

## Abstract

# Risk Factors and Causes of Neonatal Mortality at Al Hoceima Provincial Hospital (Morocco), 2016

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## Abstract

**Background:** In Morocco, the neonatal mortality rate is 21.7 / 1000 live births, which represents three quarters of the deaths of children under one year old. In 2015, 3.6% of intra-hospital neonatal deaths in Morocco were recorded in the province of Al Hoceima

**Objective:** The objective is to describe neonatal deaths and identify their risk factors at the Al Hoceima Provincial Hospital.

**Methods:** This is a retrospective case-control study at the neonatal unit of the Al Hoceima Provincial Hospital. The cases were the total of neonatal deaths in 2016. One control for each case was chosen randomly from the newborns admitted to the neonatology unit and taken out alive. The analysis of the data was carried out by Epi-Info 7.

**Results:** The total number of newborns who died in 2016 was 81, with an intra-hospital neonatal mortality rate of 22.85 / 1000 live intra-hospital births. 88.89% of deaths occurred in the early period and 37.04% occurred in less than 24 hours. The main causes were prematurity (39.51%), respiratory distress (19.75%), and congenital malformations (14.81%). 6 factors significantly associated with neonatal death in multivariate analysis. 3 factors were poor prognosis: pregnancy at risk (OR adjusted = 9.70 [3.42, 27.50] 95% CI), birth weight <2500g (OR adjusted = 4.74 [1.88, 11.93] 95% CI), Apgar score at birth <7 (OR adjusted = 4.28 [1.62, 11.34] 95% CI). And 3 factors were of good prognosis (OR adjusted = 0.07 [0.02, 0.27] 95% CI), hospital delivery (OR adjusted = 0.09 [0.03, 0.29] 95% CI), pregnancy followed in prenatal consultation (OR adjusted = 0.06, 0.45] 95% CI).

**Conclusions:** Neonatal mortality in the Al Hoceima hospital remains high and is mainly related to the course of pregnancy and childbirth as well as the characteristics of the newborn at birth. To this end, pregnancy monitoring, confinement in a supervised environment and integrated management of the mother-to-newborn couple are the key measures to reduce this real health problem.

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