



# Safety of newborns – what can we do in EU and Ukraine?

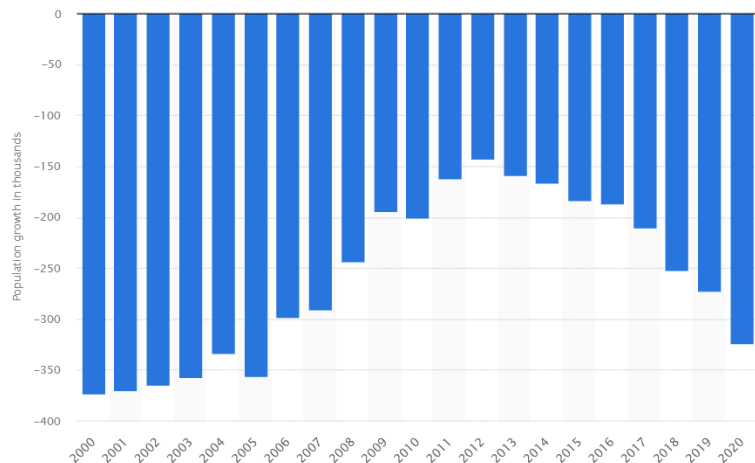
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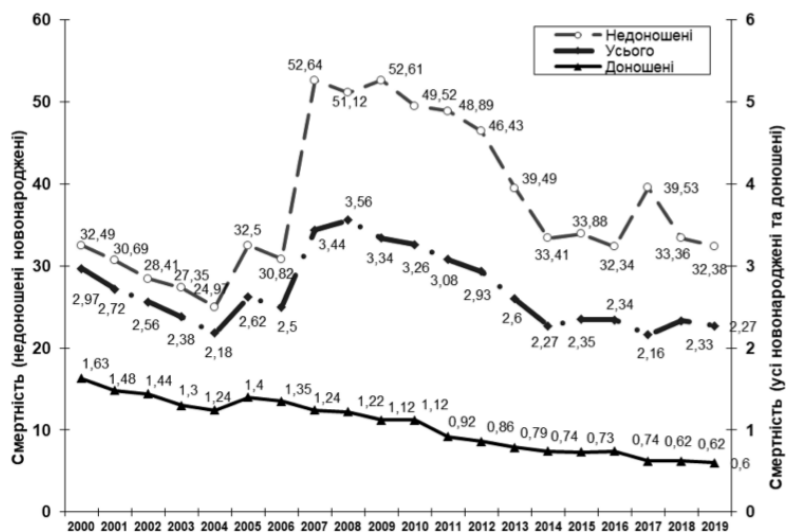


- **BABINTSEVA ANASTASIYA** – Doctor of Medical Science, Candidate of Medical Science (PhD), MD
  - Associate Professor – Department of Pediatrics, Neonatology and Perinatal Medicine, Bukovinian State Medical University, Chernivtsi, Ukraine
  - Pediatric Anesthesiologist – Neonatal Intensive Care Unit, Clinical Maternity Hospital #2, Chernivtsi, Ukraine
  - Neonatal Consultant – Chernivtsi Regional Perinatal Center, Chernivtsi, Ukraine
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- Assoc. Prof. A. Babintseva published 92 papers (articles, theses), wrote 1 monography, authored 4 patents, gave more than 45 presentations to national and international meetings, congresses, conferences, participated at international observership (Poland, France, UK, Austria)
  - Member of Ukrainian Neonatal Association, European Society Pediatric and Neonatal Intensive Care (ESPNIC), European Paediatric Neurology Society (EPNS), European Society for Paediatric Research (ESPR), International Children’s Palliative Care Network (ICPCN)

# Before...



- The difference between births and mortalities in Ukraine was negative in each year under consideration starting from 2000.



- Medical care for newborns in complex neonatal cases has been identified as a priority service in the Medical Guarantees Program.
- 121 hospitals have provided neonatal care, including 22 perinatal centers (II-III level)
- 1572 neonatologists

# Now...



- 3 328 692 Ukrainian citizens left Ukraine (10 % from all), 90 % of them – women and children
- More than 100 children were killed, more than 130 children were injured
- More than 20 hospitals with neonatal care were destroyed



# Project #1

## Neonatal acute kidney injury

- **Goal:** to study renal function in full-term and preterm newborns with disorders of early neonatal period by detecting specific modern biomarkers of AKI.
- **Methods:**
  - serum concentrations of creatinine (SCr), cystatin C (SCysC);
  - urinary concentrations of creatinine (UCr), urine (UUr), total protein (UTPr), albumin (UAlb), immunoglobulin G (UIgG),  $\alpha$ 1-microglobulin (U $\alpha$ 1-MG),  $\beta$ 2-microglobulin (U $\beta$ 2-MG), and neutrophil gelatinase-associated lipocalin (UNGAL);
  - urinary concentrations of enzymes (cholinesterase (UChE), aspartat and alanine aminopeptidases (UAsAp, UAIAP), alkaline phosphatase (UAlPh), lactate dehydrogenase (ULD), gamma-glutamyl transpeptidase (UGGT);
  - US and Doppler-metric characteristics of the blood flow in the different renal arteries

# Project #2

## Neonatal complex neuromonitoring

- **Goal:** to determine indices of the neonatal complex neuromonitoring in full-term and preterm newborns with disorders of early neonatal period by detecting specific markers of HIE.
- **Methods:**
  - Amplitude-integrated electroencephalography (aEEG)
  - Continuous video-EEG (cvEEG)
  - Polysomnography (PSG)\*
  - Near-infrared spectroscopy (NIRS)\*

\* The cooperation with Prof. T. Erler (Potsdam, Germany) and Dr. Dariia Kostyukova (Kyiv, Ukraine / Potsdam, Germany)

# Project #3

## Neonatal complex ultrasound

- **Goal:** to study the relationships between indices of lung sonography and cardiac/cerebral hemodynamics in newborns with RDS.
- **Methods:**
  - Lung ultrasound (LUS)\*
  - Echocardiography (EchoKG)\*
  - Neurosonography (NSG) and Transcranial Doppler Ultrasound (TDU)\*

\* The cooperation with Prof. D. De Luca (Paris, France) and Prof. R. Bokinić (Warsaw, Poland)

## Project #4

# Burnout syndrome among medical staff of neonatal departments: a myth or sad reality?

- **Goal:** to study the rate of formation and potential risk factors promoting BOS of physicians who give medical aid to patients of neonatal age (before, during and after...)\*
- **Methods:**
  - Maslach Burnout Inventory (MBI) test and other
  - NeoBurn questionnaire (developed by the researchers)

\* The cooperation with Dr. C. Patterson (Philadelphia, USA)



**In soon future...**

**Welcome to Ukraine, Chernivtsi and  
Bukovinian State Medical University!**

