LECTURE 11: MONITOR UNIT CALCULATIONS

Problems

11.1. The backscatter factor is 1.035 for a 10 cm × 10 cm $^{60}$Co field. What is the dose at $d_{max}$ if the in-air dose is 105 cGy?

11.2. Determine the treatment time required to deliver dose of 200 cGy to a tumor 8 cm below the surface of a patient exposed to a 6 cm × 15 cm $^{60}$Co field at an SAD of 80 cm. The in-air dose rate at the isocenter for a 10 cm × 10 cm field is 137.6 cGy/min and the output factor is 0.99.

11.3. Determine the treatment time required to deliver dose of 200 cGy to a tumor 8 cm below the surface of a patient exposed to a 6 cm × 15 cm $^{60}$Co field at an SSD of 80 cm. The in-air dose rate at the isocenter for a 10 cm × 10 cm field is 137.6 cGy/min and the output factor is 0.99.

11.4. Given a 10 cm × 10 cm $^{60}$Co field, calculate the TMR for a depth of 8 cm

11.5. Given a 10 cm × 10 cm $^{60}$Co field, calculate the TPR for a depth of 8 cm if the reference depth is 5 cm.