Reducing Missed Diagnoses

**Atrius Health**

In late 2016, Atrius Health launched a two-year, grant-funded project to support front-line clinicians by proactively intervening to prevent missed or delayed diagnoses of cancer.

To prevent these, Atrius Health needed to identify patients in high risk clinical situations to prevent a missed or delayed diagnosis of cancer. Project leaders hope to reduce delayed diagnoses of three cancer types using three separate tools:

- **Screening for colorectal cancer.** This program increases the colonoscopy rate for patients who present to their primary care physician with a diagnosis of rectal bleeding or new onset iron deficiency anemia who are not current with recommended screening.

- **Conversations for prostate cancer.** Here the focus is on increasing shared decision-making between physicians and patients who have had elevated PSA tests. Atrius Health's leadership knew that encouraging discussions between patients and their physicians to determine the best course of action could significantly improve outcomes.

- **Analytics for lung cancer.** Atrius’ Safety Net Team is partnering with radiologists and pulmonologists to increase the reliability of identifying and following incidentally discovered pulmonary nodules on CT imaging. In addition, the group is developing tools utilizing NLP (Natural Language Processing) to more consistently identify these incidental findings.

The success of these programs relies on action by the primary care physician, a population that Atrius Health recognizes as already overburdened. For this reason, program leaders declined to create automated EMR prompts that might be ignored by the physician. Instead, they communicate using direct staff messages to the PCP via the electronic health record. The PCP then directs their care team to conduct outreach or utilizes the Safety Net Team to work with patients. Outcomes data will be available in 2018.
Supporting Patients Through the Entire Journey

Billings Clinic

At Billings Clinic Cancer Center, team-based care includes not just a team of physicians, oncology nurses, research nurses and patient care navigators, but an extended team of professionals who help cancer patients with every aspect of their journey from diagnostic testing, surgery, and oncology treatments to pain management and rehabilitation.

For example, social workers provide professional counseling services, conduct mental health assessments and refer patients to wellness programs. These professionals provide emotional support, information regarding community resources and assist patients with practical needs.

Billings Clinic includes dietitians on their care teams, who provide patients with evidence-based nutrition education and promote healthy eating habits. Data have proven that nutritional interventions undertaken before and after cancer surgery can reduce hospital length of stay, improve healing, and decrease wound-related complications.

Billings also employs genetic counselors to identify individuals and families at increased risk of cancer to promote awareness, early detection, and cancer prevention. Genetic counseling referrals are most commonly recommended for patients with breast, ovarian, and endometrial cancers diagnosed at a young age, as well as those with colorectal cancers diagnosed under the age of 50. Billings Clinic increasingly offers genetic counseling and other oncology services via telemedicine visits, increasing access throughout its vast geographic region.
Complete Coordination of All Cancer Care

Henry Ford Health System

Henry Ford Health System (HFHS) systematically screens and then coordinates cancer care from the point of diagnosis through treatment and survivorship.

HFHS conducts free screening events each year for a range of cancer types in community settings, such as shopping malls and farmer’s markets. Depending on the clinical details of the screening, patients with abnormal results can make an appointment on-site after the screening to see a HFHS cancer specialist. These events allow the system to reach patients outside their medical center walls.

HFHS also has a large network of community physicians throughout Michigan who refer patients into the health system for treatment. In many cases, telemedicine is used to connect patients and their local physicians from communities around the state with HFHS cancer experts. Utilizing this technology allows patients to receive much of their follow-up care close to home, reducing the stress on the patient. HFHS physician leaders believe that cultivating strong relationships with community providers has created a high level of confidence and trust in HFHS when referring their patients to the system.

As soon as patients start cancer treatment at HFHS, they are assigned a nurse navigator, who makes all the patient’s appointments and serves as a primary source of educational and emotional support throughout the cancer journey.

Cancer cases are reviewed by HFHS internal tumor boards, where as many as 15 fellowship-trained physicians and specialists from a broad range of areas gather to determine the best care plan for each patient. HFHS’s growing use of precision medicine means that the patient’s own DNA is often used to inform their treatment.
Matching the Care to the Patient

Geisinger Health System

Geisinger Health System is one of four regional referral centers in Pennsylvania with a specialization in pediatric diseases. Geisinger’s Janet Weis Children’s Hospital has long been recognized as a national leader in pediatric healthcare. It is the first rural acute-care children’s hospital in the country and one of the first rural academic facilities in the region, making it a unique facility specially designed to meet the challenges of providing health care to children living in rural areas. A number of health system elements improve care for pediatric cancer patients.

