



Hong Kong Institution of Physicists in Medicine
香港醫學物理學院

HKIPM Position Statement on the Use of Patient Shielding During Diagnostic X-ray Examination

The use of radiation protective shields to reduce dose to critical organs on patient during diagnostic radiological procedures has been a common practice for many decades. However, the practice is no longer considered as producing any significant benefit to the patient's health. The AAPM has in year 2019 issued a position statement [1] that recommends the use of fetal and gonadal shielding be discontinued in routine practice in X-ray based diagnostic imaging. According to AAPM, use of these shields may obscure anatomic information or interfere with the automatic exposure control of the X-ray system. These effects can compromise the diagnostic efficacy of the exam which may result in a repeated exam or compromised diagnostic information, which in turn can result in an increase in the patient's radiation dose. The AAPM position statement has been endorsed and supported by a number of professional organizations including American College of Radiology (ACR), Radiological Society of North America (RSNA), Health Physics Society (HPS), Canadian Association of Radiologists (CAR), and Canadian Organization of Medical Physicists (COMP). More recently, the British Institute of Radiology (BIR) published a guidance document on the use of radiation shielding on patients for diagnostic radiology applications [2]. The BIR guidance also recommends that no radiation protective shielding should be routinely applied in X-ray examinations, including CT.

The Council of HKIPM agrees in principle with the recommendations given by AAPM and BIR. However, implementation of the recommendations will make a major change in practice in diagnostic radiology and this may not be accepted by the patients and their relatives (particularly parents of young patients), members of the public, regulators and healthcare practitioners. The Institution considers that smooth implementation of the change requires the endorsement of the state holders on the change and a general consensus amongst the healthcare professionals on an implementation strategy. This in turn would require the launching of an appropriate consultation and educational and program to help the stake holders to better understand and communicate on the recommended changes. The Position Statement is specifically issued to draw attention of medical physicists on the AAPM and BIR recommendations and to encourage them to prepare and contribute to educating the state holders on reasons and principles behind these recommendations.

References:

- 1 AAPM Position Statement on the Use of Patient Gonadal and Fetal Shielding, April 2, 2019.
<https://www.aapm.org/org/policies/details.asp?id=468&type=PP¤t=true>
- 2 The British Institute of Radiology, Guidance on using shielding on patients for diagnostic radiology applications, March 2020.
https://www.bir.org.uk/media/414334/final_patient_shielding_guidance.pdf