

# Admission of patients on the Cardiac Catheter suite and ensuring safe transfer of patients to the Hybrid lab pre and post Device insertion

## Standard Operating Procedure

The operating procedure set out below must comply with the Data Quality Standards set out within Trust Data Quality Policy

### 1. Overview

The purpose of this SOP (STANDARD OPERATING PROCEDURE) is to ensure that patients are safely admitted and prepped for Device insertion in the Cardiac Catheter suite and to ensure safe transfer of patients to the Hybrid Lab pre and post Device insertion.

### 2. SOP Governance

**Department:** Cardiac Catheter Suite

**No of pages:** 8

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**Frequency and Time frame:** 2 years

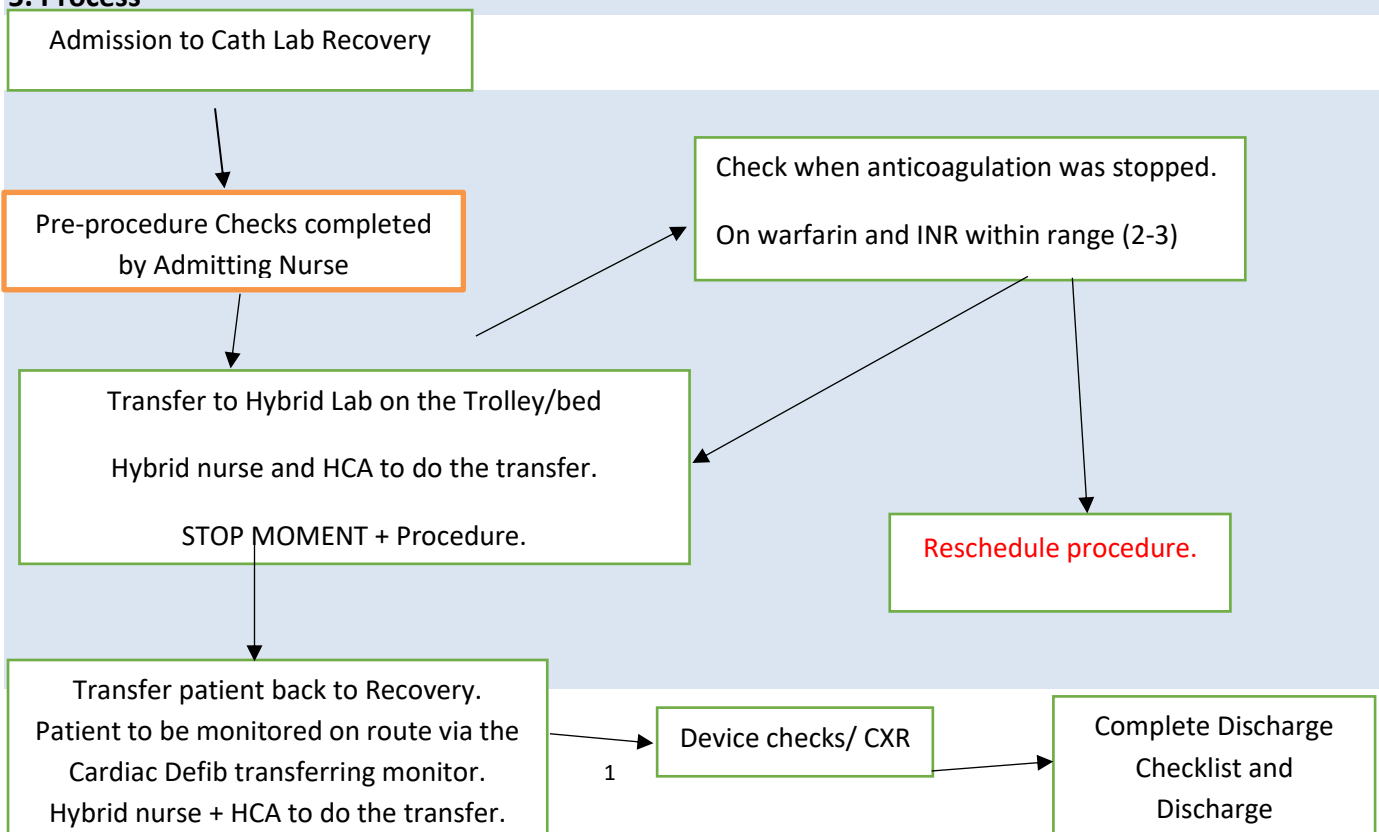
### 3. Key indicators, output or purpose from this procedure

