

Radiation therapy is rapidly moving into the direction of image guidance, functional target volumes, hypofractionation, dose escalation and 4D deliveries. In this era of joint imaging-therapy developments, accurate dosimetry techniques albeit often overlooked, increasingly require dealings with complex charged particle disequilibrium measurements and their interpretation. In this symposium, clinical dose measurements have been reviewed with emphasis on accuracy in these charged particle disequilibrium conditions. After a brief introduction and review of fundamentals of dosimetry, clinical accuracy requirements, four distinct areas of dosimetry in charged particle disequilibrium and their clinical relevance have been discussed. Guided by the main conclusions of the contributions in the four areas, moderated discussions will be conducted around clinical relevance of dosimetric accuracy in on non-equilibrium conditions, detector suitability, technical aspects and other areas of application.