

**Causes and risk factors of re intubation in cardiac surgery ICU in Madani Heart center  
2012-2013**

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**Introduction:** Extubation failure rate is a criteria for evaluating service quality in intensive care unit and its more or less representation show respectively that mechanical ventilation being too long or not fitting Weaning criteria. The standard amount of Extubation failure rate is 5%-20%. Extubation failure increases the duration of admission in intensive care units and healthcare costs. Therefore, this study investigates the causes and risk factors for extubation failure in ICU of Madani hospital in 2012-2013.

**Methods:** after surgery, all adult intubated patients (above 18 years) during one year (2012-2013) in cardiac surgery ICU of Madani hospital that have been intubated again within 72 hours after being extubated based on inclusion and exclusion criteria were enrolled and form was filled out by the researcher and analyzed with SPSS 17.

**Results:** During a year 1264 intubated patients were admitted in Madani hospital cardiac surgery ICU, 31 patients were eligible for inclusion criteria. Extubation failure rate was 2.45%. The Causes of re-intubation were including respectively: hypoxemia, pneumonia, reoperation, loss of consciousness, cardiac arrest, copious secretion, sepsis, acute renal failure, shock, ARDS, seizures and agitation. respectively re-intubation risk factors were including: Diabetes Mellitus, Renal Failure, Heart Failure, Acute Coronary Syndrome, ARDS, IABP and Pneumonia.

**Conclusions:** Lower extubation failure rate than the international standard represents patients getting too mechanically ventilation. Most causes of extubation failure were including: hypoxemia, pneumonia, reoperation, loss of consciousness and cardiac arrest. Most risk factors of extubation failure were including diabetes mellitus, renal failure, heart failure, acute coronary syndrome.

**Keywords:** Extubation failure rate, Cardiac surgery ICU