

Prevention of post operative infections following pacemaker implantation

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HOSPITAL INFECTION CONTROL POLICY

Policy no: ICU05Pol2013v01.0

Infection Prevention Policy for device implantation procedure at Mater Dei Hospital Cardiac Catheterisation Suite

Kura >> Policies>>Infection Control Unit>> Infection Prevention Policy for device implantation procedure at MDH Cardiac Catheterisation Suite

Also from Infection Control Unit (Infection Control Unit yellow icon on desktop)



MRSA PREVENTION & ANTIBIOTIC PROPHYLAXIS





INFECTION CONTROL UNIT



- Home
- Antibiotic Guidelines
- Central Venous Catheter
- Forms
- Hand Hygiene
- Infection Control Policies
- Influenza
- MRSA/ MROs [including KPC]
- Other Guidance
- Patient Information
- Peripheral Venous Cannulae
- Reports
- Staff Information
- Videos
- Lecture Notes
- Link Programme
- Gentamicin**

INFECTION CONTROL - INFORMATION

Infection Control is the discipline concerned with preventing nosocomial or healthcare associated infection. It is an essential though often under recognized and under supported part of the infrastructure of health care. Infection control and hospital epidemiology are akin to public health practice, practiced within the confines of a particular health care delivery system rather than directed at society as a whole.

Infection control addresses factors related to the spread of infections within the health-care setting, including prevention, monitoring/investigation of demonstrated or suspected spread of infection within a particular health-care setting, and management. It is on this basis that the common title being adopted within health care is "Infection Prevention & Control"

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CALCULATORS

- Gentamicin Calculator - PROPHYLAXIS
- Gentamicin Calculator TREATMENT

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A B C D E F G H

CREATININE CLEARANCE CALCULATOR

You only need to fill in the yellow cells

6	Enter Gender	→	m	Enter m or f here
8	Enter Age (years)	→	70	Age in years: (18-84)
10	Enter Height (cm)	→	175	Height in cm: 142-203
12	Enter Weight (kg)	→	70	Weight in kg (35-200)
14	Enter Serum Creatinine (µmol/L)	→	75	If value <15 µmol/L use 15 as your value
17	Ideal body weight (kg)			71
18	Weight for calculation (kg)			70
19	Creatinine clearance (mL/min)			80.4
20	Value to look for in the table below for: Creatinine clearance (mL/min)			>50
21	Value to look for in the table below for: Weight (kg)			70-80

Temporary pacemakers

- No different from a central venous catheter
 - Actually lower risk because they do not possess a lumen
- Antibiotic prophylaxis is not used as a routine in CVCs
 - No rationale to use it for temporary pacemakers
 - Possible exception would be a known MRSA who has not been previously decolonised
 - Discuss with IC
- Option to apply mupirocin/silver sulphadiazine to the exit site for the duration of time that the temporary pacemaker is in place.



Post-op Wound care

- Clean suture lines are to be cleansed using 0.9% saline for wounds using a strict aseptic technique. No disinfectant is required.
- Suture line can be left uncovered once healed; wounds should not be kept covered as it increases risk for infection.
- Infected pacemaker wounds are to be cleansed using an antiseptic such as Prontosan or aqueous povidone iodine. The antiseptic should be left on the wound for 10 minutes and then dried.
 - Afterwards an antiseptic dressing should be applied on the wound.
 - Advice on which dressing to use can be sought from the Tissue Viability Nurses.
- A serum creatinine should be taken at the first post-op visit in patients who were given gentamicin prophylaxis during the operation



Pacemaker infections

Notification:

- Every suspected case of pacemaker infection should be notified to the Infection Control Department and recorded on the appropriate Cardiac Catheterization Suite database.

Investigations:

- All patients should have at least 2 sets of blood cultures drawn at the initial evaluation before prompt initiation of antimicrobial therapy for pacemaker infection.
- When the pacemaker is explanted:
 - aspirate pus with a 2 mL syringe, collecting as little air as possible in the syringe, and replace needle with a sterile cap. Send immediately to the laboratory and request both *Culture & Sensitivity* as well as direct *Gram stain*.
 - In addition specimens of generator-pocket tissue as well as lead-tip should be obtained and sent.
- Patients with suspected pacemaker infection who either have positive blood cultures or who have negative blood cultures but have had recent antimicrobial therapy before blood cultures were obtained, should undergo trans-oesophageal echocardiogram (TOE) for pacemaker infection or valvular endocarditis.



Treatment

- Choice of antimicrobial therapy should be based on the identification and in vitro susceptibility results of the infecting pathogen. It is important to include antibiotics that penetrate biofilms. The advice of a member of the Antibiotic Team should be sought.
 - If pacemaker is left in situ, antibiotic combination including rifampicin are essential
- Duration of antimicrobial therapy:
 - 10 to 14 days after pacemaker removal for pocket-site infection
 - at least 14 days after pacemaker removal for bloodstream infection.
 - 4 to 6 weeks for complicated infection
 - (i.e., endocarditis, septic thrombophlebitis, or osteomyelitis
 - bloodstream infection persists despite device removal and appropriate initial antimicrobial therapy.
- Complete device and lead removal should be considered for patients with:
 - pacemaker pocket infection as evidenced by abscess formation, device erosion, skin adherence, or chronic draining sinus without clinically evident involvement of the transvenous portion of the lead system
 - valvular endocarditis with or without definite involvement of the lead(s) and/or device.
 - occult staphylococcal bacteremia.

