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Chart Rounds in the Digital Age: A Survey of North American Institutions

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Chart Rounds in the Digital Age: A Survey of North American Institutions

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PURPOSE

Recent reports of medical errors in radiation treatment delivery have emphasized the importance of quality assurance (QA) practices. Strict guidelines exist for medical physics QA, but not for QA procedures as applied to clinicians. We sought to document how clinical quality assurance (QA) meetings or “chart rounds” are performed across academic North American Radiation Oncology departments.

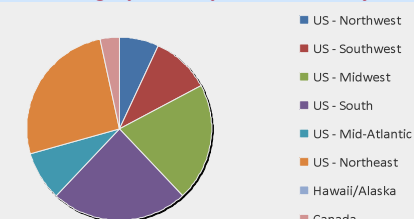
METHODS

We surveyed senior residents at academic institutions in US / Canada via an anonymous web-based survey. Questions addressed various aspects of clinical QA & departmental structure, such as patient throughput, the availability and evaluation of advanced technologies (reported as complexity score), and the frequency of treatment change recommendations made at QA conference.

RESULTS

59/91 (65%) of queried institutions responded.

Geographic Response to Survey

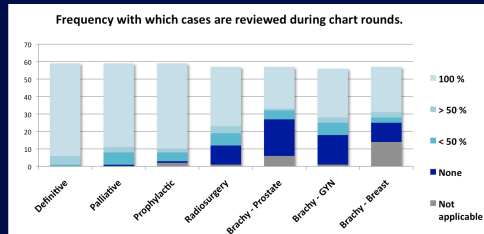


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RESULTS

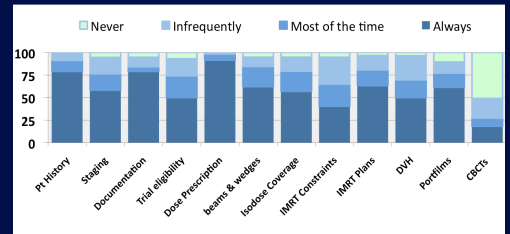
Treatment Modalities Reviewed

- Over 80% of institutions review all EBRT
- Rates are lower for other modalities:
 - SRS = 60%
 - Brachytherapy = 50%
 - 42% do not review prostate brachytherapy
 - 31% do not review gynecologic brachytherapy



Dosimetric Variables Considered

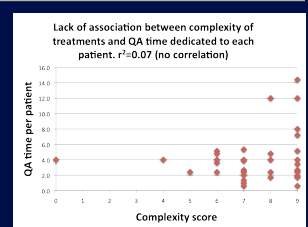
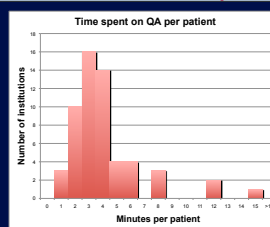
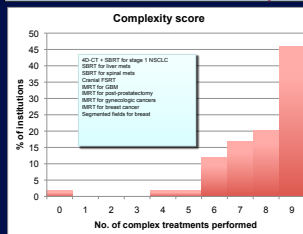
- Pt history & Rx were reviewed in >79% of institutions
- Finer details of dosimetry (beams, wedges), 62%
 - Isodose coverage, 59%
 - Dose-volume histograms, 50%
 - IMRT constraints, 40%
 - Conebeam images were never reviewed in 51%



Minor and Major Changes to Treatment Plans Based on QA Review

- Minor changes to a tx plan after chart rounds was defined as a small MLC change/re-port-film
- 65% of institutions report minor changes after chart-rounds in < 10% of treatment plans
 - 32% report minor changes to 10 - 30% of treatment plans
- Major changes were defined as a dose prescription change or a re-plan with dosimetry recommendation
- 75% of institutions report < 10% of treatment plans require a major alteration
 - 11% report major changes to 10 - 30% of treatment plans
 - 14% of institutions never make major treatment plan alterations, while 2% never make minor alterations

Complexity of Treatment and Time Spent Per Patient in QA



CONCLUSION

The practice of QA chart-rounds varies greatly across North American academic institutions. Surprisingly, despite the fact that chart rounds seldom review the full range of critical data available, changes are frequently made. Brachytherapy treatment plans and radiosurgical procedures are rarely reviewed. The potential effect of a more thorough QA review on patient outcomes is not known. The authors are currently drafting a guideline document.