

BULLETIN

JUNE, 2026

CHORNOBYL and DEVELOPMENTAL ANOMALIES (2000-2019)

52nd Meeting of International Clearinghouse for Birth Defects Surveillance and Research



Abstract from OMNI-Net UKRAINE to be presented at the 52nd Meeting of International Clearinghouse for Birth Defects Surveillance and Research, Medical Faculty and University Hospital Magdeburg, Germany, September 13 - 16, 2026



SUMMARY:

- Many international and Ukrainian experts believe that the ionizing radiation resulting from the Chernobyl disaster is insufficient to cause congenital malformations.
- Population-based monitoring in Rivne Province demonstrated an association between prenatal exposure to ionizing radiation and infant mortality as well as developmental anomalies.
- This association, which has been reported in many high-profile international scientific journals, has been confirmed and further expanded by recent follow-up data analyses.
- Ignoring these findings is harmful; it is important to confirm them.
- It is necessary to continue population-based monitoring of birth defects in the Rivne region to further elucidate their pathogenesis, as well as plan care and prevention programs.

Population-based monitoring of birth defects in the Rivne region is carried out in partnership with OMNI-Net Medword and OMNI-Net Ukraine, which are full members of EUROCAT (EU - European Network of Birth Defect Monitoring Systems) and ICBDSDR (WHO - International Clearinghouse for Birth Defect Surveillance and Research).

IMPORTANT TO KNOW:

In-utero exposures to ionizing radiation often are lethal or cause malformations.

Population-based monitoring demonstrated an association of in-utero exposures to ionizing radiation with infant mortality and developmental anomalies.

Measuring levels of Cesium-137 (Cs-137) incorporation among pregnant women is necessary.

At the same time, population monitoring of developmental anomalies based on the international standards is necessary, to be carried out within the framework of international consortia.

An ongoing surveillance since 2000 in Rivne province of in-utero exposures to ionizing radiation and a population-based surveillance of prevalence of developmental anomalies demonstrated a likely cause-effect association.

The reported results confirm and expand those in 50 scientific reports published by international journals.

Prevalent developmental disruptions were those the central nervous system and early stages of development of the gastro-enteric tube. Rate of spina bifida in Ukraine is the highest in Europe.

The exposure to ionizing radiation increases teratogenic, mutagenic and carcinogenic risks. Levels of incorporated Cesium-137 (Cs-137) exceeding 100 becquerels per kilogram (Bq/kg) in a significant number of pregnant women pose a significant health risk to both the mother and the child. Important: while measuring the accumulation of Cs-137 in the body, Sr-90 and other incorporated radionuclides were not taken into account.

Studies of the ongoing exposures of gestations to ionizing radiation in Rivne Polissia and in proximities to nuclear power plants are also indicated.

Full version of the abstract is available at: <https://ukraineomni.org/pdf/abstract20260519e.pdf>

UKRAINIAN TERATOLOGY INFORMATION SYSTEM

Information in Ukrainian on factors that disrupt children development

UPDATES

- Linezolid <https://utis.in.ua/linezolid/>
- Lisdexamfetamine <https://utis.in.ua/lisdexamfetamine/>

INITIATIVE ON PROVIDING UROLOGIC CATHETERS FOR CHILDREN WITH SPINA BIFIDA

Free catheter distribution continues – over 44,000 catheters distributed.

EU-UKRAINE PAEDIATRIC UROLOGY WEBINAR SERIES CONTINUE

The webinar series is a part of the ERN eUROGEN – OMNI Net educational initiative supporting Ukrainian clinicians and strengthening collaboration across Europe in the care of children with rare uro-recto-genital conditions.

MORE INFORMATION

OMNI-NET Programs Publications: <https://ukraineomni.org/en/articles-eng/>

Teratogens in Ukraine: <https://utis.in.ua/>

Radiation and developmental anomalies: <https://vimeo.com/66984287>

Video channel: <https://www.youtube.com/channel/UCGvNZ8FVv49W7-8PHCsPPNw>

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