**Operational workflow for inpatient pathway and cardiac cath labs**

The aim of the inpatient pathway is to provide the highest and safest standard of care with the minimum risk to patient and staff of nosocomial transmission of COVID-19 infection. The purpose of the pathway is to outline the means by which this will be achieved.

Inpatients intended for interventional procedures in the cardiac cath lab (CCL) will be cohorted into be three different inpatient groups:

1. **Red pathway**: patients who have confirmed COVID positive swab. Inpatients who test positive and subsequently have a negative swab will still be considered a Red pathway patient.
2. **Amber pathway**: This will accommodate patients in three different situations: patients with no swab result available in previous 48 hours; suspect COVID but swab awaited; unlikely COVID but swab awaited.
3. **Green pathway**: **COVID swab negative inpatient within previous 48 hours**. (In patients who have previously tested Red will never be classified as Green even if they have a negative swab)

At present, all inpatients will be assumed to be at risk of acquiring or transferring COVID in the hospital environment and the cath lab processes have been designed to mitigate that risk. Identifying the different groups pre-procedure will determine what location the destination lab, the recovery location and the physical pathway between inpatient bed and CCL. Every patient’s pathway should be identified and defined pre-procedure and the following groups need to be informed when requesting to list the patient.

**Location of recovery of inpatients post CCL**

The location of recovery of individual inpatient groups are as follows:

1. **Red pathway**: This patient is confirmed COVID positive and will be **recovered in the lab where the procedure is performed**.
2. **Amber pathway**: This patient is unknown status and will be **recovered in the** **Cath Lab Recovery**.
3. **Green pathway**: **COVID swab negative inpatient within previous 48 hours**. This patient is confirmed negative swab within the previous 48 hours and will be **recovered in the cath lab day unit (CLDU)**.

**Key stakeholders**

1. [Cardiology team on the ward](#team)
2. [Scheduling team](#scheduling)
3. [Cath lab registrar](#registrar)
4. [Ward nursing team and nurse in charge](#nic)
5. [Cath lab coordinator](#coordinator)
6. [Cath lab porter +/- assistant](#porter)
7. [Cath lab team](#cath)

**Responsibilities of key stakeholders**

1. **Cardiology team on the ward**

When the decision is made that a patient requires **an inpatient planned procedure and inpatient emergency procedure**, during cath lab working hours, the following process must be taken.

* Inform the scheduling team – Ala Salameh ([ala.salameh@gstt.nhs.uk](mailto:ala.salameh@gstt.nhs.uk)).
* Information to give the scheduling team must include **COVID swab status** (when it was taken and the result).
* The patient will be confirmed for the procedure at midday the day prior to the procedure.
* No patient will be added on the day of the procedure unless deemed a clinical emergency or agreed by Dr Brian Clapp (intervention) or Prof Mark O’Neill (EP / devices).
* At the start of the ward round on the day of the procedure, the clinical team will review the patients listed for procedures that day to ensure they remain suitable and have been fully prepared to undergo the procedure. If concerns exist, the clinical team will contact the cath lab coordinator and cath lab registrar to inform them and to facilitate communication with the cath lab operators. Ordinarily the cath lab registrar would review the patient on the morning of the procedure, but to reduce the footfall between the cath lab and the wards, the ward team will take on this role.

**2.** **Admissions / scheduling team**

When listing a patient for procedure, the COVID swab status will be confirmed – the date it was taken and the result – in order to plan the location of where the patient will be recovered.

The following locations for recover of inpatients have been identified with the number of bed spaces:

* **Red pathway**: Confirmed COVID positive inpatient – Recovered in the cath lab where procedure was performed. Should be listed last on the list – capacity for **1 patient** at a time.
* **Amber pathway**: Unknown COVID status – Recovered in the cath lab recovery – **4 bed spaces** available. This location is the holding bay for emergencies and treat and transfers.
  + 1 bed space – Emergencies / PAMI
  + 1 bed space – Inpatient amber recovering patient
  + 1-2 bed spaces – Treat and transfer patients
* **Green pathway**: **COVID swab negative inpatient within 48 hours**. Confirmed COVID swab negative inpatient within 48 hours patients recovered in CLDU – **4 bed spaces**

**3.** **Cardiology cath lab registrar**

Inpatients due to undergo CCL procedures are confirmed at midday the day prior to the planned procedure. The cath lab registrar assigned to the cath lab the day prior to the procedure (or on Friday prior to procedure on Monday) should perform the following duties:

