

August 19, 2019

An open letter to the x-ray imaging community from the American Association of Physicists in Medicine (AAPM)

Since April of 2019, there has been considerable discussion about the use of patient gonadal and fetal shielding in diagnostic x-ray imaging, prompted primarily by the publication of a position statement on this topic by the AAPM. The [AAPM position statement](#) reflects the growing consensus among medical physicists that the routine use of patient gonadal and fetal shielding, once a mainstay of patient radiation protection, may no longer be best practice for protecting our patients. Since its release, the AAPM statement has been endorsed by the American College of Radiology, the Canadian Organization of Medical Physics, and the Health Physics Society.

The AAPM statement was intended to be the beginning of a much larger conversation, one that includes many other stakeholder organizations and individuals. Its purpose is to educate the imaging community that these shields provide no tangible benefit to patients, slow down workflow, and in a small number of cases, compromise an exam by blocking important patient anatomy or increase patient dose when detected by an automatic exposure control system.

While science can lay the groundwork, facilitating a data-driven discussion, any meaningful dialogue about potential changes to clinical practice must include all members of the medical imaging community. Radiologic technologists, medical physicists, health physicists, radiologists, and regulatory agencies are all committed to the same goal – the safe and effective use of medical imaging. Each member of the imaging community brings a unique and valuable perspective to this discussion, all of which must be considered as potential changes to clinical practice are contemplated.

To help facilitate these discussions, the AAPM formed the Communicating Advances in Radiation Education for Shielding (CARES) committee. The committee brings together stakeholders from throughout the field to discuss potential changes in the use of patient shielding. The choice of the committee name was deliberate and recognizes that everyone involved in these conversations has the common goal of using imaging safely and effectively to guide clinical care.

Since the release of the [AAPM position statement](#), different opinions, perspectives, and recommendations have been voiced as to what constitutes best practice with regard to the use of patient gonadal and fetal shielding. Also in April of this year, the FDA's Center for Devices and Radiological Health proposed to repeal the 1976 recommendations to use gonadal shielding on patients undergoing diagnostic x-ray procedures. However, many states have incorporated the FDA's recommendations into their regulations. Thus, the ability to discontinue the use of gonadal shielding may vary across different states, depending on

the wording of their statutes and the willingness of state regulators to issue variances on any such requirements. Hence at the present time, not all facilities will be able to act on the AAPM recommendation – each facility will have to evaluate the evidence and consider its own unique clinical environment and state regulations to determine what patient shielding practice it deems appropriate.

The [AAPM position statement](#) described the most current scientific literature on this topic and accelerated the conversation within the stakeholder community on whether or not the use of gonadal and fetal shielding should be continued. The National Council on Radiation Protection and Measurements (NCRP) similarly has an interest in this topic and has convened a committee to provide recommendations, based on scientific evidence, on whether gonadal shielding should continue to be used routinely. Their statement is anticipated to be published in early 2020, after which time more definitive practice guidelines are likely to be developed.

Meanwhile, the CARES committee is continuing the conversation within the stakeholder community and working, together, to develop educational information about the use of patient shielding, including suggestions for facilities that choose to re-evaluate or change their current patient shielding practices. To develop appropriate materials, *the CARES committee needs to hear from you!* Please submit your comments, concerns, or questions to us at CARES@aapm.org, or follow AAPM CARES on Facebook or @aapmCARES on Twitter. We look forward to continuing this positive and important conversation.

Sincerely,



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