The impact of improved staff education and perinatal care on neonatal mortality in Albania

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Context
The infant mortality rate (IMR) remains a significant public health concern. The perinatal death is one of the main indicator representing the status of perinatal care. Evidence based knowledge in our neonatal care unit has substantially increased during the last 5 years.

Objective
To asses the impact of improving staff education and perinatal care on neonatal mortality in our Institution.

Methods
This is a retrospective study
Patients: All neonatal deaths during January 2008 to December 2013, from birth to 28 first days of live, >= 24weeks and >= 500g.
Interventions: Data was collected at Obstetrical-Neonatal Unit " Koco Gliozheni" Maternity of Tirana, inborned at this maternity, divided into three groups: <1500g, 1500-2500g and >2500gr.
Main outcome measures: There was 25933 deliveries in totally. We compared the neonatal deaths related to two periods 2008-2010 versus 2011-2013. Causes of deaths were described according to ICD 10 classification.

Results
There were significant differences according to the number of births for the group <1500g, odds ratio was 1.49; CI 95% 1.2-1.83. There were no significant differences according to the number of births for the group 1500-2500g, odds ratio was 1.1; CI 95% 0.97-1.17; and for the group >2500gr, odds ratio was 0.99, CI 95% 0.96-1.03. There were significant differences related to neonatal mortality according to the groups: <1500g odds ratio was 0.14, CI 95% 0.08-0.2; 1500- 2500g, odds ratio was 0.26, CI 95% 0.16-0.43; >2500g odds ratio was 0.42, CI 95% 0.22-0.78.There were significant differences related to three major causes of neonatal mortality, prematurity, asphyxia and infection.

Conclusion
These results suggest that, to decrease neonatal mortality, improved staff education and perinatal care quality is crucial.