

Beyond the return of spontaneous circulation – a quality improvement initiative in an Oncology Critical Care

Introduction :Survival and subsequent good neurological outcome following cardiac arrest depends on prompt diagnosis, good-quality cardiopulmonary resuscitation (CPR) with minimal interruptions and rapid defibrillation. In the post-resuscitation phase, diagnosis and treatment of the underlying cause for the arrest with avoidance of hypotension, hyperthermia, hyperoxia, hyper/hypoglycaemia and management of seizure activity confers the best chances of a successful outcome.

Objectives: In the pilot study, it was noted that there were 60 cardiac arrest with 20-30 % paediatric. It was noted that the post resuscitation care is not consistent and not documented properly. There was very high mortality rate compared to other oncology centers around the globe, which was multifactorial and post resuscitation care was one of them.

Methods: Cause and effect diagram was used as the quality improvement tool. % inputs were identified as people, environment, equipment, material and methods. Each input’s causes were identified and quality improvement initiative was started.

Data was collected from the Hospital electronic record. The quarterly cardiac arrest’s were analyzed and detail study was done on the post resuscitation care provided in ICU on the survivors. The post resuscitation care monitoring included use of capnography, strict adherence to the targeted mean arterial blood pressure, Targeted temperature control (TTM), maintaining normoglycemia, and performance of ECG in all patients.

The primary outcome was mortality and secondary outcome was length of stay.

Result: The study was conducted from 1st January 2025 to 30 June 2026 (18 months, in 6 quarters). There were 159 cardiac arrest calls, including adult and paediatric patients. Return of circulation as achieved in only 29 patients.24 patients were included in the study.

Conclusion: Although the population size remains low. The mortality rate remined high after cardiac arrest in an Immunocompromised population in low middle income country. This is influenced by multifactorial factors, including chemotherapy induced multiorgan dysfunction.

