## PHARMACY BULLETIN

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# The controversial 'miracle drug' for COVID-19

By Demi Ng

Ivermectin tablets are approved by the FDA for the treatment of conditions caused by parasitic worms such as intestinal *strongyloidiasis* and *onchocerciasis*. In Malaysia, it is mostly used in veterinary medicine such as treating worm infestations.

Earlier last year, some researchers using laboratory methods have shown that Ivermectin can inhibit the replication of SARS-CoV-2, the novel virus that causes COVID-19 illness. Since then, many authors relying on findings from small studies and case series have suggested the potential use of Ivermectin against COVID-19. More recently, the Coalition on Integrity of Vaccines & Drugs Against COVID-19 (CIVDAC) Malaysia, claimed that no one would die from COVID-19 if Ivermectin were given from the onset of one's illness. citing scientific proof on the utility of Ivermectin as recommended by some experts from US-based Front Line COVID-19 Critical Care (FLCCC). However, said paper was ultimately rejected on March 1 2021 after the editors determined that it contained unsubstantiated claims and violated the journal's editorial policies.

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### What are other countries doing?

| Countries           | Malaysia   | India   | Australia / NZ  | Canada   | Europe   | United States of America   |
|---------------------|--|---|---|--|--|--|
| Current<br>approach | MOH and Institute of Clinical Research (ICR) initiated a multicentre open-label randomised controlled trial to determine the efficacy of Ivermectin in preventing the progression ot COVID-19 to severe disease (stage 4-5) and mortality outcomes. The study is expected to be completed by September 2021. (Updated 5 June 2021) | Initially consider Tab Ivermectin in patients with mild cases of COVID-19 as early as 28 April 2021. However, a recent revised guideline on the comprehensive management of COVID-19 released by Directorate General of Health Services, Ministry of Health and Family Services had removed Ivermectin as treatment for mild cases of COVID-19. (Updated 27 May 2021) | Australia: There is currently insufficient evidence to support the safe and effective use of ivermectin, doxycycline and zinc (either separately, or in combination) for the prevention or treatment of COVID-19. (Updated 1 June 2021)  New Zealand: Cautioned against the use of ivermectin for COVID-19 due to lack of evidence and risk of serious side effects. (Updated April 2020) | British Columbia CDC: Ivermectin is not recommended for treatment or prophylaxis of COVID-19 outside of approved randomized-controlled trials. (Updated 6 July 2021)  Alberta Health Services: Ivermectin is not recommended for prophylaxis against COVID-19, outside of clinical trials (Updated 15 April 2021) (p. 8) | EMA: The use of ivermectin for prevention or treatment of COVID-19 cannot currently be recommended outside controlled clinical trials. (Updated 22 March 2021) | NIH: There is insufficient data for the COVID-19 Treatment Guidelines Panel (the Panel) to recommend either for or against the use of ivermectin for the treatment of COVID-19. (Updated 7 July 2021)  WHO: Recommend not to use ivermectin in patients with COVID-19 except in the context of a clinical trial. (7 July 2021)  IDSA: The guideline panel suggests against Ivermectin for the treatment of hospitalized patients with COVID-19, unless in the context of a clinical trial. (Updated 28 May 2021) |
| Dosage<br>used      | 0.4mg/kg/day for 5 days<br>for clinical trials   | Tab Ivermectin 200<br>mcg/kg OD, (for 3 to<br>5 days) *previously<br>recommended but<br>now removed   | -   | -  | -  | Dose for clinical trials is<br>0.2–0.6 mg/kg PO given as a<br>single dose or as a once daily<br>(up to 5 days)   |



#### Ivermectin & COVID-19

We cannot deny that there were notably a number of retrievable systematic reviews and meta-analyses assessing the efficacy, effectiveness and safety of ivermectin in COVID-19 patients. However, most of these studies had overlapping data and included pre-printed randomized trials and retrospective cohort studies. On top of that, we cannot turn a blind eye towards the many flaws these studies had such as unclear selection criteria and process, incomplete information and

significant methodological limitations such as small sample size and the assessment of various other concomitant medications in addition to Ivermectin. This current scarcity of high quality of evidence calls to attention the need for additional, larger and higher quality clinical trials to investigate the effectiveness and safety of Ivermectin before making any rash decisions in terms of treating COVID-19.

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- https://clinicaltrials.gov/ct2/show/NCT04920942
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