* Consent the patient
* Pre-medication prescribed on med chart (antibiotics etc)
* Mark the operation site, if appropriate
* Ensure there is a cannula on the correct site
* Ensure the correct bloods results are available for the procedure
* Contact the scheduling team if they identify that the patient is not suitable for the procedure at this point
* Ensure the patient knows at what point to fast, if applicable
* Communicate with nurse in charge that the above is completed.
* Document on e-noting the following:
  + The patient is listed for procedure next day
  + What procedure the patient is listed for (eg left sided dual chamber pacemaker)
  + Patient’s pacemaker ID/type of device, if applicable
  + Patient’s COVID swab result and planned pathway for recovery
  + Any other clinical concerns that should be taken into consideration

The cath lab registrar should not need to go to the ward on the day of the procedure. It is important to minimise the footfall between the cath lab and the wards where possible.

**4.** **Ward team and nurse in charge**

*Day prior to procedure*: To identify patients listed for procedures at midday the day prior to the procedure. Once identified, the following to be performed:

* Pre-populate the checklist for the next day
* Ensure the patient has an IV cannula in the correct location
* Ensure the correct bloods are available for the procedure the next day
* Identify when the patient’s COVID swab was taken and the result
* Ensure the patient knows when to fast, if applicable.

*Day of procedure*

* Nurse in charge to identify which patients are listed at the morning brief and which nurse is looking after the patient and the patient’s mobility level (ie chair / trolley / walking to the procedure).
* Nurse in charge to identify when the patients COVID swab was taken and the result so they can inform the cath lab coordinator.
* Nurse looking after the patient then completes the checklist for the procedure; patient puts on gown / mask / washes hands. ALL personal belongings and clothing are left at the patient’s bedside and can NOT be transported to the lab. Please see SOP for exact process on patient preparation and transport prior to procedure. **Two inpatients will need to be ready by 08:10 on Tuesdays and Thursdays.** On Monday, Wednesday and Friday two inpatients should be ready by 09:00.

**5.** **Cath lab coordinator**

*Day prior to procedure*

* To check Labyrinth the day prior to the procedure after midday. The inpatients listed need to be categorised into their recovery pathway (Red, Amber, or Green, as COVID swab negative within 48 hours inpatient) and assigned a recovery location for post procedure.
* To identify if the patient is listed from a non-cardiology ward (other than Becket or Stephen wards)
* To ensure the relevant ward is aware of the workflow and operating procedure, the time by which the patient needs to be prepped and ready, and the time critical components of the pathway.

*Day of the procedure*

* To coordinate with the nurse in charge on the wards to facilitate patient transfer to and from cath lab
* To identify, confirm and communicate the patient’s recovery location in advance
* To facilitate good communication between key stakeholders

**6.** **Cath lab porter +/- assistant**

* The cath lab porter is to facilitate transport of inpatients ONLY.
* He needs to be informed whether the patient is on a Green, Amber or Red pathway.
* The porter will collect the patient based on transport guidelines in Inpatient Pathway SOP; ensure the transfer team waits OUTSIDE the cath lab double doors to be escorted to the specific lab.
* Evan Jones patients will NOT be transported by the cath lab porter.
* The assistant helps with patient transport of inpatients and cleaning of chair / trolley pre and post transport.
* Cath lab porter and assistant will be familiar with the SOP and action cards for transporting patients and cleaning of equipment. If unsure, they should ask the cath lab coordinator.
* The **inpatient Red Trolley is cleaned in Lab 2** and remains there until required for transporting the inpatient on the Red pathway back to the ward.

With regards to *location to clean the beds*, please transfer the trolley directly into the following locations:

* **Red patient**: Bed to be brought into **cath lab 2** and cleaned
* **Amber patient**: Bed brought to **cath lab recovery** bay and cleaned
* **Green patient** - Bed brought to **CLDU** and cleaned

*Brief summary of cleaning required as follows:*

* Following completed transfer, wheelchair used to be wiped down with Clinell (green) and then 1% hypochlorite (chlorine-based disinfectant) wipes, to be performed by person involved in patient transfer wearing PPE.
* Persons involved in patient transfer and intervention/ procedure follow PPE doffing procedure (See [Action card 8a](https://www.guysandstthomas.nhs.uk/resources/coronavirus/action-cards/action-cards-8a-ppe-for-agp.pdf)).

**7.** **Cath lab team**

* Ensure familiarity with the inpatient pathway.
* The cath lab team should not be going between the cath lab and wards where possible.
* Clear communication between the cath lab team and cath lab coordinator imperative to facilitate effective pathways.