- To ensure a safe workflow for the treatment of elective or inpatients undergoing device insertion.
- To ensure correct step by step perioperative management for patients admitted for device insertions within the Cardiac Catheter Suite and Hybrid lab.
- To ensure safety measures are adhered to during the transfer of patients between the 2 units.
- To ensure appropriate monitoring and effective communication is maintained throughout and within each unit.

### 4. Data Source(s)

- ICP for devices
- Performance Report
- STOP moment

### 5. Process



## 6. Validation Checks

- STOP MOMENT
- Please see detailed instructions on Part 10 which offers assurance and description of Validation checks required.

### Sign off (separation, supervision, authorisation)

Stage/ purpose	Name and role	Date (how/ where evidenced)
Peer review:	XXX	XXX
Supervisor/ Lead review:	XXX	XXX
Information Asset Owner/ Trust Lead:	XXX	XXX

## 7. Information Governance

- All staff to keep update with the IG training.

## 8. Export/ use of data

- Patient medical records stored as per trust policies and procedures.

## 9. Detailed Instructions

### Co-ordinator's Role/Nurse in Charge (NIC)

- To ensure that outpatients are allocated to go in the Hybrid lab for Device insertion in the morning session.
- QBH Inpatients transferred for Device Insertion must be done in the morning if possible.
- To ensure that Inpatients are allocated to have Device insertion in the Hybrid Lab for afternoon session.
- NIC to ensure that Circulating nurse and Scrub nurse are allocated to be in the Hybrid Lab.
- The Hybrid nursing team allocated is responsible for the transfer of patients to Hybrid Lab for Device insertion and to Recovery post device insertion.
- To ensure that NIC has allocated x1 RN as the transfer nurse who will be responsible to transfer the patients to Hybrid Lab for Device insertion and to Recovery post Device insertion.

### Patient admission on the Cardiac Catheter Suite

The Registered nurse will ensure safe admission of patients pre-procedure on the Catheter Suite. All information must be documented in the Device Integrated Care Pathway.

The following information must be recorded in the Integrated Care Pathway Pre-procedure:

- Patient name, Date of birth, Gender
- Identification number – NHS number with hospital number.
- Planned Procedure/ emergency.
- Site and side of procedure.
- Past medical history – Comorbidities.
- Allergies.
- Infection issues – check with patient if they are on any antibiotics.
- Check if patient has an open wound or broken skin (if any wounds then advice medical team).

- Anticoagulant's medications – check when they were stopped.
- Blood tests (if not done days before procedure or if they need to be rechecked) - U&E, FBC, INR (if on warfarin), CRP.
- Cannula insertion on the left side.
- Falls risk assessment.
- Day of procedure ECG.
- Check Blood pressure, temperature, respiration rate, pulse
- Check height and weight.
- Remove hair from procedure site using clippers (must be clipped from nipple upwards)
- Patient washed with Chlorhexidine.
- Document pre-procedure checks in the Device insertion pathway.
- Check consent form has been done by the Operator.
- IV antibiotics prescribed on the yellow paper drug chart and administered to patient.

### **Hybrid Lab Checks**

- Hybrid nursing team to ensure Controlled Drugs have been checked in the morning and on finishing the lab session.
- Ensure that all other drugs required have been checked and are available.
- Ensure that the Resus trolley checks have been done.

