Hello,

I thought I would share my thoughts of what social media have been talking about re. Covid 19 and meds. It can be confusing when experts disagree and there is conflicting information. I hope this will help us inform patients with the latest guidance from NHSE and world reputable sources.

**Do NSAIDs worsen Covid-19 infections?**

<https://www.theguardian.com/world/2020/mar/14/anti-inflammatory-drugs-may-aggravate-coronavirus-infection>

Health officials point out that anti-inflammatory drugs are known to be a risk for those with infectious illnesses because they tend to diminish the response of the body’s immune system.

<https://www.theguardian.com/world/2020/mar/16/health-experts-criticise-nhs-advice-to-take-ibuprofen-for-covid-19>

A trial by Little and his colleagues, [published in the BMJ](https://www.bmj.com/content/347/bmj.f6041), found patients with respiratory infections such as coughs, colds and sore throats who were prescribed ibuprofen rather than paracetamol by their GP were more likely to subsequently suffer severe illness or complications. Several other studies have linked anti-inflammatory drugs to [worsened pneumonia](https://www.ncbi.nlm.nih.gov/pubmed/28005149).

Little said this could be because inflammation is part of the body’s natural response to infection. “If you’re suppressing that natural response, you’re likely inhibiting your body’s ability to fight off infection,” he said.

<https://www.bmj.com/content/368/bmj.m406/rr-9>

Based on the fact that the COVID-19 virus is single-stranded RNA virus and Naproxen has an antiviral activity via inhibiting nucleoprotein (NP) binding to RNA in the replication process of RNA-viruses like influenza A/B, the use of Naproxen as a probable agent for control of widespread novel coronavirus infection may be assumed.

<https://www.hse.ie/eng/services/news/media/pressrel/advice-about-anti-inflammatory-medication-and-covid-19.html>

The HSE is today, (Monday 16th March 2020), advising anyone with Covid-19 to continue to take any medication you were already taking, unless you are told not to by a healthcare professional.  This includes anti-inflammatories (NSAID) such as ibuprofen, naproxen or diclofenac.

<https://www.cas.mhra.gov.uk/ViewandAcknowledgment/ViewAlert.aspx?AlertID=103001>

There appears to be no evidence that NSAIDs increase the chance of acquiring Covid-19. In view of the current lack of clarity the Committee of Human Medicines (an advisory body of MHRA) and NICE have been asked to review the evidence. It is therefore suggested that, in the interim, for patients, who have confirmed Covid-19 or believe they have Covid-19, that they use paracetamol in preference to NSAIDs

**My position: it could be a good opportunity to review ongoing need/efficacy and stop NSAIDs if no longer warranted (CVD, CKD, SE…)**

* **If already on NSAIDs, and patient feels it’s needed for pain relief, continue and stop if develops infection, temperature. Favour paracetamol then.**
* **If not on NSAIDs, prefer paracetamol instead, especially to lower temperature or current infection**

**ACEI/ARB and Covid-19 infections**

[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30116-8/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2820%2930116-8/fulltext)

We therefore hypothesise that diabetes and hypertension treatment with ACE2-stimulating drugs increases the risk of developing severe and fatal COVID-19.

[https://www.escardio.org/Councils/Council-on-Hypertension-(CHT)/News/position-statement-of-the-esc-council-on-hypertension-on-ace-inhibitors-and-ang](https://www.escardio.org/Councils/Council-on-Hypertension-%28CHT%29/News/position-statement-of-the-esc-council-on-hypertension-on-ace-inhibitors-and-ang)

The [Council on Hypertension of the European Society of Cardiology](https://www.escardio.org/Councils/Council-on-Hypertension-%28CHT%29) wish to highlight **the lack of any evidence** supporting harmful effect of ACE-I and ARB in the context of the pandemic COVID-19 outbreak.

<http://www.nephjc.com/news/covidace2>

* This [study in EP Europace (2017)](https://academic.oup.com/europace/article/19/8/1280/2194467) (in ***humans***, not mice) **did not find any association** (increase of decrease) of circulating ACE2 levels with the use of ACEi or ARBs. from [Dr. Louise Burrell](http://www.nephjc.com/news/%40LouiseBurrell3).
* Another study in PLOS one ([Ramchand et al 2018](https://pubmed.ncbi.nlm.nih.gov/29897923-elevated-plasma-angiotensin-converting-enzyme-2-activity-is-an-independent-predictor-of-major-adverse-cardiac-events-in-patients-with-obstructive-coronary-artery-disease/)) evaluated 79 patients with with coronary heart disease and measured plasma ACE2 levels. They **did not find any correlation** between RAS blockers or age with plasma ACE2 levels.

**My position: until we get official guidance, continue with current ACEI/ARB and remind patient of the risks associated with raised BP (MI, stroke, HF, kidney injury…)**

**Patients with asthma who want to order SABA or ICS but had not used/ordered any of them for the last few years: good opportunity to review diagnosis**

I will issue their SABA reliever but ONLY ONE and advise them that if they start using it more then 2-3 times a week, then ring back for review and be considered for an addition of ICS. If issuing ICS, I will issue Peak Flow and ask them to do peak flow diary for 2 weeks and bring it in at next asthma review.

Ask them to watch following videos for optimum inhaler technique:

* How to use pMDI:

 <https://www.abrahamthepharmacist.com/post/how-to-use-an-inhaler-how-to-use-a-ventolin-inhaler-properly-correctly-asthma-inhaler-technique>

* How to use pMDI with Aerochamber: <https://www.abrahamthepharmacist.com/post/how-to-use-a-spacer-with-inhaler-how-to-use-spacer-device-how-to-use-aerochamber-with-ventolin>
* Personalised Asthma Action Plan:

<https://www.asthma.org.uk/globalassets/health-advice/resources/adults/adult-asthma-action-plan.pdf>

**Patients wanting more than 2 months’ worth of prescription: No can do!**

Stock piling will disrupt supply chain and worsen stock shortages.

We could promote batch prescription, aka eRD (electronic Repeat Dispensing) for REGULAR items. Not suitable for PRN or meds that are likely to change in dose. Please ask Pharmacy Team to arrange unless you know what you are doing!

If you want to know more about eRD:

* <https://wessexahsn.org.uk/img/projects/Electronic%20Dispensing%20Handbook_Digital_WEB_S.pdf>
* <https://www.youtube.com/watch?v=zzaNeAaelAo&feature=youtu.be>
* <https://www.youtube.com/watch?v=zzaNeAaelAo&feature=youtu.be>