



Palliative Care: Oral Morphine Initiation and Dose Titration Guide for Opioid Naïve Patients

- Use morphine with caution if creatinine clearance $<30\text{mL}/\text{min}^1$
- Start with short-acting preparations
- Convert to slow release (SR) after dose titration of 1 to 2 days (longer if patients are elderly or frail)
- If SR started without dose titration, the initial dose should be no higher than morphine SR 10mg BD

Start with short-acting morphine:

Use brand name: RA Morph[®] liquid or Sevredol[®]
Suggested starting dose: 2.5-5mg every 4h PRN (can use every hour if closely monitored)
Use 2.5mg if elderly, renally impaired or cachectic

Increase strength of PRN dose:

If pain control is inadequate after 3 PRN doses with no evidence of morphine toxicity², increase the PRN dose by 2.5-5mg
If pain control remains inadequate after 3 more PRN doses, further dose increases can be made (30-50% of previous PRN dose)

Converting to SR preparation:

Use brand name: LA Morph[®] or m-Eslon[®]
After 24-48h the morphine requirement should be known and an SR preparation can be started
Add the total 24h dose of short-acting morphine used and divide by 2 to prescribe two SR morphine doses every 12h
Example Used 6 x 7.5mg RA Morph[®] liquid in 24h = 45mg/24h = 22.25mg SR morphine in 12h
Prescribe: 20mg LA Morph[®] or m-Eslon[®] every 12h (nearest tablet or capsule strength)

Also prescribe PRN short-acting morphine for breakthrough pain:

Use $\frac{1}{6}$ (17%) of total daily morphine dose; in some patients 10% of the total daily dose will be adequate

Example 20mg m-Eslon[®] every 12h = 40mg/24h
One sixth = 6.6mg
Prescribe: 5-7.5mg RA Morph[®] or Sevredol[®] PRN up to every 4h (can use every hour if closely monitored)

Do not use SR morphine for breakthrough pain (it takes too long to work)

If more than 3 doses/24h of PRN morphine are consistently required, increase the background dose of SR morphine:

Add total PRN morphine used in last 24h and divide by 2. Add 50–100% of this to each 12h SR morphine dose

Example 20mg m-Eslon[®] every 12h
Used 4 x 7.5mg RA Morph[®] liquid in 24h = 30mg/24h
Add 10mg to each 20mg m-Eslon[®] dose
Prescribe: 30mg m-Eslon[®] every 12h

Remember to increase the PRN dose so it remains about $\frac{1}{6}$ of the total 24h SR dose

For all patients on opioids also prescribe:

A combination laxative (stool softener + stimulant eg Laxsol[®])³
An antiemetic for PRN use (metoclopramide 10mg TDS is an appropriate choice in most patients)

Monitoring and managing side effects or morphine toxicity^{2,4}

If pain is well controlled, try reducing the dose. Check renal function as acute renal impairment can result in morphine and metabolite accumulation.¹ If this is the case, consider switching to another opioid.

If pain persists despite dose escalation and/or adverse effects or toxicity are present, seek specialist advice.

¹ The opioid of first choice if creatinine clearance is $<30\text{ ml}/\text{min}$ is fentanyl which can be given **subcutaneously** at low starting doses (10 – 25 micrograms subcut). Oxycodone is occasionally used in low doses with caution if creatinine clearance $>10\text{ ml}/\text{min}$. Methadone may be used by prescribers experienced with its use.

² Morphine toxicity: Excessive drowsiness, delirium/hallucinations, myoclonic jerks

³ Exceptions to this are those with ileostomies (where liquid stool is the norm), uncorrected pancrease deficiency (when antidiarrheal agents may be required) and mechanical bowel obstruction with colic (when stimulant laxatives should be avoided but softeners, e.g. docusate can be given)

⁴ Common side effects: constipation, nausea, vomiting, urinary retention

Abbreviations: SR (sustained release); PRN (*pro re nata/as needed*); TDS (*ter die sumendum*/three times a day); BD (*bis in die*/twice daily); RA (rapid acting); LA (long acting)

Important: The information contained herein is intended solely to assist clinicians with the management of palliative care patients. It is not intended to replace the consultation process of clinicians with their patients. Clinicians must consider current best practice when making clinical decisions with each individual patient at all times.

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Waitemata DHB medicine protocols are available on: www.waitematadhb.govt.nz/HealthProfessionals/PalliativeCareGuidelines.aspx