

AbstractID: 7403 Title: Oversight Protocols in the Management of Network of Facility Sites

**Purpose:**

The management of quality for a network of facility sites poses challenges for an institution. Holding regular meetings, auditing treatment facilities, and requests for documentation are some mechanisms for providing clinical and quality overights. This presentation discusses our institution protocols in recent auditing of second dosimetric checks and request for RPC-TLD report for analysis.

**Methods and Materials:**

Our institution consists of an integrated network of 20 community (“spoke”) and academic facilities and spread about 150 miles radius from our downtown proper (“hub”). An average of 650 external beam patients are treated daily. With the diversity amongst the facilities, a common set of standards are essential to establishing quality across the facilities. This presentation examined two protocols for this purpose: auditing second dosimetric checks and request for RPC-TLD reports. The established protocol recommended second dosimetric checks be performed prior to the third fraction following the start of each new treatment field or field modification consistent with AAPM TG-40 recommendation. Ten patient treatment records were randomly selected for evaluation by six auditors quarterly. The second protocol requires all RPC-TLD reports be forwarded to the Office of Medical Physics for analysis and reporting annually.

**Results:**

Although the non-compliance for second dosimetric checks of patient treatment records was low, there was a trend towards non-compliance at selective facilities. RPC-TLD analysis showed a bell-shape curve with the median at 0.98 for the ratio of RPC measurement to institutional stated dose values. Facilities whose dose values are outside  $\pm 5\%$  have to repeat measurements.

**Conclusion:**

Quality oversight protocols are essential to set standards of performance for institutions having a network of facilities. Establishing oversight protocols will pose challenges for any institution and two examples are given in this presentation, where data are collected by different means.

**Conflict of Interest (only if applicable)**