YOUR HOME ADDRESS AND POSTCODE

1st [or later date] in March 2021

[your GP's name GP practice name, address

Dear [Dr xxx]

Improving outcomes for patients with Covid-19 through the safe and cheap "WHO Essential Medicine": ivermectin

[Purpose of letter: informing GP about ivermectin and its benefits for preventing and treating covid-19 or asking for a prescription of ivermectin for prophylaxis/after testing positive for covid-19]

The British Ivermectin Recommendation Development (BIRD) group presented 20 February a rigorous meta-analysis of available clinical trials of the WHO "Essential Medicine" ivermectin, against Covid-19. Dr Tess Lawrie MB ChB PhD requested evaluation by a panel of experts, within a "DECIDE" Evidence-to-Decision (EtD) framework, the standard tool for developing clinical practice guidelines [1, 2]. The overall recommendation was:

The panel recommends ivermectin for the prevention and treatment of covid-19 to reduce morbidity and mortality associated with covid-19 infection, and to prevent covid-19 infection among those at higher risk.

So what is the evidence base for ivermectin for covid-19? Since April 2020, observational and randomised trials of ivermectin for covid-19 has accumulated. A review [3] by the Front Line Covid-19 Critical Care Alliance (FLCCC) summarised findings from 27 randomised controlled trials (RCTs) and 16 observational studies on ivermectin both for prevention and treatment of covid-19. They conclude that ivermectin "demonstrates a strong signal of therapeutic efficacy." Moreover, ivermectin is the sole therapeutic so far to have demonstrated efficacy at all stages of the very complex clinical course of the covid-19 disease, from prophylaxis through to critical care.

A more recent systematic review and meta-analysis, conducted by a UK team of experts, led by Dr. Lawrie, includes 21 RCTs and shows that ivermectin reduces the risk of death from covid-19 to about one-third of the risk of death without using this medication [4]. In the long run, of every nine patients who would otherwise die from covid-19, six can now be saved by using ivermectin. Similarly the risk of contracting covid-19 is reduced to one-seventh of the risk faced by other healthy people with similar exposure, when using ivermectin as prophylaxis. For every seven people who would catch covid-19 from an infected person, only one is likely to catch the illness, when using ivermectin.

Ivermectin is considered a very safe medicine. Many studies and systematic reviews have reported only infrequent (< 2-5% of treated patients) and mild to moderate adverse effects associated with ivermectin (e.g. dizziness, tremor, tingling and sleepiness; fever, fatigue and headache; nausea, abdominal pain and diarrhea; transient tachycardia and orthostatic hypotension; pruritus and rash) [5, 6]. More severe neurological complications (e.g., seizures, confusion, encephalopathy) are possible, but rare. It is noteworthy that ivermectin is routinely used throughout the world to treat scabies in elderly people without major

-2- April 1, 2021

safety issues. Several national pharmacovigilance networks and international organizations released information or opinions ascertaining ivermectin safety in human subjects treated with parasitic diseases. Likewise, no severe adverse reactions have seemingly so far been described in relation to off-label studies or clinical trials of ivermectin as a potential prophylactic or curative treatment of COVID-19.

Oral ivermectin is listed in the British National Formulary but it is not licensed and is infrequently prescribed in the UK. When it is prescribed the pharmacy that dispenses it has to obtain it from a specialist supplier. As a GP, you may prescribe it off-licence (off-label), at NHS expense if you believe it is appropriate for the patient. Were you to prescribe ivermectin for one of your patients, please note the following:

- 1. it would be wise to discuss it with local pharmacies first to ensure that they obtain a supply of ivermectin and patients do not end up going from one pharmacy to another.
- 2. It might be useful to look at the GMC guidance https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/prescribing-and-managing-medicines-and-devices/prescribing-unlicensed-medicines

Yours sincerely

[Your name] (please add credentials especially if medically or scientifically qualified) Enc:

- [1] British Ivermectin Recommendation Development (BIRD) panel (2021). Recommendation on the Use of Ivermectin for Covid-19 Executive Summary. https://tinyurl.com/xcbhh6d8
- [2] British Ivermectin Recommendation Development (BIRD) panel (2021). The BIRD Recommendation on the Use of Ivermectin for Covid-19. Full report. https://tinyurl.com/u27ea3y
- [3] Kory, P. et al. (2021). Review of the Emerging Evidence Demonstrating the Efficacy of Ivermectin in the Prophylaxis and Treatment of COVID-19. OSF preprint: DOI: https://covid19criticalcare.com/wp-content/uploads/2020/11/FLCCC-Ivermectin-in-the-prophylaxis-and-treatment-of-COVID-19.pdf (To appear in American Journal of Therapeutics, May-June 2021).
- [4] Bryant, A., Lawrie, T.A., Dowswell, T., Fordham, E.J., Mitchell, S., Hill, S.R. & Tham, T.C. (2021). Ivermectin for prevention and treatment of COVID-19 infection: a systematic review and meta-analysis. OSF preprint, https://osf.io/k37ft/ DOI: 10.31219/osf.io/k37ft
- [5] Guzzo, C., et al. (2002). Safety, Tolerability, and Pharmacokinetics of Escalating High Doses of Ivermectin in Healthy Adult Subjects. *Journal of Clinical Pharmacology*, **42**, 1122-1133.
- [6] Navarro, M. et al. (2020). Safety of high-dose ivermectin: a systematic review and meta-analysis. *Journal of Antimicrobial Chemotherapy,* DOI: 10.1093/jac/dkz524