

## 2) Dana-Farber Pathways: Innovation in oncology care delivery

Dana-Farber Cancer Institute

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### PROJECT DESCRIPTION

As the complexity and cost of cancer care increases, there is an urgent need to support and track clinical decision-making, reduce unwarranted variation in patient care, and optimize resource utilization.

Through the development of evidence- and consensus-based disease specific dynamic clinical pathways (DCPs), our organization has been able to leverage the extraordinary depth of expertise of our clinicians and access to clinical trials into community-based clinical practice, where the majority of cancer care is delivered. Based on efficacy, toxicity, and cost, pathways define a single preferred treatment for a given cancer diagnosis.

DCPs are integrated care maps that improve quality by reducing variation in clinical decision making based on cancer diagnosis, line of therapy, patient demographics, and treatment site. This consensus driven, evidence-based approach supports the standardization of care, enables knowledge sharing, and permits the systematic management of our cancer patient population across our network of hospital satellites and physician practices. While the system fosters consistency in care delivery, it is also sufficiently flexible to allow clinicians to manage clinical nuances and provide personalized medicine to each patient.

Using an electronic platform, these DCPs provide decision support capability for local and network providers to enhance the predictability and quality of care provided to our patients. After providing disease and patient characteristics, DCPs first recommends all available clinical trials then defines a single preferred treatment for the individual patient. It is not expected for providers to choose the DCP 100% of the time. Selection of an off-pathway regimen within the DCP is warranted related to disease characteristics, comorbidities, and patient choice. If a provider does select to go off-pathway, they must document the reason (e.g. patient preference). The ability to learn from provider practice patterns and recently published literature permits the creation of a nimble and dynamic tool to support clinical care.

Each month, providers and disease programs are provided with data summarizing current usage of the system, variations in patterns of care among individuals as well as at sites of care. Through quarterly review, these data are then reviewed by a panel of experts in conjunction with the pathway. DCPs are revised and updated based on recently published literature, clinical expertise, practice patterns, and provider feedback. DCP structure incorporates the adoption of scientific advancements into practice rapidly, further fostering the academic collaborative nature of this program.

Through the framework of a Plan-Do-Study-Act (PDSA) model, we expect DCPs to enhance patient care, but more importantly to foster educational collaboration, permitting disease centers to manage populations, as well as enhance visibility and access to clinical trials.

### OUTCOMES ACHIEVED

- Customized DCPs developed in 8 common cancer types across 4 disease centers
- Implemented in both the academic and community clinical setting
- Cumulative on-pathway rate of 75%, which falls in the expected target range of 70-80%
- DCPs account for 3,769 treatment decisions

### LESSONS LEARNED

- Clinicians are willing to use a DCP program, and 87% of network providers deem DCPs to be value added and time saving
- We have seen wide variation in pathways adherence by clinician, location and disease type
- Exploration of practice variation is a potentially powerful tool to engage clinicians in discussion of routine practice