P-243 - EXPANDED NEWBORN SCREENING IN THE FEDERAL DISTRICT: SEVEN YEARS OF EXPERIENCE IN PUBLIC HEALTH NETWORK

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INTRODUCTION: The Expanded Newborn Screening, for Treatable Hereditary Metabolic Diseases, using Tandem Mass Spectrometry (MSMS), began in 1990 and became widely used worldwide. Between 2001-2008, the Newborn Screening in the Federal District followed the National Newborn Screening program of the Ministry of Health tracking four diseases. District law 4190 of August 28, 2008, established the Extended Neonatal Screening in the Federal District (TNNA-DF), aimed at the newborns of the Public Health System for the purpose of screening at least for thirty treatable diseases. **GOAL:** To report the paradigm shift of the Newborn Screening in Federal District with the implementation of the MSMS to perform the TNNA-DF and the results obtained after seven years. **MATERIALS/METHOD:** We retrospectively analyzed the results of the DF Newborn Screening Program (PTN-DF) from 2011-2017. **RESULTS:** Between 2008 and 2011, there was a transition period, with the elaboration of projects for PTN-DF paradigm changes. The blood samples collection started to be performed at the public maternities, and all blood samples were transported in thermal boxes to the Reference Center of newborn screening. These changes were possible by the introduction of high sensitivity technologies, especially the MSMS, modifying the form and time of collection of the samples in filter paper. Between 2007 and 2017, 453,980 children were screened and from January, 2011 to December, 2017, 309,428 children were evaluated in an expanded way. The expected coverage of 100% of the newborns reached 109.4% in 2017 due to the attendance of the cities of the environment and private hospital network. The collection period reached 96.4% with 05 days of life and 100% with 7 days of life. Number of diagnoses per disease (2011-2017): congenital hypothyroidism: 98, hyperphenylalaninemas: 22, hemoglobinopathies: 252, congenital adrenal hyperplasia: 14, biotinidase deficiency: 22, galactosemia: 63, others inborn errors of metabolism: 145, glucose-6-phosphate dehydrogenase deficiency: 7133, congenital toxoplasmosis: 103. **CONCLUSION:** Newborns with positive and confirmed results are immediately referred to the multiprofessional clinics of the genetics unit. TNNA-DF represents a major prevention project in primary health care for the child and high complexity care in the treatment of positive cases, favoring a decrease in infantile mortality.