General Principles of Heart Failure Management During COVID-19 (updated March 2021)

This guidance has been developed by cardiology specialists in primary and secondary care to support primary care practitioners in their management of heart failure patients during the COVID-19 pandemic. Borough teams in South East London may differ in their local implementation of this guidance, considering current remote management flexibilities and monitoring abilities.

Clinically extremely vulnerable or high-risk heart failure patients should be advised to shield: Patients with a hospital admission for HF in the previous 12 months, a new HF diagnosis within the last 3 months, and HF patients with significant co-morbidities: https://www.nhs.uk/conditions/coronavirus-covid-19/people-at-higher-risk-from-coronavirus/whos-at-higher-risk-from-coronavirus/

Support for patients and carers: https://pumpingmarvellous.org/heart-failure-advice-leaflet-for-patients-during-covid-19/

PRINCIPLES:

A) Patients under a HF team will continue to be reviewed by their team. Patients and practitioners may contact the appropriate HF team (see contact details at the end of this document)

B) Patients recently discharged from hospital following an admission for acute HF will be reviewed by HF teams within 2 weeks of discharge

C) Patients with a suspected new diagnosis of heart failure are being seen as per usual practice (NTproBNP of 400 to 2000 ng/L within 6 weeks; NTproBNP above 2000ng/L within two weeks)

D) For established HF patients: When patients are reviewed clinically, medications should be optimised when clinically appropriate

E) Patients with symptoms of fluid overload should be offloaded (*see management below*) **and be referred to the HF team for review**

F) All patients with heart failure should be offered a COVID-19 vaccination at the earliest opportunity.

Reference: British Society for Heart Failure guidance for the 'planned recovery' stage of the COVID-19 pandemic: The-Recovery-Plan-Final.pdf (bsh.org.uk)

MANAGEMENT OF HEART FAILURE DURING COVID-19:

1. Acute decompensation of chronic heart failure

- **Signs and symptoms of fluid overload**
  - Increasing breathlessness, orthopnoea and/or nocturnal dyspnoea
  - Increasing peripheral or abdominal oedema, raised JVP and/or rapid weight gain
  - Weight ↑ >1.5kg above dry weight and rapid weight gain over 2 to 3 days
- **Managing fluid overload/ breathlessness**
  - Up-titrate loop diuretics to provide symptomatic relief**.** Increase furosemide by 40-80mg daily or bumetanide by 1-2mg daily. If requiring more than furosemide 160mg daily and bumetanide 5mg daily, refer to the HF team for review; aim for 0.5-1kg weight loss per day (*see SEL CHF guidance*).
  - Monitor blood pressure (BP) and daily bodyweights - patients may record these if at home. Review within 3 days and increase or reduce dose as clinically appropriate.
  - Check U&Es within 7 days when increasing diuretic dosing and at regular intervals for prolonged high doses of diuretic.

WHEN TO SEEK ADVICE OR REFER HF PATIENTS TO THE COMMUNITY TEAM? (*contact details on page 3*)

- **Management of fluid overload:**
  - Significant on-going symptoms despite increased oral loop diuretic doses. In those unresponsive to increasing doses of loop diuretics, a thiazide diuretic such as bendroflumethiazide or metolazone (unlicensed) may be added, and this will be prescribed and reviewed by the HF team
- **Symptomatic hypotension (with fluid overload)**
- **Patients non-adherent to treatment**

WHEN WOULD AN URGENT ADMISSION/ REVIEW BE REQUIRED?

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South East London Integrated Medicines Optimisation Committee. A partnership between NHS organisations in South East London: South East London Clinical Commissioning Group (covering the boroughs of Bexley, Bromley, Greenwich, Lambeth, Lewisham and Southwark) and GSTFT/KCH /SLaM/ Oxleas NHS Foundation Trusts and Lewisham & Greenwich NHS Trust

- **If evidence of decompensation** non-responsive to above management strategies (warning signs include reduced urine output, fatigue and confusion)
- **Symptoms of new onset cardiac sounding chest pain, or syncope:** Contact local secondary care provider for advice via local arrangements (eg Consultant Connect) to discuss hospital admission

2. Managing Stable Chronic Heart Failure Patients

- **Continue standard prognostic medication for heart failure** where prescribed (ACEI / ARB, beta-blockers and MRAs). ACEI and ARB medications do not adversely affect COVID-19 outcomes and therefore these should not be stopped unless side effects, U&Es or blood pressure dictates this.
  MHRA: https://www.gov.uk/government/news/coronavirus-covid-19-and-high-blood-pressure-medication
- **To manage fluid overload in known HF patients, diuretics should be up-titrated to control symptoms:** Monitor blood pressure (BP) and daily bodyweight - patients may record these:
  https://www.bhf.org.uk/informationsupport/heart-matters-magazine/medical/tests/blood-pressure-measuring-at-home
- **Encourage patients to remain active at home:** Examples of light activity can be found at https://www.nhs.uk/live-well/exercise/physical-activity-guidelines-older-adults/

