

Less is More: Reducing Barriers to Care for RT

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Background

Daily radiation therapy (RT) for 5-8 weeks (=25-40+ treatments) can be a barrier to care for some patients. We are a rural cancer center where RT access is relevant, as we found in the Breaking Barriers project in 2023

Methods

We tracked patients for “no-shows” as part of the Breaking Barriers Quality Improvement study in 2023. We hypothesized the duration of treatments (measured by the absolute number of planned treatments) could be a barrier for some patients, and for certain sites being treated, especially when patients live rurally where access to care is limited. If we give less treatments at higher daily doses that are biologically equivalent (hypo-fractionation), we can minimize no-shows and increase compliance and timeliness to completion of RT (**less is more**)

Results

N = 12/99 (12%) of patients missed ≥ 3 appointments over a 1-year period at rural cancer center. This was 1.7 times higher than the national rate of 7.2%, and in top quartile for % no-show rates. 4% of patients did not complete the intended course of curative treatments in RT.

The median number of radiation treatments was 28 for the entire treated population, and trended higher for the patients with greater no-show rates (median = 33 fractions). Head and neck sites were also more commonly associated with no-shows due to higher level of care not available rurally. Overall, patients receiving hypo-fractionation (Less RT) were more likely to complete therapy in a timely fashion with less ‘no-shows’ (table 1) and enjoy more success with overall completion rates.



ConventRT	HypoRT	P value
N=11/71 (15%)	N=1/28 (3.5%)	0.05
N=4/71 (6%)	N=0/28 (0%)	N too small

Row 1: No-show rates (delays) by fractionation techniques
 ConventRT= conventional fractions RT (25-45 tx, 1.8-2Gy/d)
 HypoRT = hypo-fractionated fx RT (15-28 tx, >2Gy/d)

Row 2: Stoppage rates by same techniques in these patients

Conclusion- Less is More

Less treatments result in more compliance with RT care rurally. i.e. Less is More.

Where this model is feasible and established (e.g. breast), we have already noted trending improvements in other outcomes (higher BCT rates in our area over the last 2 years with less fractions of needed RT), and we hope to increase the use of these techniques to other sites as well (GI, prostate, skin, rectal, lung). We plan to measure the correlation with hypo-fractionation to breast care outcomes in 2024