

## **Radiotherapy Viva**

**Examiner: xxxxxx**

Radiotherapy Dose Survey –

- What information did you use to designate controlled and supervised areas?
- Who was responsible for this and who should be informed of the results?

Treatment Planning –

- Examiner drew an outline of a breast, was asked what you would do to remove hotspots in different areas?
- What potential disadvantages would there be if a higher energy was used for treatment?
- What is the difference between collapsed cone and pencil beam algorithms?
- Examiner referred to a lung plan in my portfolio, was asked how the dose distribution would change if a pencil beam algorithm was used to calculate the dose.

Electrons –

- What factors do you need to take into account when calculating the number of monitor units required for an electron treatment?
- How does the electron depth dose curve change through a low density region i.e. lungs?
- How does this differ when compared to photons and how can this simply be accounted for in dose calculations?
- How does the electron depth dose curve change with obliquity?
- What changes are there in the treatment when moving from photons to electrons?
- Describe the checks performed to monitor electron energy and photon contamination? What are you actually measuring?
- How can you convert depth ionisation measurements into depth dose?

Flatness and Symmetry -

- How is flatness and symmetry monitored?
- Draw a beam profile at 5 cm and 10 cm deep?
- What would these look like if the energy was slightly increased?
- How is the beam energy monitored and how would you change it if it was off.

IMRT / VMAT –

- Talk about your VMAT project, why was the verification pass rate lower than expected?
- Why is the TPS less accurate for small fields?
- What extra factors do you need to consider when delivering IMRT, examiner was getting at extra QC of small fields and MU linearity / stability?

Brachytherapy –

- Define Points A and B in the Manchester system?
- What other organs would you need to report to the dose to?

**Moderator:**

- Why do we need a quality system and what sort of things should it include?
- What do you know about clinical governance?