

The benefits of clinical pathways (CP) for radiation oncology in a large cancer care network

Dwight E. Heron, MD, MBA, FACRO, FACR*, Sushil Beriwal MD*, Hans Benson MSPPM^, Amanda Barry MPH^, Kathleen Lokay^, Zach Lorinc^

Background

The cancer center implemented a radiation oncology CP program (now incorporated separately as Via Pathways) beginning in 2001 to standardize care throughout a network of radiation oncology sites. The program exists to ensure consistency and rapid adoption of best evidence-based care in a large, integrated NCI-designated comprehensive cancer center.

Methods

The web-based CP portal integrates with electronic medical records to provide point-of-care patient-specific decision support. The system sequentially displays possible treatment options as defined by the clinical pathway based upon the specific disease and stage entered by the physician, and the system then records the management decisions of the physician. CP content is developed and maintained by committees of both academic and community oncologists selected from the network. Meetings occur semi-annually to review and update treatment recommendations for the nearly 95% of cancers covered. All oncologists throughout the network are invited to participate through in-person meetings or via teleconference. Evidence is evaluated hierarchically on efficacy, toxicity, and then cost. When the committee modifies CP content, the software is updated within 35 days and new recommendations are available to the 37 network providers. Through analysis of the utilization data, leaders can monitor adherence to the CP recommendations and research practice patterns at an unprecedented level of granularity.

Why Cancer Centers Implement Via Pathways

Prove their quality and value to key stakeholders; stay in network; attract referrals



Prepare for and engage in new reimbursement strategies; provide better alternatives to payer driven programs



Ensure consistency of evidence based care among their physicians in an increasingly complex field



Promote accrual to clinical trials



Results

Since data collection in the portal began in 2009, the cancer center has captured over 59,000 visits. A total of 38,214 treatment decisions were entered, of which 37,146 (97.2%) were considered on-pathway. Off-pathway decisions were approved prior to treatment by a designated peer review radiation oncologist from within the network. Reasons for going off pathway and the alternative approach to care were recorded.

Decision Type	Number of Decisions	% of Total Decisions
Off-Pathway	1038	2.7%
Clinical Trial (On-Pathway)	918	2.4%
Off-Treatment (On-Pathway)	699	1.8%
Other On-Pathway	35559	93.0%
Total On-Pathway	37146	97.2%

Conclusions

CP are an integral tool for standardizing high-value care across large networks and geographic regions. The collaborative committee process, rapid electronic deployment, and easy access to evidence reviews have garnered high physician buy-in and consistent adherence to CP recommendations. Efforts to increase efficiencies and trial accruals have been successful due in large part to access to such a vast and comprehensive database. Other benefits of the program include: a transition from volume to value care models; facilitation of onboarding new physicians, residency trainees, and fellows; and providing transparency through peer review, a committee process, and evidence reviews. CP are now used by more than 1000 physicians across the US in a variety of academic and community settings.

Author Affiliations: *UPMC CancerCenter, ^Via Oncology