact Specialist Palliative Care Team / Pharmacy for further advice & support as needed
- If Fentanyl dose exceeds 500 micrograms in a Syringe Driver seek expert advice for conversion to Alfentanil
- Do not use diamorphine by continuous S/C infusion because of the high risk of accumulation and adverse effect

**If symptoms persist contact the Specialist Palliative Care Team**

9-5pm Lister Bleep 4035 or 1390, ext 4035; QEII Bleep 0120, ext 4864; or weekends and bank holidays via switch board

OOH helpline: Garden House Hospice 01462 679540 or Isabel Hospice Advice Line 01707 328575
Terminal restlessness and agitation

- **Present**
  - 1. Midazolam 2.5 milligrams S/C prn
  - **Agitation still present?**
    - **Yes**
      - 2. Review the required medication after 24hrs, if three or more prn doses have been required then consider a S/C syringe driver over 24hrs (Midazolam 5 - 10 milligrams S/C) over 24 hrs in a Syringe Driver
      - 3. Continue to give prn dosage accordingly

- **Absent**
  - Midazolam 2.5 milligrams S/C prn

If symptoms persist contact the Specialist Palliative Care Team
9-5pm Lister Bleep 4035 or 1390, ext 4035; QEII Bleep 0120, ext 4864; or weekends and bank holidays via switch board
OOH helpline: Garden House Hospice 01462 679540
Isabel Hospice Advice Line 01707 328575
Respiratory tract secretions

Present

1. Glycopyrronium 200 micrograms (0.2 milligrams) S/C prn.

2. Continue to give S/C prn dosage accordingly

3. If three or more doses of prn Glycopyrronium are required then consider a S/C syringe driver with 600 - 1800 micrograms (0.6 - 1.8 Milligrams) S/C over 24hrs

Absent

Glycopyrronium 200 micrograms (0.2 milligrams) S/C prn

- Hyoscine butylbromide 20 milligrams S/C prn may be used as an alternative. If a S/C Syringe Driver is required then consider Hyoscine butylbromide 40 -120 milligrams over 24 hr

If symptoms persist contact the Specialist Palliative Care Team

9-5pm Lister Bleep 4035 or 1390, ext 4035; QEII Bleep 0120, ext 4864; or weekends and bank holidays via switch board

OOH helpline: Garden House Hospice 01462 679540
Isabel Hospice Advice Line 01707 328575
Dyspnoea

**Present**

Is patient already taking oral opioids for breathlessness

**YES**

If patient is already taking strong opioids, Contact the Specialist Palliative Care Team for Advice, If they are not available then please contact the OOH Helpline

**NO**

Fentanyl 25-50 micrograms S/C prn

*If Fentanyl is unavailable*

**Absent**

Fentanyl 25-50 micrograms S/C prn

*If Fentanyl is unavailable*

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2. If three or more doses are required over 24 hours consider starting a S/C Syringe Driver of Fentanyl or Alfentanil.

3. Fentanyl 100-250 micrograms in a syringe driver over 24hrs, prn dose should be 1/8th of the 24 hr dose

**EXAMPLE:**

- 100 micrograms / 24hrs give 12.5 micrograms prn
- 200 micrograms / 24hrs give 25 micrograms prn

*If Fentanyl is temporary unavailable use Diamorphine 1.25 - 2.5 milligrams S/C prn

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**SUPPORTIVE INFORMATION:**

- To Convert from other strong opioids contact Specialist Palliative Care Team / Pharmacy for further advice & support
- If Fentanyl dose exceeds 500 micrograms in a Syringe Driver seek expert advice for conversion to Alfentanil
- If the patient is breathless and anxious consider Midazolam 2.5 milligrams S/C prn

**If symptoms persist contact the Specialist Palliative Care Team**

9-5pm Lister Bleep 4035 or 1390, ext 4035; QEII Bleep 0120, ext 4864; or weekends and bank holidays via switchboard

**OOH helpline:** Garden House Hospice 01462 679540

Isabel Hospice Advice Line 01707 328575

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**Clinical Governance Co-ordinator:**

Jo Emery
**Nausea and vomiting**

**Present**

Haloperidol 0.5 - 1.5 milligrams S/C prn

Review the required medication after 24hrs, if three or more prn doses have been required then consider Haloperidol 1.5 - 3 milligrams in a S/C syringe driver over 24hrs

**Absent**

Haloperidol 0.5 - 1.5 milligrams S/C prn

**SUPPORTIVE INFORMATION:**

- Levomepromazine 6.25 milligrams S/C prn – *Suitable alternative second line*. If a Syringe Driver is required then consider 6.25 milligrams S/C in a Syringe Driver over 24 hrs.

