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Practice for blood irradiation dosimetry

Pratique de la dosimétrie pour l'irradiation du sang



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Explanatory Material

This international standard is part of the project between ISO and ASTM International to develop and maintain a group of ISO/ASTM dosimetry standards for radiation processing. In accordance with ISO/TC 85 N 1248, Maintenance Procedures for ISO/ASTM Radiation Processing Dosimetry Standards, a joint meeting of ISO/TC 85 WG3 Dosimetry for Radiation Processing and ASTM Committee E61 was held in New Orleans, Louisiana, on January 16-28 to review standards being considered for withdrawal, revision/amendment, or confirmation. Although ISO/ASTM 51939, published in 2005, had been reapproved in 2013, it was decided that this standard should be revised to bring it in line with the new format adopted for the ISO/ASTM standards. A review was conducted to determine if, in addition to the format changes, technical changes would be required. From this review it was decided that major changes should be made to the standard and that it should be revised as a major revision.

The new standard covers the irradiation of blood or blood components in self-contained blood irradiators using photons. The previous version also covered the use of teletherapy equipment and electron beams. The standard provides recommendations for properly implementing dosimetry in blood irradiation. The practice describes a means of achieving compliance with the requirements of ISO/ASTM Practice 52628 for dosimetry performed for blood irradiation and is intended to be read in conjunction with ISO/ASTM 52628.