Arrhythmia (Fast AF)

Name:	D Tamworth	**Observations at start**		**CRT:**	4s
D.O.B.	05/11 (74Y)	**RR:**	Vent settings	**Temp:**	38.2
Address:	(Insert local address)	**ETCO2:**	4.3	**BM:**	12.4
		Sats:	92%	**Weight:**	113Kg
Hospital ID:	746 324 8713	**Heart rate:**	135 (AF)	**Allergy**	Penicillin - rash
Ward:	General surgery	**BP:**	105/45		

Background to scenario	Specific set up
A patient who has just been anaesthetised for a laparotomy for bowel obstruction develops Fast AF	Mannequin – intubated Cannulated with fluid running Anaesthetic induction and emergency drugs Anaesthetic chart
Required embedded faculty/actors	**Required participants**
Anaesthetist (relatively junior)	Anaesthetist Surgeon/ODP/theatre staff in MDT sim

Past Medical History

74 year old, admitted with vague abdominal pain and vomiting for a few days.
PMH: HTN, T2DM, Anxiety. Smoker 15/day.
Lives in a bungalow with husband, manages activities of daily living but slowing down with time.
No airway concerns, NG tube in situ

Drugs Home	Drugs Hospital
Amlodipine, metformin, gliclazide, sertraline	Anaesthetic induction drugs of choice Antibiotics (as per local protocol)

Brief to participants

You are the on call anaesthetic team. You have been asked to assist the anaesthetist in the emergency theatre
Handover – history as above. Induction was uneventful, it was a grade 1 intubation.
They were a little tachycardic pre-induction but just flipped in to AF at around 135 BPM.
I have just started Hartmanns through their only cannula. I'm just a little out of my depth with this and could do with some help.

Scenario Direction

A	Intubated and ventilated
B	RR 12-14, sats 92% on FiO2 0.5. ABG: pH 7.29, pO2 8.2, pCO2 5.6, HCO3 18, BE -6, lac 6.2, Glu 12.4, K 3.2, Ca 1.05
C	HR 135 → 180 (AF). BP 105/45 → 70/35 (min fluid resus pre-op) 1st litre of Hartmanns ongoing. No additional monitoring at induction
DE	Anaesthetised on Sevoflurane, MAC 1.0
Rx	Recognition of critical incident and declaration, call for help as per level of participant Alert rest of surgical team Diagnosis of arrhythmia and discussion of potential causes (sepsis, dehydration, electrolyte abnormality) Treatment (using local protocols/QRH handbook) (correct cause/electrolyte replacement, rate control) Discussion regarding stabalisation vs. proceeding with surgery – surgical correction in this case maybe necessary to treat the cause Discussion regarding post-op destination/level of care Engaging MDT decision making Arrhythmia can resolve after sufficient resuscitation or the scenario can end when required learning points reached

Guidelines

Association of Anaesthetists QRH handbook
Tachycardia https://anaesthetists.org/Portals/0/PDFs/QRH/QRH_2-7_Tachycardia_v1.pdf?ver=2018-07-25-112713-813
Sepsis https://anaesthetists.org/Portals/0/PDFs/QRH/QRH_3-14_Sepsis_v1.pdf?ver=2018-07-25-112714-673

Guidance for Patient Role	
Opening lines/questions/cues/key responses Under GA	Relevant HPC / PMH
Concerns	Actions
Guidance for ODP role	**Guidance for Surgeons**
Opening lines/questions/cues/responses/Concerns Does that blood pressure need treating?	Involved in MDT decision on how to proceed
Actions Prompt as HR increases gradually Can bring in arrest trolley/attach pads	
Guidance for Role e.g. ITU/Anaesthetic Senior	**Additional challenges**
Expectations/actions Support as per level of participant	Confidence of ODP/theatre staff Junior anaesthetist upset they did something wrong requiring debrief

Session Objectives	
Clinical	Management of intra-operative arrhythmia
Non-technical skills	
Teamworking	Coordinating team activities – in a chaotic environment, assessing capabilities of team and utilising them to complete various roles, exchanging information including at handover, supporting junior team members
Task management	Planning for next steps, following guidelines
Situational awareness	Gathering information throughout scenario, recognising and anticipating critical incident
Decision making	Identifying and balancing options for proceeding, continuous re-evaluation

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