

Ref: FOI/GS/ID 6013

Please reply to:
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Trust Management
Maidstone Hospital
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19 February 2020

Freedom of Information Act 2000

I am writing in response to your request for information made under the Freedom of Information Act 2000 in relation to OHCA and IHCA.

You asked:

I would like to obtain information related to the management of out-of-hospital cardiac arrest (OHCA) and in-hospital cardiac arrest (IHCA) and the approach to targeted temperature management (TTM) in patients admitted to Maidstone and Tunbridge Wells NHS Trust following sudden cardiac arrest.

1) Can you please describe what guidelines are currently used in NHS Acute Trust Name for the management of OHCA and IHCA? Please attach a copy of Trust's protocols for the management of OHCA.

2) Has Maidstone and Tunbridge Wells NHS Trust incorporated the European Resuscitation Council Guidelines for Resuscitation 2015 into Trust's post cardiac arrest care protocols?

3) Can you please confirm if TTM is incorporated as part of the OHCA management in Maidstone and Tunbridge Wells NHS Trust? If yes, can you please confirm:

a. what is the target temperature?

b. what method or equipment is currently used to ensure that the target temperature is achieved and maintained?

c. which staff members are currently responsible for delivering TTM as part of OHCA management?

d. What proportion of OHCA that arrive at Maidstone and Tunbridge Wells NHS Trust that receive TTM

4) Can you confirm whether TTM is part of the OHCA training curriculum for the members of the resuscitation and advanced life support team and critical care team at Maidstone and Tunbridge Wells NHS Trust? Please include any relevant training materials and checklist currently in use.

5) Please provide data on outcomes for patients who had suffered OHCA and have been treated in Maidstone and Tunbridge Wells NHS Trust. Can you please tell us the number of patients who suffered OHCA and were admitted to Maidstone and Tunbridge Wells NHS Trust for the period from 2014 to 2019 (please include yearly breakdown where available) that:

- a. have resulted in a poor outcome, such as severe neurological disability, persistent vegetative state or death (CPC scores 3, 4, or 5);*
- b. have been discharged with a good neurological outcome (CPC 1 or 2).*

Trust response:

1) Please see below care bundle.

2) Yes as far as we are aware.

3)

a. Please see below care bundle

b. tryker, Gaymar cooling machine

c. Intensive Care Team

d. The available data is for OHCA admitted to ICU.

4) Please see below care bundle

POST-CARDIAC ARREST CARE BUNDLE
For comatose patients admitted to ICU



Patients name: _____
 Hospital no : _____
 Date of Birth : _____
 Or affix sticky label

Date of initiation _____
 Time of initiation _____
 Time of ITU admission _____

A - AIRWAY	1. Patients with a GCS of <8 should be intubated and secured with an Endotracheal Tube <input type="checkbox"/>
B- BREATHING	2. IPPV to aim for normocarbica (PaCO ₂ 4.5 -5 Kpa) while ensuring normoxia PaO ₂ >10Kpa but below <15Kpa (Hyperoxaemia worsens outcomes). <input type="checkbox"/> 3. Sedation should be used sparingly and be short acting e.g. propofol/remifentanyl. <input type="checkbox"/> 4. Ventilator Care bundle as per saving lives documentation <input type="checkbox"/>
C - CIRCULATION	5. Quad (min) Central venous catheter & Arterial Line <input type="checkbox"/> 6. MAP should be maintained at 90mmHg, with attention being given to adequate fluid resuscitation and inotropic agents being used as required. 7. A urinary catheter must be inserted, a urine output of 0.5ml/kg/hr gives a good indication of adequate end organ perfusion. <input type="checkbox"/> 8. Check electrolytes particularly Magnesium & Potassium (aim for Mg of 1 and K+ between 4.0-4.5 mmol/l). Correct abnormal electrolytes <input type="checkbox"/> 9. Post Myocardial Infarction treatment e.g. thrombolysis / PCI/ ACCS treatments as guided by physician review. <input type="checkbox"/> 10. Baseline investigations 12 lead ECG <input type="checkbox"/> , CXR <input type="checkbox"/> , Lactate <input type="checkbox"/>
D - DISABILITY	10. Seizure activity should be treated with appropriate anticonvulsants 11. 20 degree head elevation marked degrees of head elevation >30° may increase ICP in some patients by causing autoregulatory vasodilatation) <input type="checkbox"/> 12. Targeted Temperature Management unless contraindicated by the exclusion criteria (see below) with cooling using the Gaymar blanket targeting 32 to 36°C (e.g. 34°C) for at least 24hours, avoid pyrexia for 72hrs. <input type="checkbox"/> 13. Glycaemic control using actrapid infusion as per critical care policy to keep BMs 6 – 10mmols <input type="checkbox"/> 14. Consider all post cardiac arrest patients at high risk of raised Intracranial pressure due to cerebral anoxia. Perform half hourly neuro-observations 15. Avoid prognostication for 72hrs. <input type="checkbox"/>
E EXPOSURE & ENVIRONMENT	16. A nasogastric or orogastric tube must be inserted, enteric feeding started and gastric protection e.g. ranitidine prescribed <input type="checkbox"/>

Criteria for Exclusion from therapeutic hypothermia:

- Pre-arrest comorbidities such that they are not a suitable candidate for advanced organ support
- Severe systemic infection
- Severe cardiogenic shock
- Primary coagulopathy

-Developed by Dr Wood from original bundle developed by Dr Angus Turner & Tim Collins Agreed at Cross Site Senior Staff 10/16 Due for Review 10/19

**PLEASE DOCUMENT ANY REASONS FOR VARIANCE FROM CARE BUNDLE:
VARIANCE RECORD**

DATE	CARE INTERVENTION e.g. Airway, etc & number	REASON FOR VARIANCE	DOCTOR / NURSE

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- 5)
- a. Please see below - details number and outcome of OHCA patients admitted to Intensive Care.
 - b. Please see below - details number and outcome of OHCA patients admitted to Intensive Care.

	YEAR	No of OOHCA	DEATHS	Major/Total assistance on discharge
TWH ICU	2014	10	8	0
	2015	11	8	1
	2016	4	3	0
	2017	6	6	0
	2018	11	6	2
	2019	13	8	4
MITU	2014	15	10	0
	2015	15	12	1
	2016	11	8	1
	2017	10	5	0
	2018	14	10	1
	2019	13	11	0

TWHICU – Tunbridge Wells Hospital ICU
MITU – Maidstone Hospital ITU