## EARLY SKIN-TO-SKIN CONTACT AND NEURODEVELOPMENTAL OUTCOME AT $5^{1/2}$ YEARS IN VERY PRETERM INFANTS: THE EPIPAGE-2 COHORT STUDY

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**Background and aims**: Long-term effects on neurodevelopment of Skin-to-Skin Contact (SSC) for very preterm infants are still debated. This study aims to evaluate the association of early SSC on neurodevelopmental outcomes at  $5^{1/2}$  years among very preterm infants.

**Methods**: Using the national population based EPIPAGE-2 cohort, exposure to SSC during the first week of life was evaluated by a propensity score analysis, based on individual and unit characteristics with inverse probability of treatment weighting approach. Outcomes were full-scale-intelligence-quotient (Wechsler Preschool and Primary Scale of Intelligence, 4th edition); behaviour (strengths and difficulties questionnaire); and social communication difficulties (social communication questionnaire) among 2 561 infants born between 24 and 31 weeks, and surviving at 5<sup>1/2</sup> years.

**Results**: Among survivors, 1 581 (61.8%) were exposed to SSC during the first week of life (range among neonatal units from 15 to 75%). At 5  $^{1/2}$  years, SSC was associated with an increased full-scale-intelligence-quotient +1.8 points (+0.0 to +3.6); and with trends for lower scores of behavioural difficulties -0.4 points (-1.1 to +0.4) and social communication difficulties -0.3 points (-0.8 to 0.2).

**Conclusions**: Early SSC during the first week of life among very preterm infants was associated with increased full-scale-intelligence-quotient at 5  $^{1/2}$  years. Variability of practices among units deserves attention. Further evaluation of the dose-effect is needed.

This study is: Approved by an Ethics Review Board (ERB). Please specify:

**Details**: This study was approved by the National Data Protection Authority (CNIL DR-2016-290) and by appropriate ethics committees (Consultative Committee on the Treatment of Data on Personal Health for Research Purposes - reference no. 16.263, Committee for the Protection of People Participating in Biomedical Research - reference 2016-A00333-48).

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