Cyclizine is not usually recommended

If symptoms persist contact the Specialist Palliative Care Team

9-5pm Lister Bleep 4035 or 1390, ext 4035; QEII Bleep 0120, ext 4864; or weekends and bank holidays via switchboard

OOH helpline: Garden House Hospice 01462 679540

Isabel Hospice Advice Line 01707 328575
Appendix 1

Opioid Prescribing for Patients on Renal LCP

The renal LCP uses fentanyl and alfentanil rather than diamorphine wherever possible, because their metabolites do not accumulate to the same extent in renal failure and the likelihood of opioid toxicity is reduced.

Always be very careful to check dose units: do not confuse micrograms (mcg) and milligrams (mg)

Approximate conversion ratios for sc doses

Diamorphine to alfentanil 10:1
Alfentanil to fentanyl 5:1

Subcutaneous prn stat doses

Fentanyl is used prn wherever possible rather than alfentanil because of longer duration of action (60 min compared with alfentanil 30 mins). If neither fentanyl nor alfentanil is available, use diamorphine rather than leave the patient without analgesia.

- Diamorphine 1.25 mg == Fentanyl 25 micrograms
- Diamorphine 2.5 mg == Fentanyl 50 micrograms
- Diamorphine 5 mg == Fentanyl 100 micrograms

Syringe drivers doses:

TAKE CARE TO PRESCRIBE mg OR mcg CORRECTLY

<table>
<thead>
<tr>
<th>Diamorphine mg</th>
<th>Alfentanil mg</th>
<th>Fentanyl mcg</th>
<th>prn Fentanyl mcg</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
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<td>50</td>
<td>6.25</td>
</tr>
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<td>25</td>
</tr>
<tr>
<td>25</td>
<td>2.5</td>
<td>500</td>
<td>62.5</td>
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</tbody>
</table>

- If fentanyl dose in driver > 500 micrograms, switch to alfentanil
- For fentanyl drivers, fentanyl breakthrough / prn dose is 1/8th of dose in driver

Preparations

- Fentanyl injection: 50 micrograms/ml in 2ml (100 micrograms) and 10ml (500 micrograms) amps
- Alfentanil injection: 500 micrograms/ml in 2 ml (1 mg)amps
- Alfentanil ICU strength 5mg/ml in 1 ml (5 mg) amps
Appendix 2

Anticipatory Prescribing for Renal Liverpool Care Pathway

For use in conjunction with the renal LCP algorithms

Please read the renal LCP drug algorithm documents before prescribing these drugs

Fentanyl 25-50 micrograms sc pm 1-2 hourly  or

Diamorphine 1.25mg sc pm 1-2 hourly if fentanyl is unavailable

Midazolam 2.5 mg sc pm

Glycopyrronium 200 micrograms sc max 1200 micrograms in 24 hours

Haloperidol 0.5 – 1.5 mg sc pm

Notes:
Always use sc route – not im or iv
Always prescribe fentanyl in micrograms (mcg), never milligrams (mg)

If the patient is already taking a strong opioid contact the Palliative Care Team or Pharmacy for advice

If symptoms persist contact the palliative care team:
Lister bl 4035 or 1390, x 4035
QEIII bl 0120 or 1669, x 4864

or via switch board at weekends and bank holidays

For advice in evenings and overnight:
Garden House Hospice Advice Line 01462 679540
Isabel Hospice Advice Line 01707 382575
Appendix 3

Just in Case Medication for Renal LCP

These drugs may be issued to patients being discharged for terminal care who may require the renal LCP once in the community

Please write up on:
   i) TTA order
   ii) District nurse prescription form

Fentanyl and midazolam are controlled drugs so quantities must be written in words and figures

For discharges on Fridays or before a Bank Holiday, please prescribe a supply of 10 amps of each injection

Pain
   • Fentanyl inj 100 micrograms in 2ml x 5 amps
     Dose: Fentanyl 25-50 micrograms sc pm 1-2 hourly

Agitation
   • Midazolam inj 10mg in 2ml x 5 amps
     Dose: Midazolam 2.5 mg sc pm 4 hourly

Respiratory secretions
   • Glycopyrrolate inj (glycopyrronium) 200micrograms in 1ml x 5 amps
     Dose: Glycopyrronium 200 micrograms sc pm max 1200micrograms in 24 hours

Nausea and vomiting
   • Haloperidol inj 5mg in 1 ml x 5 amps
     Dose: Haloperidol 0.5 – 1.5 mg sc pm max bd-tds

Water for injection
   • 5ml x 20 amps

For further advice please contact the hospital palliative care team
Lister x 4035, QEII x 4864 or via switch board at weekends and bank holidays