

COVID-19 Care in the Community - Case Management in Pharmacy Operational Guide

March 2022

Medication Management Consult: Heart Failure

Eligibility Criteria

Clients who are in COVID-19 mandatory isolation due to being COVID -19 *positive* and have a known pre-existing diagnosis of heart failure

Referrals for this service may come from:

- Prescriber via email or phone or noted on prescription.
- Welfare or other agencies such as Tihei Mauri Ora and the local hubs who provide support.
- Health Hawke's Bay.
- General Practice.
- DHB services.

Background

Patients with heart failure are at increased risk of developing a severe infection and complications from COVID-19. The virus may act directly on cardiac muscle, and can cause myocarditis, thromboembolic disease, or even myocardial infarction. Decompensated heart failure is also a possibility as the cardiac workload will be increased.

Heart failure patients are at increased risk of thrombosis from COVID-19. Some patients may already be taking antiplatelets or anticoagulants to prevent thromboembolism and they should continue to do so unless otherwise directed by their healthcare team.

Stopping any medications can be dangerous and may worsen their condition. It is important that patients know which medicines to stop when and to emphasize to patients when to seek medical attention. Community pharmacists are well placed to be able to consult the patient on this. The resources included can be printed off if needed and provide good overall advice.

Specific medication advice

Angiotensin-converting enzyme inhibitors (ACEIs)/ Angiotensin-II receptor blockers (ARBs):

Patient may query if they should be stopping these based on media reports from early in the pandemic. International guidelines state that no link has been found between these medicines and increased severity of COVID-19 infections. Increased Renin Angiotensin Aldosterone (RAAS) activity during COVID-19 infection increases the risk of decompensated heart failure, cardiology advice is to continue ACE-I/ARB and Entresto with mild to moderate COVID infection. If the patient becomes dehydrated, call the GP or Heart Function nurses (call 878 8109 and ask for Villa 2, then Heart Function Nurse) for advice on management.

Non-steroidal anti-inflammatory drugs (NSAIDs)

Avoid these due to risk of Acute Kidney Injury (AKI) (risk is increased in dehydration) and interactions. Use paracetamol instead. NSAIDs can also increase Myocardial Infarction risk in

patients with acute viral illness, even with short term use. If NSAIDs are taken regularly to manage a long term condition, clarification may be needed from the GP.

Furosemide and other diuretics:

Does the patient have a Heart Failure Action Plan? If so, check if the plan is based on weight or symptoms? If weight based, monitor weight daily - the dose of loop diuretics can be changed:

- Increase loop diuretic if weight increases by 1.5 to 2kg over 2-3 days.
- Decrease or stop loop diuretic if weight decreases by 1.5 to 2 kg over 2-3 days.
- If the patient is becoming lightheaded on standing, this may be a sign of dehydration, call the GP or Heart Function nurses (call 878 8109 and ask for Villa 2, then Heart Function Nurse) for advice on management.
- Stop spironolactone if the patient has diarrhoea and vomiting or has a fever >38°C or is not drinking normally.

Signs and symptoms to discuss with your patient

If this happens...	...then do this
Headache, muscle aches/pains, fever >38°C	Use paracetamol NOT NSAIDs
Mild dry cough, worsening fatigue, shortness of breath or reduction in Oxygen saturation if using pulse oximeter	<p>If oedema, worsening shortness of breath or other signs of decompensated cardiac failure or respiratory co-morbidities, patient is to call GP or Heart Function Nurse. Alternatively Pharmacist to send an ISBAR to GP.</p> <p>Oxygen saturation ≤93% or decrease of ≥3% from baseline, contact GP immediately.</p> <p>If purely a dry cough then a teaspoon of honey may help relieve symptoms.</p>
Oedema/fluid retention – feet/ankles, fingers, abdomen	<p>If oedema has increased, or weight increasing >1.5 to 2kg over 2 days and COVID symptoms are mild, refer to HF Action Plan if they have one.</p> <p>Otherwise patient is to call GP. Alternatively Pharmacist to send an ISBAR to GP.</p>
Vomiting, diarrhoea, fever >38°C and sweating, reduced oral intake of fluids and nutrition	<p>Advise the patient to increase fluid intake and give rehydration fluids where appropriate.</p> <p>See 'How to guide' SADMANS-DOG: Stop metformin Stop NSAIDs Stop empagliflozin – See 'How to guide' Diabetes for further guidance Medicines can be restarted 48 hours after feeling better and eating and drinking normally.</p> <p>If patients are on anticoagulants: discuss signs and symptoms of bleeding and to contact GP immediately if concerned. Alternatively, pharmacist to send ISBAR.</p> <p>Discuss if a patient is on a fluid restriction – if so, contact the GP using ISBAR to see advice on reducing or stopping restriction until the patient is well.</p> <p>If the patient has an HF Action Plan, monitor weight daily. Reduce or stop loop diuretic and stop spironolactone if weight has reduced by 1.5 to 2kg over 2 to 3 days. Alternatively contact GP or Heart Function nurse for advice.</p>

	<p>NB: Ensure the patient knows to increase/restart diuretics 48 hours after feeling better and eating and drinking normally.</p> <p>Oral rehydration solution may be used if needed but at recommended dose. Caution if patient is on salt-restricted diet.</p> <p>If the patient becomes lightheaded/dizzy on standing or bending, this may be a sign of dehydration, they should contact the GP. Alternatively Pharmacist to send an ISBAR to GP</p>
<p>Chest pain, irregular or fast heart rate; progressive shortness of breath, increased (or decreased) respiratory rate, severe cough, dizziness or fainting, pain/swelling/coolness in limb</p>	<p>Call GP immediately, If not available call 111 for an ambulance.</p>

Tools available:

- **Patient fact sheet: COVID-19 Seeking medical help – when and how**
- **Heart Foundation NZ - Covid 19 and heart disease**
- **Heart Failure Association**
- **ISBAR communication framework between health care workers**
- **Heart Helpline: 0800 863 375 Monday to Friday 9.00am to 5.00pm**

References:

- BMJ Best Practice: How to manage a patient with COVID-19 and heart failure. Jan 20 2021. Accessed at <https://bestpractice.bmj.com/info/how-to-manage-a-patient-with-covid-19-and-heart-failure/>
- Medical Journal of Australia: Cardiovascular disease and COVID-19: Australian and New Zealand consensus statement. Med J Aust 2020; 213 (4): 182-187.
- Centre for Evidence Based Medicine: NSAIDs in in Acute Respiratory Infection <https://www.cebm.net/covid-19/nsaids-in-acute-respiratory-infection/>
- Canadian Cardiovascular Society: Is it COVID-19 or Is it Heart Failure? Management of Ambulatory Heart Failure Patients. <https://hfam.ca/wp-content/uploads/2022/01/COVID19-or-Heart-Failure-CCS.pdf>

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