

The standardization of skin cancer treatment recommendations through the analysis of clinical pathways data and an evidence-based, physician-driven committee process

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Background

Clinical pathways (CP) have the potential to improve the quality and safety of care and lead to more predictable outcomes and costs through standardization. Via Oncology's CP program aims to standardize care at radiation centers across its nationwide network. Created through an evidence-based, physician-driven committee process, CP recommend the best treatment plan for specific patient populations based on a hierarchy of efficacy, toxicity, and cost.

01 Efficacy	If there is a clear choice, this is the pathway
02 Toxicity	If efficacy is comparable, choose the treatment with less toxicities to improve QOL and reduce hospitalization/ED visits
03 Cost	ONLY if efficacy and toxicities are comparable, choose the lowest cost treatment to the payer/patient

In the absence of definitive data, reaching a consensus on the best treatment recommendation is difficult, particularly for disease states such as melanoma, squamous cell carcinoma, and basal cell carcinoma for which a wide range of radiation doses and schedules are considered effective and regional and institutional preferences may vary.

Developing Pathway Recommendations

Pathways are developed by committees comprised of physicians users following these guiding philosophies:

- 1 Standardization leads to better outcomes
- 2 Clinical pathways cover the common patient treatment scenarios but always okay to go Off
- 3 Clinically proven personalized medicine is always incorporated for actionable biomarkers
- 4 Clinical trials always come first and are On Pathway

Highest levels of evidence-based recommendations are always preferred but not required. The committee has the latitude to determine which data is pertinent to drive pathway content. In the absence of definitive data, a consensus approach is used in order to drive standardization. Pathway usage data is reviewed regularly and used to refine recommendations.

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Methods

After initial implementation of CP, radiation disease committees meet semiannually to review treatment recommendations and utilization data collected for the previous six months. Data reflect treatment plans selected by physicians for individual patients. At the January 2015 skin pathway committee meeting, committee members reviewed data for each patient presentation to determine which doses and schedules were used most frequently.

Results

After reviewing the utilization data, the committee narrowed the recommendations to one or two treatment plans per presentation, typically including standard and hypofractionated schedules. In scenarios where multiple treatment plans were selected at a similar frequency, the committee standardized to the lower dose and fewer fractionation plan. This reduced the number of treatment plans on the pathway from 34 to 15. A decrease in pathway adherence rates was not observed following this change.

Presentation	On-Pathway Decisions	Total Decisions	On-Pathway Rate
Squamous Cell; Primary Definitive RT	14	16	87.5%
Squamous Cell; Postoperative Radiation	14	14	100.0%
Basal Cell; Primary Definitive Radiation	14	14	100.0%
Basal Cell; Postoperative Radiation	6	6	100.0%
Melanoma; Primary Radiation; Medically Inoperable, KPS ≥ 70	4	5	80.0%

Conclusions

Data gathered from CP can be used to further standardize clinical care when there are several effective and accepted treatment regimens but a lack of published data. Through a dynamic process of assessing and modifying physician practice and patterns of care, CP provide cancer centers with a platform to ensure delivery of consistent, high-quality care to patients throughout their network.