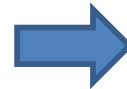


5 Minute Flashcards

Card 15: Diathermy and pacemakers – Side 1

Quickfire starters...

1. What does *diathermy* mean?
2. What are the two types?
3. And why is it used?



What could happen if...

1. A diathermy pad is placed over a metal joint replacement?
2. Diathermy is left lying on patient skin/ drapes?
3. Diathermy is used on a patient with a defibrillating pacemaker which has not been adjusted pre-op?



1. What pre-op actions should be taken in a patient with a CIED?
2. Which type of diathermy is safer to use when the patient has a CIED?
3. Which CIED patients need defib pads placed for surgery?
4. In an emergency, when a cardiac physiologist isn't available, what can be done?



Cardiac implantable electronic devices (CIEDs)

1. What do they do?
2. Where are they located?

Written by Tom Sharp and Neil Kellie

Further reading: Thomas, H et al. Guidelines for the peri-operative management of people with cardiac implantable electronic devices. Anaesthesia, 2022.

5 Minute Flashcards

Card 15: Diathermy and pacemakers – Side 2

1. It's Greek... *dia* means *through* and *therma* means *heat*.
2. **Monopolar** – electrical current passes from the instrument, through the patient, to the grounding pad. **Bipolar** – current passes between two electrodes on the instrument.
3. Diathermy is used for cutting or coagulation.



1. Heat generated in the joint -> burning and scarring of local tissues.
2. Risk of burns to skin, or fire.
3. Diathermy interference interpreted as an arrhythmia by the defib, delivering an unnecessary shock, and risk of cardiac arrest.



1. Consideration of the type of CIED... and if necessary, discussion with cardiology about reprogramming or deactivating it. Discuss this at WHO brief!
2. Bipolar (and short bursts).
3. Those with defib or responsive pacing functions which have been deactivated in anticipation of diathermy use. Pads should be placed away from the CIED, and it must be reactivated post-op.
4. The defib function of most ICDs will be deactivated by holding a magnet over it. If the magnet is removed it will be reactivated.



1. CIEDs can:
 - Pace (pacemakers) - for bradycardias and/or heart failure
 - Shock (ICDs)
 - Record underlying cardiac rhythm
 They may do some or all of these!
2. Usually left side of the chest, but sometimes on the right or in the abdomen (important to check).