Geisinger leaders focus on communication between physicians. Care details are shared using the system’s comprehensive electronic health records (EHR), but doctors also say they regularly pick up the phone to talk about complex cases and participate in multidisciplinary tumor boards. They also emphasize that being in an integrated system allows physicians to ask the right questions to minimize overtreatment or inappropriate treatment.

For pediatric patients, Geisinger stresses the importance of treatment that is rapid—as pediatric cancers are often aggressive—and compassionate—as cancer in a child comes with psychological consequences for patients and caregivers. Being a national destination for children’s care means not only leading the way in addressing pediatric health issues, but also understanding the particular needs of a young patient and their family members.

Because many Geisinger patients come from rural areas, leaders know that patients travel long distances, making the coordination of information and logistics critical. To minimize travel time, cost and disruptions to patients, Geisinger care teams schedule as many appointments as possible on the same day and allow patients to receive testing at satellite centers closer to their homes throughout the state, since the physicians can see the results in their EHR. The system also encourages patients and their families to interview and select their cancer specialist and surgeon.
Patient Safety and Comfort First

HealthPartners

The care teams and clinical leaders at HealthPartners go above and beyond to make the cancer care experience both manageable and safe for the patient. The system's dominant philosophy is to treat patients using "Head + Heart, Together." Its culture and commitment to safety and comfort is exhibited through seemingly simple decisions like the design of the lobbies to more controversial areas like prescription drugs. For example, every patient is greeted warmly at the entrance to the cancer center, and in its breast health centers, spa-style robes offer patients some comfort during difficult exams.

An example of the system’s clinical quality improvement efforts can be seen in its response to the opioid epidemic. HealthPartners physicians recognized the critical clinical role opioids can play in end-of-life care, but were cautious of the increasingly apparent risks of over-prescribing. So, the cancer team adopted a new pain management procedure. The team uses a questionnaire to break down each patient’s pain level. With that information, physicians build an individualized pain management plan, which often lessens the need for the powerful drugs. Finding the right drug regimen for patients also lowers costs and alleviates red tape for nurses, who can instead spend that time caring for patients.

Cancer centers within the HealthPartners system co-locate all the services, so rather than traveling all over a city or region after a diagnosis, patients return to one building for their treatment and follow-up appointments. HealthPartners’ ability to make things safe and convenient for the patient stems from their integrated model, serving as not only a care provider, but also an insurance provider. HealthPartners' leaders stress that this integration of care allows the system to focus on cost, quality and the patient experience to achieve the Triple Aim.
Screening the Reluctant Patient

**Austin Regional Clinic**

At Austin Regional Clinic (ARC), physicians understand that some patients do not seek screenings due to apprehensions about discomfort, fear of diagnosis or inconvenience to daily life. ARC provides care in a marketplace that is still heavily fee-for-service, which makes it difficult for the group to provide wellness and preventive care that is not reimbursed. Therefore, ARC has developed innovative ways to encourage the reluctant patient to engage in cancer screening.

For example, ARC physicians wanted to get more of their patients screened for colon cancer. Colonoscopies are often viewed as invasive and uncomfortable, however, colon cancer has a high survival rate when detected early. ARC now works with a diagnostic company to send colon cancer screening kits by mail. ARC’s Population Health Department saw a clear value to proactively screen for colon cancer using the ColoGuard(R) fecal occult blood test (FOBT) home testing kit, which has a 90 percent accuracy rate for detecting abnormalities.

Using data from the medical group’s data warehouse, ARC primary care physicians can see which of their patients needs a screening, and order the kits directly from their EMR. The kits are sent to patients by the diagnostic company. If the kit returns an abnormality, patients are contacted directly by an ARC nurse to schedule an appointment for their colonoscopy. These kits have a return rate that is more than double traditional colon cancer screening kits, meaning 1,000 ARC patients get screened.

This program has been successful because it has been encouraged organization-wide, and does not place an additional burden on the primary care physician since tracking and follow-up is provided by the Population Health Department. The kit is sent to all patients insured under Medicare, Medicare Advantage or other value-based contracts, and some additional patients. This has been embraced most enthusiastically by physicians who treat patients in minority communities that experience higher rates of colon cancer. To further support this population, ARC provides financial counselors to help patients understand the cost of any additional screening or procedures.
Leveraging the Power of Integrated, Evidence-Based Care

Southern California Permanente Medical Group

The Southern California Permanente Medical Group (SCPMG) recognizes that many cancers occur without obvious initial symptoms and could be curable if caught early. Harnessing the power of an integrated healthcare delivery system, which enables high degrees of collaboration and data sharing between physicians, SCPMG is helping to advance the field of cancer. By reengineering its processes in screening, detection and treatment, and by reducing the time between various stages, such as between surgery and chemotherapy, SCPMG achieved significant improvements in patient outcomes and is on track to reduce colon cancer mortality by 50 percent in 10 years.

