WACARDIOLOGY

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# COVID19 AND CARDIOVASCULAR DISEASE

## Update 2 02/05/2020

Well, time goes fast and things continue to look good for WA. I think the theme of this newsletter will be "make sure your patients look after their non-Covid health concerns". There is a potential world of pain looming that could dwarf the current Covid issues.

### 1. My patient has chest pain but refuses to get it investigated/go to ED

As mentioned in the last newsletter, patients are delaying hospital presentation due to fears over Covid-19. This has resulted in less STEMI presentations overseas. We don't have local data yet but are working on it. This is likely to have flow on consequences with increased severity of heart failure post infarction, as well as conditions we rarely see now such as VSDs. Again, data from Lombardy suggests out-of-hospital-cardiac-arrest (OOHCA) rates are up by 58%. This resulted in a 14.9% increase in mortality before getting to hospital compared to the prior year. Sadly, bystander CPR was also reduced by 15.6% compared to the year prior, possibly due to infection risk fears [1].

With the current low level of community Covid-19 in WA, the risk to patients attending ED is low. The risk of non-attendance for cardiovascular disease (and other non-cardiac conditions) is potentially extremely high and patients should be encouraged to seek care as they normally would either via ED or referral to a Cardiologist as appropriate. Most Cardiologists are also providing telehealth services for at-risk patients which are bulk billed with Covid codes.

Many of our patients may also be facing economic hardship and while we have good supports in Australia such as the MBS, PBS, Medicare and social security, patients may place purchasing medications down their list of priorities. I think there will be more discussion around the impact of our interventions to halt SARS-CoV-2, particularly on the more vulnerable populations moving forward.

The government has given the green light to recommence elective activity in hospitals with a slow ramp up. Current active Covid-19 cases in WA number 23, with 8 hospitalised, 3 ICU cases and no new cases for 3 days.

### 2. Any updates on ACE-I and ARB and Covid-19?

There is good news that ACE-I and ARBs do not appear to increase the risk of contracting or result in more severe Covid-19 infections.

A study of 5894 Covid-19 patients demonstrated no significant difference between any antihypertensive agent (ACE-I, ARB, Beta blocker, Calcium channel blocker, or Thiazide diuretics) used and the risk of severe illness/mortality[2].

6272 patients from Lombardy Italy with SARS-CoV-2 infection were matched with 30,759 control patients in regional database for co-morbidities. ACE-I/ARB use was not associated with increased severe infection/mortality; OR 0.83 (0.63 to 1.1) for ACE-I, and OR 0.91 (CI 0.69 to 1.21) for ARB[3].

In a study of 8910 patients with Covid-19 from 169 hospitals, mortality odd ratios were: age>65 1.93(CI 1.60 to 2.41), coronary artery disease OR 2.7 (CI 2.08 to 3.51); Heart Failure OR 2.48 (CI 1.62 to 3.79); and Current smoking 1.79 (CI 1.29 to 2.47). Factors that improved survival to discharge were Female Gender OR 0.79 (CI 0.65 to 0.95), Statin use OR 0.35 (0.24 to 0.52) and interestingly ACE -I use OR 0.33 (0.2 to 0.54)!![4].

Whilst these studies are small and observational and are making multiple observations with the attendant risk of a Type 1 error, they do provide some reassurance that we do not need to alter our antihypertensive regimes.

**3. What therapies have been developed and do we have a vaccine yet?**

The therapeutic news of the week is about Remdesivir, a nucleotide analogue, which in the Adaptive Covid-19 Trial (ACTT) (n= 1063) demonstrated median recovery in treated patients of 11 days vs 15 days in the placebo group (P<0.001). This potentially frees up hospital beds. There was a non-significant trend to reduced mortality of 8% vs 11.6% (p 0.056)[5]. Trial results are not yet published, however.

A smaller Chinese trail of Remdesivir (n= 237) failed to demonstrate any difference in recovery time or mortality[6]. And the SIMPLE trial (n=397) demonstrated no difference in a 5-day vs a 10-day treatment regime although there was no placebo group in this trial.

<u>It is likely that Remdesivir in the absence of other therapies may be adopted as standard of care; however, this should not be at the expense of trialling other agents that may also offer benefit to patients.</u>

There remains no evidence of benefit for Hydroxychloroquine as a Covid-19 therapeutic.

There are no vaccines available and these are many months, if not years away.

**That is it for this week. Any questions or suggestions please do feel free to make contact.**

*Chris*

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