

# Pediatric radiology: the necessity of a child-friendly diagnosis

*Radiologia pediátrica: quando o diagnóstico deve ser “amigo” da criança*

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In the current context of intense technological development at the dawn of a new era of online digital information, it never hurts to emphasize the concern regarding the education of future radiologists, pediatricians, and, specifically, of future pediatric radiologists. Such education must be directed towards guiding and stimulating the practice of medicine in such a manner to assure that the complementary exams, which are essential for diagnosis and treatment of pediatric conditions, achieve maximum benefit with the lowest possible risk, avoiding unnecessary child exposure to immediate and future risk situations and protecting the child or adolescent from situations of physical suffering or any kind of avoidable psychological aggravation.

The incorporation of some simple actions into the daily practice can bring actual benefits in favor of pediatric imaging diagnosis, in an increasingly child-friendly atmosphere. Among such actions, the following should be highlighted:

The first simple action is to perform the lowest possible number of complementary exams, giving priority to those which can actually generate the necessary, and many times sufficient, data to confirm/rule out a given diagnostic hypothesis. Such objective can, in most of times, be achieved by means of the optimization of the binomial comprised by the improvement in the performance of anamnesis and the physical examination, in

association with a deeper interaction between the pediatrician and the radiologist.

The second action is providing the child not only with appropriate accommodation with respect to ambience, but also with the standardization of techniques and apparatuses suitable to the approaches specifically directed to each age group, guaranteeing a cheerful and friendly physical environment, capable of promoting tranquility and security both for the patient and his family members.

The third action is related to the choice of the diagnostic method which allows for the most appropriate investigation in compliance with the ALARA principle for minimizing risks, emphasizing, in this case, the fundamentals defined by the Image Gently or Image Wisely protocols, where the choices take into consideration the techniques with the lowest doses or those which do not rely on ionizing radiation.

Similarly, the fourth action is related to the utilization of sedatives and anesthetics with the purpose of acquiring a technically perfect image. Such utilization can be reduced, provided the concept of technically sufficient and safe image for obtaining the necessary response to a specific clinical demand is adopted, restricting the utilization of sedatives and anesthetics to very specific situations, taking into consideration the risks within the perspective of a minimally invasive approach.

Huge battles have been fought in the current era of technological advances, sometimes against the excessive utilization of ionizing radiation, other times in the practice of a preventive and judicialized medicine, and sometimes in the administrative field, facing the never ending pressure to reduce costs.

In such a context, it is suggested that the best friend of the pediatric diagnosis is the diligence in the performance of the medical activity of examining the patients and making clinical decisions with care, dedication, responsibility and, mainly, common sense.

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