SCPMG leaders say that setting ambitious goals sends a message to patients, employees and the public that they are focused on helping their patients get healthier, live longer, and achieve a higher quality of life. Additionally SCPMG’s work shows that system-level improvements can improve outcomes and reduce mortality.

A cornerstone of achieving this goal is SCPMG’s proactive approach to identifying care gaps. Recognizing the link between early detection and screening and improved outcomes for colon cancer, SCPMG began mailing Fecal Immunochemical Test (FIT) kits to patients’ homes if they were due to be screened based on age, family history or previously documented conditions. Because of SCPMG’s size, the medical group sends hundreds of thousands of kits per year. When tests return positive, SCPMG care coordinators reach out to patients directly to schedule additional testing, rather than leaving voicemails or sending letters with instructions to prompt the patient to act. Coordinators also reach out to patients who don’t return their mailed tests; they attempt to make up to three contacts to encourage patients to return their tests.

The program is working. More of the eligible population is screened than ever. Ten years ago, SCPMG only screened approximately 45 percent of its eligible population, which was about the national average. Today the group screens just under 90 percent of that population.
A Culture of Yes

Marshfield Clinic

The Marshfield Clinic operates in a “culture of yes” that allows their entire care team to respond quickly and decisively whenever patients are in need.

Marshfield leaders say that in health care—particularly in rural areas—there’s always a reason for inaction. Because success in cancer care requires quick action, Marshfield has taken steps to overcome that tendency. While competitors send lab and radiology results for processing in other states, for example, Marshfield does everything on site. Marshfield has over 190 clinical trials open or in use, and they run virtual tumor boards to connect their physicians throughout the state. They offer extensive patient navigation resources, and a 24/7 oncology nurse triage line to support patients any time they need care.

Additionally, at Marshfield’s new cancer centers, consultation rooms were redesigned to look like living rooms, so the entire family can be comfortable learning about a loved one’s disease.

Saying “yes” works. For example, Marshfield recently cared for an elderly man who was being treated for cancer of the esophagus. During one appointment, the physician noticed a lump on his wife’s neck, which she admitted she was aware of, but had put off thinking about during her husband’s treatment. Rather than ignore the caregiver, physicians, nurses, appointment coordinators, medical assistants and others took action. With fifteen days, the wife was diagnosed with lymphoma and scheduled for surgery. Husband and wife were treated simultaneously and successfully.
Matching Genetic Tests to Patients Through Precision Medicine

Sharp Rees-Stealy Medical Group

To match the best care to each patient, Sharp Rees-Stealy Medical Group (SRS) developed a pathway to determine the most appropriate genetic tests based on an individual's medical and family history.

With the ongoing discovery of new technology and the rapid advancements in genetics, the science of genetic testing is growing rapidly. New tests are being introduced frequently and more quickly than traditional medical group quality management processes can handle. Sharp Rees-Stealy's primary care physicians were inundated with the quantity of genetic tests available. In addition, patients were hearing about new tests from family, friends and the media, and were visiting their doctors asking to be tested. Leaders recognized the need for a formal process.

Sharp Rees-Stealy developed a genetic counseling pathway that would match patients to testing based on evidence-based guidelines. A multidisciplinary team of oncologists, case managers, utilization management experts, genetic counselors, primary care doctors, laboratory staff and other clinical staff determined a process to streamline who gets genetic counseling, how to pick the right test, and how to have it completed quickly.

The process begins when a primary care physician identifies a patient who may benefit from genetic testing based on family and medical history. The patient's profile then goes to oncology services, followed by a review by a genetic counselor for cases, which is triggered by the tool developed by the team. For patients who don't have a profile that warrants testing, physicians can still review the patient’s profile, ensuring that no patients are overlooked.

The referrals are held in a centralized place in Sharp Rees-Stealy's EMR, which also contains a screening tool to determine if patients are eligible for testing. Primary care physicians and patients have responded positively to this program. Even patients who are not candidates for testing benefit from this program as the process offers an opportunity for elevated patient-physician communication.