

CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS, INC.

POSITION

Relating to: Gonadal Shielding

It is the position of the Conference of Radiation Control Program Directors, Inc. (CRCPD) to endorse Ending Routine Gonadal Shielding during Abdominal and Pelvic Radiology. The National Council on Radiation Protection and Measurements has issued Statement 13: NCRP Recommendations for Ending Routine Gonadal Shielding during Abdominal and Pelvic Radiology.

This position has been previously acknowledged by the CRCPD Radiation Protection Advisory Committee members, American Association of Physicists in Medicine and the American College of Radiology. In addition, this position is in line with the current version of the Suggested State Regulations, Part F: Medical Diagnostic & Interventional X-Ray & Imaging Systems.

This position is supported by the following:

- The risks of heritable genetic effects are now considered to be much less than previously estimated.
- Improvements in technology since the 1950s have resulted in up to a 95 % reduction in the absorbed dose to pelvic organs from radiography.
- Gonadal shielding (GS) can interfere with the use of automatic exposure control (AEC) and thereby cause an increase in dose to other pelvic and abdominal organs that may be more radiosensitive.
- GS obscures portions of pelvic anatomy and may obscure important findings on radiographs. This limits the practical dimensions and area of the shield.
- Despite adherence to practice guidelines by technologists, GS may not completely shield the gonads in the majority of patients due to the limited area of the shield and the normal variations in patient anatomy.
- A substantial portion of gonadal dose to the ovaries is delivered by scattered x rays that are not attenuated by GS.

Additional material may be found through the CARES initiative: (https://w3.aapm.org/cares/) and the NCRP position statement, trifold, and companion implementation document: (https://ncrponline.org/publications/statements/).

Approved by the CRCPD Membership on May 20, 2021

Kimberly Steves

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