

# EPIPAGE 2 - Epidemiological study on low gestational age infants 2

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## General

### Identification

Detailed name Epidemiological study on low gestational age infants 2

Sign or acronym EPIPAGE 2

CNIL registration number, number and date of CPP agreement, AFSSAPS (French Health Products Safety Agency) authorisation CNIL n°911009 / CCTIRS n°10.626 / CPP SC-2873

### General Aspects

Medical area Gynecology/ obstetrics  
Pediatrics

Health determinants Genetic

Keywords Perinatalité, neonatal mortality and morbidity (respiratory, neurological, infectious, metabolic), neural development (motor, sensory, cognitive), growth), handicaps

### Scientific investigator(s) (Contact)

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enfants

Organization

INSERM

## Collaborations

Participation in projects,  
networks and consortia

Yes

## Funding

Funding status

Mixed

Details

Ce projet a été financé grâce au soutien de:1) l'Institut de Recherche en Santé Publique / Institut Thématique Santé Publique, et des partenaires financeurs suivants : Ministère de la santé et des sports, Ministère délégué à la recherche, Institut National de la Santé et de la Recherche Médicale, Institut National du Cancer et Caisse Nationale de solidarité pour l'Autonomie.2) la fondation PREMUP3) Programme EQUIPEX des Investissements d'avenir dans le cadre de la plateforme RE-CO-NAI

## Governance of the database

Sponsor(s) or organisation(s)  
responsible

Institut National de la Santé et de la Recherche Médicale - INSERM

Organisation status

Public

## Additional contact

## Main features

### Type of database

Type of database

Study databases

Study databases (details)

Cohort study

Database recruitment is carried  
out by an intermediary

A selection of health institutions and services

Database recruitment is carried  
out as part of an interventional  
study

No

Additional information regarding  
sample selection.

Prospective. End of inclusions: 01/12/2011

### Main objective

More than 10 years are passed since the beginning of the EPIPAGE study. The evolutions occurred since justify the creation of a new cohort.

The main objectives of EPIPAGE 2 are:

- 1) Study the becoming of extremely premature children and their families
- 2) The evaluation of care organization effects and medical practice on premature children's health and development
- 3) Research of causes and consequences of prematurity
- 4) Study the path of the different families and the decisions process at the moment of birth and intensive care
- 5) The needs analysis of medical and educational care

One of the originalities of the study is to have permitted the creation of complementary and multidisciplinary projects, in order to reply and deepen to question difficult to handle on the children of the cohort. These projects, based on the same structure of EPIPAGE 2, needs additional investigations and an own funding.

A total of 8 studies have been developed in the field of brain imaging, bio-markers, nutrition, mother-child interaction and ethics:

- ETHIQUE (decision process leading to survival or death of children born between 22 and 26 weeks of amenorrhea)
- EPIFLORE (study of the introduction of the intestinal microbiota)
- EPIRMEX (Study of the executive functions and of the language development, depending on anomalies detected through NRM)
- BIOPAG (Identification of the early bio-markers of pathologies from an umbilical cord sample (DNA, RNA))
- OLIMPE (Study of the existing links between the quality of early mother-child interactions and the neural and developmental becoming)
- CHORHIST (Research of chorioamniontides through anatomo-pathological analysis of placenta)
- EPINUTRI (Study of the associations of the intake of polyunsaturated fatty acids, iron intake and neurological becoming of extremely premature children)
- EPIPAIN 2 (treatment of painful movements in

neonatal intensive care.

#### RE-CO-NAI platform

EPIPAGE 2 is one of the two cohorts constituting the RE-CO-NAI platform, together with the ELFE cohort.

The general objective of this platform is to create an infrastructure offering the measures required for collecting, highly secured storage and distribution of data concerning the pregnancy, the birth and the child.

The research platform consist of cohorts of infants followed since birth will allow to study, in a global and multidisciplinary way, the stakes on health, development and socialization of children.

It will in addition provide substantial visibility in the world of academic research (French and international), but also with regards to bodies, associations, and industries that have interests in children. As such, it will allow for an optimized valorization of the data collected and will facilitate the dissemination of data.

