**BACKGROUND**

**OBJECTIVES**

To determine whether morphine should be used in the management of acute pulmonary oedema in adults.

**RESULTS**

We identified four systematic reviews of observational studies. The two most relevant, up-to-date, and highest quality reviews were used to inform evidence for critical outcomes. Morphine may increase in-hospital mortality (OR 1.78; 95% CI 1.01 to 3.13, low certainty of evidence, four observational studies, n=167,847 participants), resulting in 15 more per 1000 hospital deaths, ranging from 0 fewer to 40 more hospital deaths. Morphine may result in a large increase in invasive mechanical ventilation (OR 2.72; 95% CI 1.09 to 6.80, low certainty of evidence, four observational studies, n=167,847 participants), resulting in 45 more per 1000 ventilations, ranging from 2 more to 136 more. Adverse events and hospital length of stay was not measured across reviews or trials.

Identification of systematic reviews:
- 26 studies assessed for full-text eligibility
- 4 studies excluded
- 24 studies included
- 6 studies assessed for full-text eligibility
- 3 studies included
- 3 studies excluded
- 2 studies excluding
- 1 study included
- 2 studies ongoing
- 2 studies excluded
- 2 studies removed
- 1 study removed
- 1 study removed

**CONCLUSION**

Based on the most recent, relevant, and best available evidence, morphine use in adults with acute pulmonary oedema:

- may increase in-hospital and all-cause mortality
- may result in a large increase in the need for invasive mechanical ventilation

Recommending against the use of morphine in pulmonary oedema may improve patient outcomes.

Disinvesting in morphine for this indication may result in cost-savings, noting the possible accrued benefits of fewer patients requiring invasive ventilation and management of morphine-related side-effects.

**METHODS**

A rapid review of systematic reviews of randomised controlled trials, then randomised controlled trial was conducted searching three electronic databases (PubMed, Embase, Cochrane Library) and one clinical trial registry on February 12, 2022. We used a prespecified protocol following Cochrane rapid review methods and aligned to the National Standard Treatment Guidelines and Essential Medicines List methodology. We first considered relevant high-quality systematic reviews of randomised controlled trials, then if required randomised controlled trials to inform time-sensitive or urgent evidence requests, clinical practice, policy or standard treatment guidelines.

**What is a rapid review?**

A rapid review is a form of knowledge synthesis that accelerates the process of conducting a traditional systematic review through streamlining variety of methods to produce evidence in a resource-efficient manner. For our rapid review, we streamlined the process by first searching for high-quality, relevant and up-to-date systematic reviews of RCIs, then followed by RCIs.

Where does our rapid review fit into National Standard Treatment Guidelines and Essential Medicine List Process?

In this publication is the sole responsibility of the researchers and do not reflect the official views or position of the South African Medical Research Council or the University of Stellenbosch.