Awareness during anesthesia is characterized by auditory perceptions, pain, and dream like states and associated with post-traumatic stress disorder (PTSD). Little is known about awareness during cardiac arrest (CA). Although, these phenomena share similarities, there are differences. In particular during CA, patients may report visual perceptions (‘seeing’ and recalling events). Furthermore, some experiences are associated with the scientifically imprecise entity of ‘near death experiences’ (NDE).

Objectives: To determine the incidence of awareness (visual or auditory) during CA as well as the characteristics of patients’ recollections was conducted. We further examined the feasibility of testing the accuracy of visual and auditory recollections using standardized tests by pre-installing shelves containing images as well as instructing research staff to provide set auditory cues during resuscitation where possible.

Methods: A prospective cohort study across 15 US, UK and Austrian hospitals. Survivors underwent a structured interview which included questions on visual and auditory impressions as well as the Greyson questionnaire to quantify experiences typically classified as NDE (score >7).

Preliminary Results: 2060 cardiac arrest events were recorded with a reported survival of 16%. A total of 142 patients met inclusion criteria and were interviewed. Of these 38% perceived having memories from their time of CA and 8.9% had a Greyson NDE scale score >7, consistent with a conventionally defined NDE. Two experienced visual recollections of being able to ‘see’
events, and one accurately described details corresponding with a verifiable period that may be up to 3-5 minutes of CA in which cerebral function would ordinarily not be expected. Placement of images corresponded with 22% of all CA locations. The two patients did not have CA in areas with images. Conventional methods of auditory testing for implicit learning during resuscitation was found not to be feasible.

**Brief Statement of Conclusions:** Awareness during CA may be more common than previously thought. These experiences may not reflect the conventionally defined NDE, yet indicate that consciousness may not cease as expected with cessation of heartbeat during CA. Studies are needed to assess the accuracy of claims of visual and auditory perception and their relationship with the quality of cerebral resuscitation. Claims of visual awareness consistent with so called out of body experiences during CA are unlikely to be hallucinatory. Studies are also needed to delineate the role of explicit and implicit recall following CA which may impact on the occurrence of PTSD and other life adjustments post CA.