

Discussion topics for Accelerators

Particles

Which kind of particles ? p, C, ... C11 ... treatment+online imaging ?

Range

Need for radiography ? All particles ?

Dose rate → treatment time

Dose rate limits only technology or also radiobiology ?

Scanning vs scattering (→ beam monitoring is an issue)

Scattering is still of interest ? For limited sites, which ones ?

Scanning: spot size, repainting ...

Field size (→ beamline design, gantry)

Different for fixed beam lines and gantry ?

Combined use of accelerators

Production of radioisotopes ? Research beamline ? Industry, microbeam ...

Multi-room or single room ?

If multi then fast switching → patient throughput

Design driving criteria

Safety, Compactness (cost, power, dimensions), Efficiency, Reliability and Maintainability