

## **CO75 - Epidemiology of procedural pain in neonatal intensive care units of Portugal**

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**Aims:** To assess the frequency of painful procedures (PP), analgesia practices and related factors, in neonates across neonatal intensive care units (NICUs) of Portugal.

**Methodology:** EPIDOR-NN (Epidemiology of Neonatal Pain) was an observational cohort study in neonates recorded at the bedside by the NICUs staff. Prospective data were collected during six weeks in each unit, on all PP and pain management interventions performed during the first 7 days of the neonate admission. Neonates up to 28 days and admitted for a period over 24 hours were enrolled. Multinomial regression model were used to assess the association between demographics, type of painful procedures and analgesia. Ethical approval from institutions was obtained.

**Results:** From April 1, 2013, to October 30, 2014, 19 of 20 NICUs collected data on 375 eligible neonates. The total number of PP was 6705 indicating a mean of 17.9 procedures performed per neonate. In all, 89.4% of the PP received either non-pharmacological and/or pharmacological interventions. Heel stick was the most common PP (32.3%). Preterm neonates (mean GA=33.3, SD 4.6; range 23-41) received more PP;  $p<0.001$ . Overall, procedures with moderate severity of pain [60.6% (n=4064)] received orally administered sweet solution as pre-emptive analgesia. Only 85 (1.3%) of PP had a severe pain intensity, and as expected received more pharmacological interventions;  $p<0.001$ .

**Conclusions:** This was the first national multicentre study with focus on epidemiology of pain in neonates. Further discussion of overall pain management interventions is warranted. This is the first step to improve strategies to increase the quality of care.

Key words: Procedural pain, Pain management, Neonate.

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