### **Transfer of patient to Lab**

- The Hybrid nursing team to ensure that the Hybrid lab is ready and clean for use and all equipment is working.
- Team consists of Consultant, Physiologists, Radiographer and Circulating Nurse and Scrub nurse.
- Circulating nurse communicates with the Co-ordinator for when they are ready to receive the patient in the Hybrid Lab.
- The Hybrid nurse + porter to transfer the patient to the Hybrid lab on a bed/trolley once the whole team is ready.
- Inpatients being monitored via telemetry must be transferred to the Hybrid lab on the bed being monitored via the transfer Cardiac Defibrillator.
- STOP MOMENT to be observed once the Cath lab team is ready, on arrival to the Hybrid lab, the Circulating nurse will lead the Stop Moment. Every member of the Operating team must be attentive whilst the stop moment is being done ensuring all the checks have been completed.

### **Role of the Circulating Nurse**

- The Circulating nurse must lead the Stop Moment.
- The circulating nurse will ensure all members of the team are wearing correct PPE required. (Face mask, surgical cap and scrubs).
- The Circulating nurse will attach a long line on the patient's cannula (this will ensure IV drugs are given easily without disturbing the operator and for infection control) Venogram will also be done through this line if required.
- Ensure safe transfer of the patient from the bed to the table.
- Patient will remain awake during procedure - procedure is done under local anaesthesia.
- Attach a Blood pressure cuff to the patient and saturation probe.

- Take baseline observations inside the Catheter lab before procedure starts.
- Ensure that the doors are locked once procedure is starting.
- Open the Sterile Pack for the Operator.
- Open the equipment required for the procedure once the Operator is ready.
- Maintain sterility whilst opening the stuff required.
- Continue monitoring patients' observations during the procedure – Blood pressure and saturation. (Every 5-15minutes or per the Operator's requests).
- Administer analgesia and other medications required by the Operator.
- Document procedure whilst being done.
- Count the swabs and other equipment with the Operator pre and post procedure.
- Document handover in the patient's notes once procedure is completed.
- Apply pressure dressing if required.

## ① 2 – Post Procedure Care Instructions

- The Operating clinician documents the post procedure care in the medical notes before patient is transferred back to Recovery/ward.
- To ensure safe transfer of patients to the Recovery/ Ward area, all patients need to be Cardiac monitored on transfers post Device insertions. (Ensure the Cardiac Defib is fully charged for the transfer) The Circulating nurse to ring the NIC on the Primary phone once procedure is completed.
- NIC to send HCA/AP to collect patient from Hybrid Lab.
- Patients must be transferred to Recovery/ Ward area post procedure by ILS trained nurse and a porter.
- The Hybrid nurse must carry portable oxygen and Transfer box for transfers post procedure.
- Circulating nurse to handover to the Recovery/ Ward nurse
- Advise the Recovery nurse on actions to be taken e.g., pacing checks or CXR.
- Attach the patient to the Cardiac monitor if pacing checks have not been done.
- Monitor patient's blood pressure, respiration rate, temperature, pulse and wound. – Follow the observation regime: Post procedure observations to be checked every 15minutes for the first hour, every 30minutes for the 2nd hour and discharge home after 3rd hour observations if patient is well. Observations should be increased if patient's condition changes/ deteriorates – Consult the Medical team.
- Post procedural ECG.
- Wound should be monitored for signs of infection, haematoma, and bleeding.
- Offer patient analgesia.
- Ensure the patient is given something to eat post procedure and encourage fluids.
- ECG must be repeated before discharge + Observations on discharge
- Minimum recovery time before discharge is 3hours.

## Discharge Checklist

1. Pacing checks done
2. Discharge ECG must be done (2<sup>nd</sup> ECG post procedure) - to be signed by the medical team.
3. CXR done and must be reviewed by the medical team – Documented in the patient's notes.
4. Patient must be seen by the Physiologists for post procedural information and Pacing clinic appointment letter and wound advice.

