

Topic: Treatment Planning

1. What is the equivalent square (EqSq) of a rectangular field measuring 8cm by 18cm?

- A. 10.20 cm
- B. 10.93 cm
- C. 11.07 cm
- D. 11.68 cm

Answer:

C. We use the equivalent square formula to solve this problem. The general formula is $EqSq = (2 \times (\text{Dimension 1} \times \text{Dimension 2})) / (\text{Dimension 1} + \text{Dimension 2})$. The calculation is as follows: $(2 \times (8\text{cm} \times 18\text{cm})) / (8\text{cm} + 18\text{cm}) = 11.07 \text{ cm}$.

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2. The Sanford technique is a method used for:?

- A. Prostate irradiation
- B. Total skin irradiation
- C. Breast irradiation
- D. Total lung irradiation

Answer:

B. The Sanford technique is a method used for total skin irradiation. Technical considerations are discussed in the AAPM (American Association of Physicists in Medicine) report no 23.

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3. Daily safety checks on the linear accelerator include all of the following Except: ?

- A. Laser localization
- B. Audio video function
- C. Beam ON indication
- D. Vault shielding

Answer:

D. Daily checks involve checks on a variety of safety features including vault door interlocks. The specific daily requirements are covered in the AAPM (American Association of Physicists in Medicine) report no. 142, Table 1.