## Development by a Large Integrated Health Care System of an Objective Methodology for Evaluation of Medical Oncology Service Sites

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Aurora Health Care, Milwaukee, WI; and West Michigan Cancer Center, Kalamazoo, MI Purpose: Aurora Health Care (AHC) is the largest health care system in Wisconsin, with 14 acute care hospitals. In early 2010, a group of 18 medical oncologists became affiliated with AHC. This affiliation added 13 medical oncology infusion clinics to our existing 12 sites. In the era of health care reform and declining reimbursement, we need an objective method and criteria to evaluate our 25 outpatient medical oncology sites. We developed financial, clinical, and strategic tools for the evaluation and management of our cancer subservice lines and outpatient sites. The key to our success has been the direct involvement of stakeholders with a vested interest in the services in the selection of the criteria and evaluation process.

**Methods:** We developed our objective metrics for evaluation based on strategic, financial, operational, and patient experience criteria. Strategic criteria included: population trends, full-time equivalent (FTE) medical oncologists/primary care physicians, FTE radiation oncologists, FTE oncologic surgeons, new annual cases of patients with cancer, and market share trends. Financial criteria per site included: physician work relative value units, staff FTE by type, staff salaries, and profit and loss. Operational criteria included: facility by type (clinic *v* hospital based), hours of operation, and facility detail (eg, No. of chairs, No. of procedure and examination rooms, square footage). Patient experience criteria included: nursing model primary/nurse navigators, multidisciplinary support at site, Press Ganey (South Bend, IN; health care performance improvement company) results, and employee engagement score.

Results: The outcome of our data analysis has resulted in the development of recommendations for AHC senior leadership and geographic market leadership to consider the consolidation of four sites (phase one, four sites; phase two, two sites) and priority strategic sites to address capacity issues that limit growth. The recommendations if implemented would result in significant cost savings, currently being quantified as a result of consolidation and improved efficiency. A reinvestment of these cost savings would be required to address facility expansion and program enhancement to maximize patient-centered expert care consistently across all of our remaining sites of service.

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## Countering the Misincentivization of Cancer Medicine by Real-Time Personal Professional Education

By William Hrushesky, MD, Akhil Kumar, MD, Sharon Davis, MPH, and Marc Fishman, MD

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Purpose: In the United States, public and private payer misincentivization of medical care and the invisibility of costs to the consumers of that care have conspired to create unsustainable growth in health care expenditure that undermines our economy, diminishes our productivity, and limits our international competitiveness. Cancer medicine provides a small yet salient example. On average, Medicare reimburses oncologists 6% above the average acquisition price for essential anticancer agents and supportive therapies. The costs of these agents vary across a stunning five orders of magnitude, from a few dollars to more than \$400,000 per course of treatment. The profitability to providers varies across approximately four orders of magnitude, from cents to thousands of dollars per treatment. National guidelines (National Comprehensive Cancer Network [NCCN], American Society of Clinical Oncology [ASCO]) help providers select the most effective therapies without regard for cost.

**Methods:** We created an oncologist-to-oncologist professional education program to help cancer physicians optimally use expensive long-acting white

blood cell growth factors, in accordance with these national guidelines. We then compared their use across a population of approximately 97,000 Medicare members before and after our intervention. Baseline use was recorded over two consecutive quarters (2009 to 2010). In March 2010, our oncologists initiated real-time discussions with the oncologists of 22 separate groups if these agents were ordered for use with regimens that placed patients at less than 10% risk of febrile neutropenia, according to NCCN guidelines. Neither NCCN nor ASCO recommend the routine use of these agents in this low-risk group. The care of 82 such patients was thoroughly discussed in the following 6 months.

**Results:** The monthly costs for these agents decreased by more than 50% by the final month of our intervention, although savings began immediately, reducing costs by more than \$150,000 per quarter. No episode of febrile neutropenia was recorded in any patient in the intervention group. These savings generalize to the entire Medicare population at \$30 million each month.

**Conclusion:** We conclude that personal, oncologist-to-oncologist, real-time professional education will favorably modify oncologic prescribing behavior and can do so with significant immediate savings at no risk to patients with cancer.

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## **Achieving Meaningful Use and Operational Efficiency**

By Mithi Govil, MD, MS, Carla Wood, and Thomas R. Barr, MBA

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Purpose: The Centers for Medicare and Medicaid Services (CMS), through the Electronic Health Record (EHR) Incentive Program, are providing incentive payments to eligible professionals as they demonstrate meaningful use of certified EHR technology. Eligible professionals can receive up to \$44,000 over a 5-year period for Medicare participation if they successfully demonstrate the ability to automatically generate, transmit, and meet thresholds for specific reporting elements from the EHR. Meeting the meaningful use requirement involves a reorganization of workflow within the clinical setting so that the data elements necessary to produce the relevant measurements are documented in the electronic medical record (EMR) as they are delivered. A by-product of this is operational efficiency improvement in three areas: coordination of data input throughout the care team to reduce or remove bottlenecks, assignment of responsibility for specific activity, and real-time objective monitoring of the work process.

**Methods:** Using the reporting system functionality of a certified EMR deployed in a two-physician medical oncology practice at the New London Cancer Center, the objective measurement of the ability of each of the eligible providers in the clinic to improve their individual MU scores was tracked. Analysis of the progress of each provider revealed gaps. Process issues were identified by work group: secretaries, laboratory preparation and phlebotomy staff, nurses, and clinicians. The designated physician leader met with each group to discuss the sections relevant to that particular group.

**Results:** By discovering and addressing work processes that were not utilizing the ability of the EHR to capture and document (ie, meaningful use of the EHR), rapid progress that affected all of the eligible providers and all patients cared for was made. Changes resulted in increased clarity of clinical and administrative responsibilities during patient processing and clinical care provision. Meaningful use attestation was completed in 14 weeks.

**Conclusion:** Completion of the documentation necessary to meet the requirements of the EHR Incentive Program led to the discovery of systemic inefficiencies in administrative and clinical workflows. Addressing these bottlenecks, along with using the reporting capability of the EHR to measure the impact of workflow changes, enabled the administrative and care teams to make changes quickly and effectively. The certified EHR provided guidance and status-reporting capabilities that allowed the practice to achieve the meaningful use requirement.

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