5. Check with medical team for when patient will commence the anticoagulants.

**References:**

[Information Governance \(IG\) | z UHDB Intranet](#)  
[Infection Prevention and Control \(IPC\) | z UHDB Intranet](#)  
[Tool and Resources \(who.int\)](#)

SOP-CLIN/4363/24

**Protocol for Management of Anticoagulation and Antithrombotic Agents in Devices**

Reference No:

**Patients on Warfarin and Antiplatelets**

**Table 1**

Anticoagulation / Antiplatelet therapy	Recommendation
<b>For patients on WARFARIN</b>	
<b>Atrial fibrillation</b> <ul style="list-style-type: none"> <li>CHA<sub>2</sub>DS<sub>2</sub>VASc score 0 (on anticoagulation awaiting DCCV/Ablation)</li> <li>CHA<sub>2</sub>DS<sub>2</sub>VASc score 1 to 4</li> <li>CHA<sub>2</sub>DS<sub>2</sub>VASc score ≥ 4 (High risk group see Table 3)</li> </ul>	<ul style="list-style-type: none"> <li>Bridging is not required</li> <li>Stop <b>48 to 72 hours</b> pre-procedure</li> <li>Continue warfarin (aim INR 2.0 – 3.0)</li> </ul>
<b>Other indications</b> <ul style="list-style-type: none"> <li>DVT/PE/Blood disorders</li> <li>LV thrombus</li> </ul>	<ul style="list-style-type: none"> <li>Continue warfarin (aim INR 2.0 – 3.0)</li> <li>Discuss with Devices consultant</li> </ul>
<b>Mechanical valves</b> <ul style="list-style-type: none"> <li>Aortic Valve Replacement (aim INR 2.5 – 3.0)</li> <li>Mitral Valve Replacement (aim INR 2.5 – 3.0)</li> </ul>	<ul style="list-style-type: none"> <li><b>DO NOT STOP Warfarin. DO NOT bridge with Unfractionated heparin/LMWH</b></li> </ul>
<b>For patients on ANTI-PLATELETS</b>	
<b>Dual antiplatelet (DAPT)</b> <ul style="list-style-type: none"> <li>&lt; 1 month</li> <li>&gt; 1 month</li> </ul>	<ul style="list-style-type: none"> <li>Continue DAPT. No interruption required</li> <li>Discuss with Interventionist/Devices Consultant</li> </ul>
<b>Triple therapy (DAPT + warfarin/NOAC)</b>	<ul style="list-style-type: none"> <li>Discuss with Interventionist/Devices consultant</li> </ul>

**PLEASE NOTE:**

- OMIT LMWH DAY BEFORE PROCEDURE**
- DO NOT GIVE THERAPEUTIC LMWH/UNFRACTIONATED HEPARIN AS BRIDGE TO PROCEDURE**
- CHECK INR ON THE DAY OF PROCEDURE (AIM INR ≤ 3.0)**
- RESTART NOAC AS PER TABLE 2**

**Patients on Direct-Acting Oral Anticoagulants (DOAC) Table 2**

DOAC	Renal function as creatinine clearance ml/min	Preoperative suspension of DOAC		Postoperative resumption of DOAC	
		Low bleeding risk	Moderate to High bleeding risk	Low bleeding risk	Moderate to High bleeding risk
Dabigatran	>80	24 hours	48 hours	12-24 hours*	48-72 hours*
	50-79	24-48 hours	48-72 hours		
	30-49	72 hours	96 hours		
Apixaban	>50	24 hours	48 hours	12-24 hours*	48-72 hours*
	≤50	48 hours	72 hours		
Rivaroxaban	>30	24 hours	48 hours	12-24 hours*	48-72 hours*
	≤30	48 hours	72 hours		
Edoxaban	>30	24 hours	48 hours	12-24 hours*	48-72 hours*
	≤30	48 hours	72 hours		

**Risk group stratification**

Table 3

Risk Group	
<b>High</b>	Mechanical mitral and aortic valve CVA/TIA within 3 months CHA <sub>2</sub> DS <sub>2</sub> VASc ≥ 4 Rheumatic heart disease Clotting disorders VTE/PE within 3 months Bicuspid aortic valve Severe thrombophilia (deficiency of protein C or S)
<b>Moderate</b>	CHA <sub>2</sub> DS <sub>2</sub> VASc ≥ 3 VTE/PE within 6 – 12 months Active cancer
<b>Low</b>	CHA <sub>2</sub> DS <sub>2</sub> VASc ≤ 2 VTE ≥ 12 months without prior risk factors

