



ClinicalPath

Radiation oncology hypofractionation

Preparing for changes in treatment and payment models



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Challenge

Hypofractionation has been shown to produce comparable outcomes to conventional regimens in prostate, bladder and breast cancers, among others; it also has been used in the treatment of bone metastases.^{i,ii,iii} Despite this evidence, hypofractionation remains underutilized in the United States as compared to other developed nations.

With the need to support physicians in making value-based treatment decisions that will benefit your patients, profitability will depend on predictability. The more consistent you become, the better value-based contracts you can negotiate with payers. Cancer centers will benefit from consistently adopting hypofractionation practices across clinical sites, where appropriate.

Opportunity

ClinicalPath pathways have been shown to be effective in enhancing adoption of changing practice patterns, standardizing care system-wide and helping institutions realize cost savings and optimize outcomes.

In radiation oncology, pathways have demonstrated measurable benefits, including:¹

- Workflow efficiency that allowed a large integrated cancer center to save over \$150,000 annually (see image above).^{iv,v}
- Increased adoption of hypofractionated whole-breast irradiation for patients under age 50 from 4% to 95% within one year.^{vi}
- Increased single-fraction utilization rates for bone metastases from 7% (in line with national rates) to 15% (see image below).^{vii}

Adoption of hypofractionated whole-breast irradiation for patients over age 70 following breast-conserving surgery increased by 20-fold. This resulted in an annual savings of \$154,000.

How ClinicalPath can help



For your providers:

- ClinicalPath radiation oncology pathways cover 97% of cancers,² providing guidance for simulation, contouring, planning and treatment delivery.
- Where clinically appropriate, hypofractionation recommendations are presented as the first on-pathway choice, accelerating adoption of evidence into clinical practice.
- Integration of pathways into your EHR and radiation oncology workflow tools streamlines the clinical workflow for your clinicians.



For your multidisciplinary team:

- ClinicalPath provides consistent guidance for medical and radiation modalities.
- Multidisciplinary pathways retain information entered by each team member to minimize duplicate data entry and support multimodal care coordination.



For your institution:

- ClinicalPath provides detailed analytics on patient presentation, radiation method, dosage and fractions delivered, and on-pathway rate, supporting your leadership team in the reporting requirements for quality programs and alternative payment models.
- Your leadership team can use these analytics to standardize practice variation across sites, optimize clinical review processes and achieve cost savings.
- ClinicalPath also provides detailed reports on accrual to clinical trials, which can be used to optimize your research portfolio.
- Using less fractions results in less total machine time per patient, freeing up your equipment to treat more patients.



Within a year, over 90% of courses were delivered with less than 10 fractions across both academic and community sites.



To learn more, visit
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Resources

- i. Cost-containment in hypofractionated radiation therapy: a literature review, *Journal of Medical Radiation Sciences*, March 13, 2018, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5985996/>
 - ii. When Less is More: The Rising Tide of Hypofractionation, *Clinical oncology (Royal College of Radiologists (Great Britain))*, May 2022, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8926304/>
 - iii. A practical approach to bladder preservation with hypofractionated radiotherapy for localised muscle-invasive bladder cancer, *Clinical and Translational Radiation Oncology*, August 19, 2021, <https://www.sciencedirect.com/science/article/pii/S2405630821000720>
 - iv. Clinical Pathways: A Catalyst for the Adoption of Hypofractionation for Early-Stage Breast Cancer, *International Journal of Radiation Oncology, Biology, Physics*, November 15, 2015, <https://pubmed.ncbi.nlm.nih.gov/26530754/>
 - v. Changing practice patterns for breast cancer radiation therapy with clinical pathways: An analysis of hypofractionation in a large, integrated cancer center network. *Practical Radiation Technology*, March-April, 2015, <https://pubmed.ncbi.nlm.nih.gov/25748004/>
 - vi. Lag Time Between Evidence and Guidelines: Can Clinical Pathways Bridge the Gap?, *Journal of Oncology Practice*, 2019, <https://ascopubs.org/doi/abs/10.1200/JOP.18.00430>
 - vii. Impact of dynamic changes to a bone metastases pathway in a large, integrated, National Cancer Institute-designated comprehensive cancer center network, *Practical Radiation Technology*, November-December 2015, <https://pubmed.ncbi.nlm.nih.gov/26432676/>
- 1 Illustrative case studies
- 2 Based on the SEER database of new cancer cases: <https://seer.cancer.gov/data/>

