P-191 - INCREASED INCIDENCE OF CONGENITAL HYPOTHYROIDISM NOT RELATED TO 
LOWERED CUT-OFF VALUES.

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INTRODUCTION: Worldwide incidence of Congenital Hypothyroidism (CH) has 
been increasing each year due to multiple factors. Lowered cut-off values (CO) are 
recognized as one of the main causes, but others variables like the increased 
survival of preterm newborns, iodine deficiency, and other environmental and 
ethnic factors also play an important role. Newborn screening (NBS) for CH in 
Buenos Aires Province (BAP) was implemented at request in 1992, and since 
April/1995 it has been conducted as a program. OBJECTIVE: To describe the 
increment on the incidence of CH not related to lowered CO experienced in the BAP-
Argentina in the period 2001-2017, and the possible factors influencing the 
observed behavior. MATERIALS AND METHODS: NBS for CH was conducted 
using Delfia Neonatal hTSH and AutoDelfia Neonatal hTSH methods until June/1997 
and from then onwards, respectively. On August/2001 the CO was established in 
11.0 µU/ml and kept unchanged until present. Annual and cumulative incidences of 
CH were calculated during the whole NBS period (1992-2017). Annual percentages 
of preterm newborns diagnosed with CH were determined since 1998 onwards. 
Percentages of newborns with TSH > 5 µU/ml were calculated in years 2002, 2005, 
2009, 2013 and 2017 in order to estimate a potential iodine deficiency. 
Percentages of transient CH and the etiologies distribution were determined during 
periods 1998-2004 and 2005-2013. RESULTS: 3,566,703 newborns were screened 
during 1992-2017. The annual incidence in the period 2001-2017 was in the range 
[1: 1,598-1: 3,099], but the cumulative incidence increased from 1: 2,428 to 1: 
2,037. Percentages of hypothyroid preterm newborns increased from 6.6 to 11.1% 
were 2.3, 2.9, 3.3, 4.4 and 4.7 in the selected years. Rates of transient CH cases 
were 4.7% in 1998-2004 and 4.6% in 2005-2013. Etiologies were similar in both 
periods: athyreosis 25.0%, ectopic disgenetic gland 57.1%, eutopic disgenetic 
gland 2.2%, and eutopic thyroid gland 15.7%. CONCLUSIONS: Incidence of CH in 
BAP has increased significantly in the last 17 years despite the CO remained 
unchanged, being the increasing preterm newborns survival and a potential 
development of a mild iodine deficiency the possible reasons for the observed 
behavior.