

# SHOULD BARICITINIB BE USED TO TREAT COVID-19?

Rapid Review for COVID-19

## THE KEY REVIEW QUESTION

This review aimed to determine the benefits and harms of baricitinib for treating patients hospitalised with COVID-19 on supplemental oxygen.

This review incorporates additional evidence. View [full rapid review of baricitinib](#)

## WHAT WAS INCLUDED IN REVIEW?

- This review summarised data from **three randomised placebo-controlled trials** (RCTs) pooled in a [Cochrane living review](#)
- Data was gathered from **9 782 hospitalised adult patients**, comparing baricitinib to the standard of care/placebo.

## BACKGROUND

Baricitinib is registered for the treatment of several **dermatological conditions, rheumatoid arthritis** and **COVID-19**.

Several studies of COVID-19 patients showed **evidence of clinical improvement with baricitinib**. It **reduces levels of multiple cytokines** associated with the pathophysiology of COVID-19 disease, as well as having **anti-viral activity**.

ADDITIONAL RAPID COVID-19 REVIEWS CAN BE FOUND [HERE](#)

## WHAT DID THE REVIEW FIND?



Baricitinib reduced progression to **mechanical ventilation** with/without additional organ support or death by day 28

CONFIDENCE  
HIGH



Baricitinib reduced **all-cause mortality** at Day 28

CONFIDENCE  
MEDIUM



There were **fewer adverse events** and possibly less serious adverse events

CONFIDENCE  
LOW

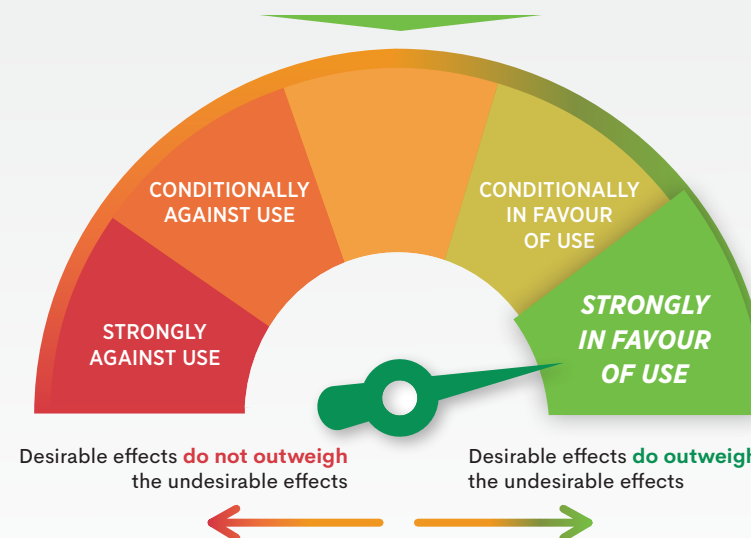


Baricitinib is **contraindicated in pregnancy**



There is **uncertainty regarding use of baricitinib in children**.

## RECOMMENDATION OF THE NATIONAL ESSENTIAL MEDICINES LIST COMMITTEE ON COVID-19 THERAPEUTICS ON USE OF BARICITINIB



## CONSIDERATIONS

- Baricitinib **reduced mortality**
- It is not associated with an increased risk of **adverse events**
- It is **cheaper** than tocilizumab
- It may be administered orally or via a nasogastric tube
- Its cost may result in **inequitable access**
- There is uncertainty regarding **supply**



## RECOMMENDATION

The trials were assessed as **high quality** and **the benefits of baricitinib outweigh the risks**.

**NEML MAC recommends the use of baricitinib in hospitalised patients with confirmed COVID-19 who require supplemental oxygen.**

REVIEW PUBLICATION DATE  
6 May 2022