

**International Day of Radiology 2015**  
**Interview on paediatric imaging**  
**Belarus / Prof. Elena A. Ulezko**



**INTERNATIONAL  
DAY OF  
RADIOLOGY**  
AN INITIATIVE OF THE ESR, ACR AND RSNA

**Paediatric imaging in Belarus**

**An interview with Elena A. Ulezko, Deputy Director of Paediatrics and a radiologist at the Mother and Child Republican Scientific and Practical Centre in Minsk.**

**European Society of Radiology: What is paediatric imaging? What age are the patients, and how is it different from regular imaging?**

**Elena Ulezko:** Images of all organs and systems in paediatrics have some peculiarities depending on the age and maturity of the child.

**ESR: Since when has paediatric imaging been a specialty in its own right?**

**EU:** Paediatric radiology has been regarded as a separate radiology specialty since the Department of Paediatric Neurology of the Belarusian Medical Academy of Postgraduate Education was created in 1979.

**ESR: Which imaging modalities are usually used to examine paediatric patients? Does this change depending on the age of the patient?**

**EU:** The choice of modality and type of radiological study to be performed depends on the age of the patient.

**ESR: Some imaging techniques, like x-ray and CT, use ionising radiation. What risk does this radiation pose to paediatric patients? What kind of safety measures are in place to protect children?**

**EU:** X-ray and computed tomography (CT) studies in children should be conducted in strict accordance with medical indications. When performing x-ray examinations, factors such as the technical parameters of the image, distance from the tube to the child, and the sensitivity of x-ray film should be carefully considered. Protective measures when performing CT include the use of low-dose programmes, reducing the scanning duration, and narrowing down the focus of the examination to only the crucial anatomical area.

**ESR: How aware are parents and relatives about the risks of radiation exposure? How do you address the issue with them?**

**EU:** We keep the relatives informed of the need for a radiological investigation to make a diagnosis, which protection measures will be used during investigation, and the general safety of the examination.

**ESR: Undergoing an imaging examination, especially a long procedure like magnetic resonance imaging (MRI), can be an uncomfortable and sometimes frightening experience for some children. How can it be made more bearable?**

**EU:** To reduce the child's anxiety, one of the parents can sit next to the child during the procedure. In some cases, special relaxation techniques can be used.

**ESR: How many imaging exams are performed on paediatric patients in your country each year?**

**EU:** There is general statistical information about examinations in Belarus. In 2014 8,061 radiological studies and 4,554 CT examinations were carried out in children at the Mother and Child Hospital National Research Centre.

**ESR: Access to modern imaging equipment is important for paediatric imaging. Are hospitals in Belarus equipped to provide the necessary exams?**

**EU:** All children's hospitals in Belarus have modern equipment for x-ray studies and opportunities for CT and MRI studies. The Mother and Child Republican Scientific and Practical Centre is a state institution; it is a modern and unique medical institution, which was established in November 2004 as the leading Belarusian centre in obstetrics and gynaecology, neonatology, paediatrics and medical genetics.

Its structure and equipment, the high professional skills of its staff, as well as the application of modern efficient methods of prevention, diagnosis, treatment and rehabilitation, allow this centre to provide a high standard of medical and educational services. All examinations and tests are done using modern, high-tech equipment using up-to-date anaesthesia methods.

**ESR: What has changed in paediatric radiology during your lifetime?**

**EU:** All types of studies available in radiology (ultrasound, x-ray, CT, MRI, angiography, radioisotope diagnostics) can now be conducted for children.

**ESR: Where do you see the next developments in your field?**

**EU:** Future efforts will focus on developing the use of diagnostic methods (ultrasound, MRI) that will replace methods using ionising radiation.



***Elena A. Ulezko** is Deputy Director of Paediatrics and a radiologist at the Mother and Child Republican Scientific and Practical Centre in Minsk. She has a special interest in all modern methods of paediatric radiology, including new-borns. She has published more than 100 scientific works in the field of research in children.*

*Dr. Ulezko is member of the Belarusian Society of Radiology and the Paediatricians Federation Committee of the CIS countries. She has participated in various conferences, seminars and courses in Belarus and abroad, including France, Latvia, Russia, Switzerland and the UK. Every year she gives lectures for radiologists in Belarus together with a team of German doctors.*