NURSING PROTOCOL FOR THE REMOVAL OF EPICARDIAL PACING WIRES FOLLOWING CARDIAC SURGERY

Epicardial pacing wires can be removed anytime from 24 hours after surgery to discharge. Temporary epicardial pacing wires should be removed on instruction from a Consultant Cardiothoracic Surgeon, Cardiothoracic Registrar or SCP – this should be requested 24 hours prior to discharge and they should not be removed after 4pm. **Only at the surgeons' request should pacing wires be removed on the day of discharge, the patient should be monitored for 6-8 hours following removal before discharge.**

Aims of protocol:

1. To provide nursing guidance for the safe removal of pacing wires
2. To ensure patient safety by reducing the risk of potential complications of pacing wire removal

Section	Nursing Action	Rationale
1/ Haemodynamics	• Ensure that the patient has been haemodynamically stable for 24 hours prior to wire removal and has not required pacing for at least 12 hours • Carry out an ECG and baseline observations prior to removal. The ECG should be checked and signed by a Doctor /SCP/Specialist Nurse	This will confirm that the patient's condition is stable and that they are not dependent upon the temporary pacing wires. ECG is looking for evidence of developing third degree Heart Block, which requires the wires to be left
2/ Clotting Profile	• If the patient is taking Warfarin ensure the INR <3.0 prior to removal • If the patient is due to commence Dabigatran for Atrial Fibrillation remove the TPW prior to commencing. If the patient has been receiving Dabigatran stop it 48 hours prior to removal. This should be checked by a Doctor. • There is no need to stop low weight molecular heparin, aspirin or Clopidogrel	To reduce the risk of tamponade following removal.
3/ The procedure	• The nurse must provide a comprehensive explanation of the procedure to the patient, to ensure that the patient has a full understanding of intended	Health and safety of the patient, to reduce the risk of cross infection.

	procedure and to gain consent to undertake this procedure. • Ensure that the patient is lying comfortable on the bed, using aseptic technique cut the attaching suture. Remove the atrial wire first (this lies to the right of the sternum) gently pull the wires using a steady slow motion. If a lot of resistance is met inform the Registrar on call/ SPN or SCP. • Check each wire for tissue fragments and inspect wires for intactness before discarding in a yellow bag. If infection is suspected the nurse should place the wire into a sterile pot and send it to microbiology for C & S	
4/ Post Procedure	• Advise the patient to rest for 1 hour on their bed following the removal of wires, Perform observations at 30 minutes and at one hour and four hours post removal, if there are any abnormalities, please inform nurse in charge/ medical staff /SPN/SCP. • Document date and time of removal. • Advise the patient to inform you if they feel unwell or experience palpitations.	To clinically observe patient for any signs or symptoms of potential complications and initiate early intervention. (Any change in observations, heart rate and rhythm, pain, bleeding etc)

<u>Potential Complications</u>

Cardiac tamponade
Bleeding from exit wire secondary to the laceration of the myocardium or nearby blood vessels
Arrhythmia secondary to mechanical irritation of the myocardium
Patient develops new third degree heart block
Migration of a wire fragment
Infection
Injury to saphenous vein grafts

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