#### Inclusion criteria

EPIPAGE 2 is a population based perspective cohort. All the children born in 25 regions of France, extremely premature (22-26 weeks of amenorrhea) on 8 months, highly premature (27-31 weeks of amenorrhea) on 6 months and moderately premature (32-34 weeks of amenorrhea) on 1 month. A control group of full-born children will be constituted from Elfe study. Children of families having expressed a refusal will not be included. In this case, the information from the health certificate of the 8th day could be used to characterize the population concerned.

#### Population type

##### Age

Newborns (birth to 28 days)  
Infant (28 days to 2 years)  
Early childhood (2 to 5 years)  
Childhood (6 to 13 years)

##### Population covered

General population

##### Gender

Male  
Woman

##### Geography area

National

##### Detail of the geography area

21 regions of metropolitan France and 4 overseas regions (Martinique, Guadeloupe, Guyana, Réunion)

## Data collection

### Dates

Date of first collection (YYYY or MM/YYYY) 04/2011

### Size of the database

Size of the database (number of individuals) [1000-10 000[ individuals

Details of the number of individuals - 8398 prématurés/premature births and Induced therapeutic abortions/avortements - 7595 enfants/children

### Data

Database activity Current data collection

Type of data collected Clinical data  
Declarative data  
Biological data

Clinical data (detail) Direct physical measures  
Medical registration

Details of collected clinical data Clinical examination at inclusion and during the follow-up (birth, 2 years, 5years, 8 years, 11-12 years). Information collected through the clinical examination: motor, sensory, cognitive development, height and weight growth, respiratory pathologies

Declarative data (detail) Paper self-questionnaire  
Face to face interview

Details of collected declarative data Clinical examination at inclusion and during the follow-up (birth, 2 years, 5years, 8 years, 11-12 years). Information collected through the clinical examination: motor, sensory, cognitive development, height and weight growth, respiratory pathologies

Biological data (detail) Biological data from coming from the medical record. For a sub-sample of children (n=150), umbilical cord blood has been taken

Presence of a biobank Yes

Contents of biobank Whole blood  
Cord blood  
Fluids (saliva, urine, amniotic fluid, ?)

Tissues  
Others

Details of biobank content

Maternal blood, umbilical cord blood, stools of the newborn. The constitution of the biological collections that will allow a number of early exposures, as well as markers of health condition, is one of the specific objectives of the two studies of the RE-CO-NAI platform.

Health parameters studied

Health event/morbidity  
Health event/mortality  
Quality of life/health perception

## Procedures

Data collection method

At birth (inclusion), clinical data are collected from the medical record and the medical teams, as well as information from the mother about pregnancy, delivery, intensive care (self-questionnaire and interview with the mother). During the follow-up, data are collected at 2, 5, 8 and 12 years. -A clinical and psychological check-up will be realized at 5, 8 and 12 years (motor, sensory, cognitive development, height and weight growth, respiratory pathologies) - Data concerning child's health, his development, his schooling, his quality of life, possible handicaps, consequences on the family are collected through a self-questionnaire submitted to the mother at 1, 2, 5, 8 and 12 years.

Quality procedure(s) used

Coherence request during and after computer data entry. Missing data checked back to the original file. Subjects and doctors reminders for follow-up visits. Internal quality audit report. Patients receive information about the use of their data.

Participant monitoring

Yes

Details on monitoring of participants

Children will be followed until 12 years old.

Links to administrative sources

Yes

Linked administrative sources (detail)

SNIIRAM (file under preparation)

## Promotion and access

### Promotion

Link to the document

<http://www.hal.inserm.fr/EPIPAGE>

| Description   | List of publications in HAL   |
|---|---|
| Link to the document  | <a href="http://www.ncbi.nlm.nih.gov/pubmed/?term=epipage+OR+25541510[uid]+OR+19932945[uid]">http://www.ncbi.nlm.nih.gov/pubmed/?term=epipage+OR+25541510[uid]+OR+19932945[uid]</a> |
| Description   | List of publications in Pubmed  |
| Access  |   |
| Terms of data access (charter for data provision, format of data, availability delay) | Data utilization possible for academic teams. Access to every interested research team after an evaluation of the project by the scientific council                                 |
| Access to aggregated data   | Access on specific project only   |
| Access to individual data   | Access on specific project only   |