

Speciality guides for patient management during the coronavirus pandemic

Clinical guide for the management of cardiology patients during the coronavirus pandemic

20 March 2020 Version 1

“...and there are no more surgeons, urologists, orthopaedists, we are only doctors who suddenly become part of a single team to face this tsunami that has overwhelmed us...”

Dr Daniele Macchine, Bergamo, Italy. 9 March 2020

As doctors we all have general responsibilities in relation to coronavirus and for these we should seek and act on national and local guidelines. We also have a specific responsibility to ensure that essential cardiology care continues with the minimum burden on the NHS. We must engage with management and clinical teams planning the local response in our hospitals. We may also need to work outside our specific areas of training and expertise and the General Medical Council (GMC) has already indicated its support for this in the exceptional circumstances we may face: www.gmc-uk.org/news/news-archive/how-we-will-continue-to-regulate-in-light-of-novel-coronavirus

Elective cardiology services will be severely curtailed by the pandemic and careful planning is required to minimise the impact on patients requiring urgent or emergency care while protecting resources for the response to coronavirus. There is a possibility that the ability to assess and treat urgent or emergency cardiology patients may be compromised by the inability to transfer patients between hospitals, lack of beds or staff sickness.

Leadership

- **A consultant must be designated as 'lead consultant'**. This duty can be for one day, a few days or even five days in small units. This is an essential role during crisis management. It cannot be performed by the consultant 'on-call' or the consultant in clinic or the consultant in the cath lab. They must be free of clinical duties and the role involves co-ordination of the whole service from emergency department (ED) through to cath lab scheduling and liaison with other specialties and managers.
- **A leadership team should support the lead and include relevant members of the MDT.**
- Establish a daily sitrep and dashboard with critical data to share across the workforce. This should include patient flows, workforce issue, stock levels and other key messages (eg state of coronavirus response, personal protective equipment (PPE) requirements).
- It can be very stressful during a crisis. Support each other and share the workload. Do not expect the clinical director to do all the co-ordination!
- Identify pathways that require actions outside normal provider pathways, including contingency plans for supply chain issues.

Categories of cardiology patients

- **Obligatory inpatients:** Will continue to require admission and ongoing management, eg myocardial infarction, class IV heart failure, arrhythmias (such as uncontrolled AF or VT), endocarditis. Pathways must be expedited to allow rapid treatment and discharge.
- **Elective inpatients/day case activity:** All elective admissions should be deferred unless absolutely necessary.
- **Outpatients:** Consideration should be given to the urgency of the appointment, the requirement for diagnostics and the need for face-to-face contact. Rapid access clinics can prevent admission or facilitate early discharge. Where possible, appointments should be conducted remotely and non-urgent appointments deferred, particularly those requiring diagnostics for surveillance.

Specific areas of cardiology

- **Bradycardia pacing:**
 - urgent pacemaker implants for symptomatic AV block should continue
 - implants for sinus node disease can reasonably be deferred
 - consider remote monitoring of devices.

- **ICD implants:**
 - urgent ICD implants for secondary prevention following cardiac arrest or syncopal VT should continue
 - primary prevention implants should be risk assessed on a case-by-case basis but may be deferred, accepting that there is a finite risk associated with delay
 - all devices should have remote monitoring.
- **CRT implants:**
 - elective CRT-P implants or upgrades can reasonably be deferred
 - CRT for patients with unstable heart failure should be considered on a case-by-case basis
 - CRT-D implants for secondary prevention following cardiac arrest or syncopal VT should continue
 - CRT-D implants for primary prevention should be risk assessed on a case-by-case basis but may be deferred, accepting that there is a finite risk associated with delay
 - all devices should have remote monitoring.
- **CIED generator replacement:**
 - most elective generator replacements can be deferred
 - urgent replacements, eg for EoL with no underlying rhythm, should continue.
- **Ablation:**
 - for non-malignant arrhythmias can be deferred
 - for rapidly conducted pre-excited AF in WPW patients, patients with heart failure secondary to tachycardia, and VT ablation for patients who are not controllable with medication can be considered.
- **Heart failure:** Patients identified in the community with NT-pBNP >2000 should be considered for rapid access outpatient review as early intervention can prevent the need for admission.
- **PCI:** elective PCI should be deferred.
- **NSTEMI:** Patients need to be assessed on a case-by-case basis and, where possible, current NSTEMI pathways followed. If this is not possible due to ITU capacity or other issues, then PCI should be used in place of surgery in multi-vessel disease where feasible. Lower-risk patients may be offered optimal medical treatment.

- **Primary PCI (PPCI):**
 - PPCI should be delivered as the default therapy for patients with pain of <12 hours and ST elevation
 - subject to (a) formal network agreement and (b) appropriately accredited PCI operators and catheter lab staff, PCI centres that do not normally offer primary PPCI for STEMI patients may undertake this procedure during their normal working hours
 - thrombolysis is not a preferred option but may be considered on a case-by-case basis for unstable patients with coronavirus pneumonia who develop a STEMI. Patients with significant co-morbidity to be discussed on a case-by-case basis
 - LBBB to be managed in local hospital unless patient has ongoing intractable pain
 - stable patients should be managed in level 1 beds and their inpatient stays should be minimised to 36–48 hours. Inpatient echocardiography can be waived for stable patients. Inpatient assessment for rehabilitation can be waived.
- **Out-of-hospital cardiac arrest:** Only transfer patients with clear ST elevation and no significant co-morbidities or other features suggesting a poor outcome to a primary PCI centre.
- **Valve disease:**
 - elective valve interventions should be deferred
 - patients in heart failure or at high risk of admission in heart failure should be considered on a case-by-case basis and current pathways followed where possible
 - if this is not possible due to a shortage of ITU beds or other constraints, TAVI can be considered as an alternative to surgery in aortic stenosis.

Network arrangements

- All discussions and planning for the provision of specialist cardiac services need to be on a network basis to ensure co-ordination and appropriate patient flow.

Other considerations

- We should avoid unproductive attendances at hospital.
- Senior decision-making at the first point of contact should reduce or even prevent the need for further attendances.

- Clinicians may need to work in unfamiliar environments or outside their subspecialist areas. They will need to be supported.
- The possibility of a seven-day service may need to be considered.
- Using virtual clinic (VC) will not reduce ED workload. Hospitals using this system may need to switch during the crisis to the system outlined above.
- The patient information used in VC will be very effective in reducing follow-up visits.
- Consider postponing long-term follow-up patients until the crisis has passed.
- CT scanning may be limited as it is the investigation of choice for coronavirus pneumonitis.