P-247 - IMPLEMENTATION OF AN INTEGRAL EXPANDED NEWBORN SCREENING PROGRAM IN SOUTHERN MEXICO: AN ELEVEN YEARS EXPERIENCE.

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INTRODUCTION: In the state of Yucatán, México, they have been doing the integral expanded newborn screening program for the detection of congenital metabolic diseases continuously for 11 years, which represents the longest experience of this type in the country. OBJECTIVE: To report the results from the integral expanded neonatal screening program in the state of Yucatan, Mexico. MATERIALS AND METHODS: Retrospective analysis of the data of the integral expanded newborn screening program of the health services of the state of Yucatan. Blood samples were obtained by puncture of the heel of newborns (NB), which were impregnated on filter paper cards and studied in a highly automated analytic platform conformed by fluorometric assay, tandem mass spectrometry, isoelectric focusing and high performance liquid chromatography. The program logistics included a professional service for notification, localization and confirmation of suspected cases and monitoring of medical follow-up for 5 years. RESULTS: From January 2008 to December 2018, with the participation of 148 health centers, 7 hospitals and 27 mobile units distributed in five routes, they screened 174,307 NB, having a coverage of 96.6 %. There were 1,525 suspected cases (0.87% repetition rate), they confirmed 311 cases (1: 560 NB), with 1189 false positives (0.68%). 9 patients were not located (0.52% error rate) and 16 died before the second sampling. Those confirmed included: 194 cases of endocrinopathies (1: 898 NB); 15 of organic acidemias (1: 11,620 NB); 13 of amino acids (1: 13,408 NB); 76 hematological disorders (haemoglobinopathies and glucose-6-phosphate dehydrogenase [G6PD] deficiency) (1: 2,294 NB); 13 cases of other metabolic diseases (1: 13,408 NB) and 678 carriers of hemoglobinopathies (1: 257 NB). CONCLUSIONS: The population studied showed a high prevalence of birth defects (1: 560 NB), being thyroid defects (1: 1,050 RN) and hematological disorders the most common (1: 2,294 NB). The majority of the affected children were opportunely evaluated and began treatment before 20 days of age. Parents received training for the manage and care of the children as well as the accompaniment in the medical follow-up for 5 years.