

Advantages and limitations of physical and virtual dose mapping of medical devices

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Mathematical modeling of dose distribution for radiation sterilization of medical devices provides device manufacturers with valuable capabilities including evaluating product and packaging configurations earlier in product development and performing dose mapping without destructive testing. However, due to the differences in test method between physical dose mapping with dosimeters and virtual dose mapping via computer model, results may not be comparable under certain conditions. This presentation discusses situations in which the dose to product measured by physical or virtual dose mapping may be more accurate using one method or the other.