Overuse of pediatric CT scans leads to unnecessary radiation exposure

A study presented at an American Academy of Pediatrics (AAP) meeting last fall showed that pediatricians order too many computed tomography (CT) scans of the head in children whose clinical cases do not require CT imaging, unnecessarily exposing them to radiation. (Source: AAP)

Approximately 5-9 million CT scans are performed on U.S. children annually, and the trend is for increasing use each year. When used appropriately, CT scans can be critical in proper diagnosis of children with various diseases and trauma. However, compared to plain x-rays, CT scans deliver much higher doses of ionizing radiation and are the greatest source of medical radiation exposure for the U.S. population. Due to their longer life expectancy and growing bodies, children are more sensitive to the cancer-causing effects of radiation than adults. It has been shown that the lifetime risk of brain tumors and leukemia, while still small, does increase with increasing cumulative doses of radiation from childhood CT scans. Ninety percent of childhood CT scans are done at non-pediatric hospitals, and if the CT scanner settings are not adjusted for the size of the patient, the child will receive an unnecessarily high dose of radiation. (Sources: National Cancer Institute, St. Louis Children’s Hospital, FDA)

Unnecessary pediatric CT scans are part of the larger problem of overuse of radiologic imaging in general, which is estimated to cost $12 billion per year in the United States. (Source: Fierce Medical Imaging)
Encourage physicians to consult clinical guidelines such as the American College of Radiology (ACR) Appropriateness Criteria® regarding when CT scans or other imaging modalities are indicated in children.

Ensure radiologists use pediatric CT scanning protocols to minimize radiation doses. The Alliance for Radiation Safety in Pediatric Imaging has guidance on developing protocols, as well as information for radiologists, radiologic technologists and medical physicists on how to limit radiation exposure in children. The ACR also offers a free, online educational module on pediatric specific CT scanning.

Educate parents on the risks and benefits of pediatric CT with Image Gently's parent educational handout. Image Gently also has a wallet card parents can use to keep track of their children's cumulative radiation exposure.

UPCOMING EVENTS

**WEDNESDAY 21**

- **Disney on Ice: Treasure Trove**  
  Bankers Life Fieldhouse

- **Indiana Green Expo**  
  Indiana Convention Center & Lucas Oil Stadium

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