3. Other Issues

- **Managing hypertension in HF patients**
  Where possible optimise prognostic heart failure medications (*ACEI/ARB, BB, MRA such as spironolactone*) before adding additional antihypertensives:
  - Consider spironolactone 25mg daily if baseline potassium ≤5mmol/L, serum creatinine >200micromol/L or eGFR <30ml/min, and if renal function and potassium (U&Es) can be checked within 2 weeks
  - If BP remains > 140/90mmHg; add amlodipine 5mg daily and increase to 10mg daily after 2 weeks if required
  - If BP still > 140/90mmHg; consider hydralazine 25mg three times a day (TDS) and ISMN MR 30mg od in HFrEF patients with renal impairment and/or Afro-Caribbean patients
  - Contact HF team for advice.
- **Managing hypotension (symptomatic low BP, with systolic BP<100mmHg)**
  - Assess volume status (weight trend, symptoms of breathlessness/fluid overload/dehydration)
  - Ensure a suitable fluid intake. Counsel patient to avoid abrupt postural changes.
- **Symptomatic hypotension in the setting of dehydration**
  - Dehydration symptoms include weight ↓ >1.5kg below dry weight over 2 to 3 days, symptoms of thirst, dizziness, or feeling washed out.
  - Withhold one to three diuretic doses and seek advice (maintenance doses may then be reduced by one increment) [*see SEL CHF guidance diuretics flow chart*].
- **Symptomatic hypotension in the setting of fluid overload**
  - Review or stop antihypertensives. Contact HF team for advice.
- **Acute Kidney Injury**
  https://www.nice.org.uk/guidance/ng148/resources/acute-kidney-injury-prevention-detection-and-management-pdf-66141786535621
  COVID-19 guideline: acute kidney injury, May 2020: https://www.nice.org.uk/guidance/ng175/resources/visual-summary-pdf-8719215805
  AKI toolkit: https://www.rcgp.org.uk/aki
  - Please note: If withholding ACEI/ARB and/or MRA for AKI, ensure re-initiation and uptitration of ACEI/ARB and MRA in HF patients when renal function improves.
  - Consult HF team for advice.

4. End of life care: See SEL COVID Palliative Care Guidance (http://gp.selondonccg.nhs.uk/#palliative)
Other end of life considerations for HF patients include:

- **Device deactivation:** See " How to deactivate ICDs":
https://gp.selondonccg.nhs.uk/wp-content/uploads/2020/04/2019.02.15-clinical-guidelines-ICD-deactivations.pdf
- **Symptom management:** Suitability for subcutaneous (SC) diuretics discussed with palliative care team
- **Seek advice from Palliative care team:** Local contact details **http://gp.selondonccg.nhs.uk/#palliative**

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- **Communicate advanced care plans** on co-ordinate my care (CMC)

HEART FAILURE TEAM CONTACTS:

- **Community HF Nursing Team in Lambeth & Southwark:** **https://www.guysandstthomas.nhs.uk/our-services/community-heart-failure/overview.aspx** or for referrals email: gst-tr.KHPcommunityHF@nhs.net or Telephone 020 3049 4652

- **GSTT: Referrals for Medical Review or Advice about individual patients:** Please use the current advice and guidance channels including eRS Advice and guidance for written communication or Consultant Connect to speak to a senior clinician immediately.
  ERS Referrals: Please contact us through advice and guidance before making a referral. We will contact urgent patients but are not currently booking routine patients. Please consider this before referral as our capacity to see new patients is limited, and please warn patients they may not be seen immediately.
  Consultant Connect: For Urgent Cardiology advice via the practice specific telephone number.
  For advice regarding a specific patient under a specific Consultant: Please email your enquiry stating the name of the Consultant you wish to contact to: **gst-tr.cardiology@nhs.net**

- **KCH Denmark Hill: Referrals for Medical Review or Advice about individual patients:** Please use the current advice and guidance channels including eRS Advice and Guidance for written communication or Consultant Connect.
  ERS Referrals: We are continuing to offer all new suspected HF patients an echocardiogram and face to face review according to the NICE 2 and 6 week pathway for patients with an NTproBNP >400 ng/L.
  Consultant Connect: For Urgent Cardiology advice via the practice specific telephone number.
  For advice regarding a specific patient under a specific Consultant: Please email your enquiry stating the name of the Consultant you wish to contact to: **kch-tr.hfu@nhs.net**
  Kings College HF service contact details: kch-tr.hfu@nhs.net and for HF nurses: kch-tr.kingsheartfailurenurse@nhs.net Telephone: 0203 299 4860 Referrals – ERS Cardiology – Heart Failure Referral Assessment Service @ Denmark Hill King's College Hospital

- **Princess Royal Hospital, KCH**: contact is kch-tr.PRUHheartfailurenurses@nhs.net and then calls/emails are triaged to either Doctor or nurse. Use Consultant Connect for advice and guidance. Referrals via ERS.

- **Bromley HF team:** Integrated HF team Bromley Telephone: 07971 484508
  Email: kch-tr.br-bromleyintegratedheartfailurenurses@nhs.net

- **Bexley HF team:** Bexley patients with raised NTproBNP of 400-2000ng/L should be referred to PML Bexley community non- invasive diagnostic service for echocardiogram and to the Bexley Cardiologist.
  For community HF referrals contact the Oxleas team: oxl-tr.Cardiac@nhs.net

- **Greenwich HF team:** Greenwich patients with raised NTproBNP of 400 to 2000 ng/L should be referred to the Local Trust for Echocardiogram. For acute contact QEH Cardiology: Tel. 0208 836 4350 Monday to Friday between the hours of 9-5pm. For community contact Greenwich Oxleas HF team: Tel. 020 8319 7060. Email: oxl-tr.Cardiac@nhs.net**.** Referral form available at: http://oxleas.nhs.uk/services/service/support-for-cardiac-conditions/referral/?p=/gps-referrers/gp-community-health-services/gp-chs-greenwich/.
  Cardiac team email for referrals is: oxl-tr.Cardiac@nhs.net

- **Lewisham HF team:** Telephone (Mon to Friday, 9 am to 5 pm): 020 3049 3473 or email: lh.commuhfreferrals@nhs.net