

OMD Podcast: CPR Induced Consciousness (CPRIC)

Summary Points:

- Why Some People Wake Up During CPR
- Why Being Awake During CPR Is A Problem
- How to Deal With CPR Induced Consciousness



• Why Some People Wake Up During CPR

- Occurs when CPR is effective enough to provide sufficient perfusion to the brain to allow some activity
 - Varies from eye fluttering, groaning, non-purposeful movement
 - Can include complete consciousness
- Once CPR stopped, perfusion ceases and LOC recurs (not the same as ROSC)
- Predictive factors are not well identified
 - Can be with both witnessed and unwitnessed arrest
 - Age does not appear to be a factor
 - ACD use
 - High-quality CPR
 - Cases have been reported even in elderly patients with unwitnessed arrests
- Seems to have become a lot more common after the popularization of ACDs in EMS
- May be a good prognostic factor as the patient is capable of perfusing the brain despite arrest

• Why Being Awake During CPR is a Problem

- Extremely distracting to healthcare providers
 - Confuses ROSC with CPRIC
 - Leads to premature and prolonged pauses
 - Compromises CPR fraction
 - Causes confusion and possibly dissent among providers
 - Patient discomfort and agitation interfere with provision of high-quality CPR which is what the patient really needs
 - May lead providers to do "gentle" compressions in an effort to not hurt the patient, but end up with ineffective CPR
- Patients remember the uncomfortable process of undergoing CPR and defibrillation
 - A scarring experience for anyone to endure
 - Can affect future interactions with healthcare

• How to Deal with CPR Induced Consciousness

- DO NOT TERMINATE THE RESUS
 - A positive prognostic factor, initiate transport to hospital like in EMS-witnessed arrest
 - Though it is a positive prognostic factor, it does NOT mean you are out of the woods
 - These are still critically ill patients and will ONLY survive if you continue to provide high-quality CPR
- Puts the decision on the medic:

-Do you feel that the level of consciousness will significantly interfere with the provision of good care?

- If yes, interventions should be made

- If no, consider putting main focus on CPR

- May be situationally dependent

-For patients with minimal activity (eye fluttering/non-purposeful movement) soft restraints alone may be sufficient to prevent interference with provision of care

-If patient felt to be significantly conscious or impeding care, ketamine may be used for sedation

- Case reviews have described recollections of patients pre- and post-dissociations by ketamine

- Helps decrease memory of stress and discomfort

- Can do 1mg/kg IV or IO with max dose of 200mg

- AVOID Versed- more likely to cause worsened hemodynamic state

-Do not use sedation unless absolutely necessary as even with ketamine causes less favorable hemodynamics. This a risk-benefit decision.

-Keep in mind, the number one priority is provision of high-quality CPR

- This is what will keep their brain and heart alive and keep the likelihood of brain-damage as low as possible

Summary in Brief

-CPRIC is real!

-Multiple different levels of CPRIC ranging from twitching to full consciousness

-Difficult to predict the type of patient who is likely to have CPRIC

-Treating CPRIC is a risk benefit decision; sedation helpful if consciousness impedes delivery of high-quality CPR

-Sedation should be done with Ketamine per protocol

-No matter what, CPR is the priority