

Errors – Why They Occur, How to Minimize Them is a 2-day symposium focused on quality of treatment in medical physics and the challenges associated with actual clinical operations. Three presentations will be given on each day of the symposium. This abstract describes the Day 1 presentations.

The first presentation in this session provides an overview of the 2-day symposium. It includes a summary of Failure Modes and Effects Analysis as well as other process oriented quality tools. The second presentation will examine potential errors in terms of scenarios, pathways of occurrence, and dosimetry. The goal is to prioritize error prevention according to likelihood of events and their dosimetric impact. The identification and prioritization of potential errors according to frequency and dosimetric impact will be discussed. As record and verify systems become more automated; more accurate and efficient data transfer will occur, hopefully reducing paths of certain errors, but potentially introducing new paths if systematic checks are not introduced. The final presentation in this session will be in the form of a case study of three incidents: Glasgow, Epinal, and another centre. Each incident will be described. The quality of the investigations following each incident will be discussed. Finally, the major root causes will be elucidated along with the relevance of lessons learnt from each incident.

Presentation 1 *Introduction: why errors occur and methods to how them*

Presentation 2 *Pathways and dosimetric impact of errors in radiation oncology*

Presentation 3 *Case studies in radiotherapy errors*