

## 199. ACUTE KIDNEY INJURY FOLLOWING CARDIOPULMONARY BYPASS IN CHILDREN

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**Introduction.** Acute kidney injury (AKI) is the most common and most serious complication following heart surgery.

**Aim of the study.** To determine the prevalence of, and risk factors for, AKI following pediatric cardiac surgery.

**Materials and methods.** We retrospectively analyzed 203 patients aged  $\leq 18$  years who underwent cardiac surgery for congenital heart defects; by RACHS-1 category, 41 patients (43%) had an operative risk score  $\geq 3$ . AKI was defined and classified using the pediatric pRIFLE criteria (Pediatric Risk, Injury, Failure, Loss, and End-stage Kidney Disease).

**Results.** 58 patients (28.6%) developed AKI: 40 had AKI with a severity classified as risk (R), 14 had AKI classified as injury (I) and 4 had AKI classified as injury (F). RACHS-1 (Risk-Adjusted classification for Congenital Heart Surgery) category, fluid administration as well as fluid overload were compared between patients with and without AKI. Longer cardiopulmonary bypass (CPB) time ( $P=0.03$ ) and vasoactive-inotropic score ( $P=0.0002$ ) were independent risk factors for AKI. Fluid overload and intraoperative lactate level was not a significant predictor for AKI. Higher pRIFLE classification positively correlated with increased postoperative mechanical ventilation duration, and longer ICU stay ( $P=0.01$ ).

**Conclusions.** In this study, we found a higher prevalence of postoperative AKI in pediatric patients undergoing severe cardiac surgery. AKI was associated with worse early postoperative outcomes. Early prediction and appropriate treatment of AKI during the postoperative period are emphasized.

**Key words:** kidney injury, cardiopulmonary bypass

## 200. IMPACT ON MORTALITY OF RESPIRATORY EVENTS AND VENTILATION ASSOCIATED PNEUMONIA, RETROSPECTIVE DESCRIPTIVE PILOT STUDY

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**Introduction.** Ventilator-associated pneumonia (VAP) remains a dangerous source of morbidity, mortality and it is associated with increased duration of ventilation, intensive care unit (ICU) stay, hospital stay, and cost for healthcare. Clinical pulmonary infection score (CPIS) can be utilized tentatively to determination VAP, to start early treatment and avert mortality. Prospectively accumulated data was retrospectively analyzed from Emergency Institute database HIPOCRATE of hospitalized ICU patients over a year time frame.

**Aim of the study.** The objective of this study is (1) to assess the potential competency of a screening test based on the CPIS to identify and treat patients with VAP; (2) to evaluate risk factors and outcomes associated with VAP.

**Materials and methods.** A retrospective descriptive study was performed including 108 patients supported by mechanical ventilation for more than 48 hours between 18 and 80 years old admitted to the ICU in Emergency Institute. Statistic information of the patients, the duration of