

The Care Management Institute: Harvesting Innovation, Maximizing Transfer

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With the goal of “making the right thing easier,” the Care Management Institute (CMI) is a central hub where evidence-based guidelines, innovative population care management programs, and rigorous common measurement systems are created for an identified set of priority conditions. Implementation of guidelines and programs is local, allowing regions to maximize impact by leveraging products, tools, services, and new technologies in ways that best suit their operational structures.

CMI harvests the experiences of regions to refine and extend programs, cycling the next level of innovation back to clinicians in the field. This model of distributed learning underlies all Kaiser Permanente (KP) population care management activities, maximizing innovation efficiency, supporting “grassroots” program improvements, and empowering clinicians in population care management strategies.

CMI also champions efficiency. “In the past, one quality improvement approach was to solve every problem by innovating a new solution. However, innovation has a time cost, and responsible resource stewardship demands that we focus innovation on cutting edge issues that have yet to be addressed,” says Paul Wallace, MD, CMI Executive Director.

From its inception, CMI recognized the importance of collaborating with clinicians in all aspects of program development, implementation, and measurement, building structured relationships between CMI at the national level and regional teams of clinicians, implementation specialists, and analysts.

The following programs are illustrative of CMI’s approach to innovation and transfer.

ALL for Reducing Risk

In July 2002, studies had already proven three types of medications— aspirin, angiotension-converting enzyme

inhibitors (lisinopril), and blood cholesterol-lowering statins (lovastatin) (ALL)—are independently capable of decreasing the risk of heart attack in individuals with diabetes or coronary artery disease.^{1,2} KP’s powerful biomathematical modeling program, Archimedes, then examined the effect of combining them. The results were impressive: the risk of heart attack and death would be immediately reduced by at least 71% for 650,000 KP members.

Jim Dudl, MD, (SCPMG) endocrinologist and clinical lead for the CMI diabetes workgroup, was a key force in initiating the Archimedes modeling and presenting the results to the CMI Board of Directors. As a result, clinical guidelines for the treatment of members with coronary artery disease (CAD) and diabetes mellitus (DM) were revised to include recommendations for treatment with ALL medications unless contraindicated or not tolerated.

To rapidly implement these life-saving recommendations, the ALL initiative was formed with Dr Dudl as clinical lead. “It’s incredibly difficult to start these three medications in a population. Models of care help clinicians understand how to implement the initiative,” he comments.

Regional programs reflect a variety of strategies for starting members at risk on ALL. “The regions are doing groundbreaking, innovative work,” says Michelle Wong. New programs include mailed prescriptions, group visits, phone calls from pharmacists, electronic reminders for physicians, panel management tools and assistants, and getting the entire health care team involved. CMI provides quarterly ALL reports, allowing regions to evaluate their performance and identify successful strategies in other regions they can adopt.

In the fourth quarter of 2004, slightly fewer than 75% of all members with coronary artery disease were tak-

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ing statins, up from 67% in 2001. Nearly 56% were taking an angiotension-converting enzyme inhibitor (ACE-I), up from 47% in 2001. Among members over the age of 18 with diabetes, 55% were taking statins, compared to fewer than 38% in 2001, and 59% were taking an ACE-I, up from 51% in 2001.

Getting Chronic Pain Under Control

Members with chronic pain represent 5.1% of the total membership, second only in prevalence to diabetes. This population can challenge primary care physicians for several reasons.

Functional impairment is frequent and marked. In a KP health-related quality of life study, individuals with chronic pain reported the most functional impairment and lowest quality of life of all chronic conditions; those who were employed missed an average of more than three days of work each month.

Utilization is high. Use of inpatient, outpatient, Emergency Department, and pharmacy services by members with chronic pain are all three to four times higher than for members of the same age and gender without it. And, until recently, information about effective management of chronic pain has often been hard for primary care providers to find.

Under the clinical leadership of Christine Whitten, MD, anesthesiologist and Clinical Coordinator for Pain Management (SCPMG), the chronic pain initiative focuses on improving health outcomes for KP members who live with discomfort. "Chronic pain results from nervous system changes after unrelieved intense or prolonged acute pain. A continuum of risk exists for chronic pain, with interventions at each level of risk that treat the patient and reduce the risk of progression to the next level," says Dr Whitten.

The benefits of more effectively managing chronic pain patients convinced CMI leadership the program was needed. A newly formed chronic pain workgroup moved quickly to identify champions at medical centers and create the fundamentals of the care management program, which relies on primary care providers to assess, treat, and refer members at risk for and suffering from chronic pain.

"We view ourselves as support for primary care providers," says Dr Whitten. Drawing on work from the regions, including Northwest Permanente, The Permanente Medical Group, and Southern California Permanente Medical Group, the workgroup created pain management guidelines and developed a model of care including primary and specialty

care. "Chronic pain is now an active issue in different phases of development in all regions," says Kristene Cristobal.

For the first time, key process measures were developed for pain management. By looking at patterns of medication management, utilization, and costs of care, regions can compare the effectiveness of their programs against KP national benchmarks. Between 2001 and 2003, medication management patterns for members with chronic pain shifted toward alignment with clinical guidelines. Programwide, the percentage of members receiving long-acting opioid formulations, adjuvant therapy for neuropathic pain, and tricyclic antidepressants for neuropathic pain (among those receiving adjuvant therapy) all increased. The percentage of members receiving skeletal muscle relaxants or anticonvulsant therapy for non-neuropathic pain decreased.

Primary and specialty care visits for chronic pain decreased between 2001 and 2003. Behavioral health visits increased. The percentage of members with chronic pain who made 20 or more visits per year decreased, as did the percentage of members with chronic pain undergoing invasive procedures.

Hospital admissions decreased, but the average length of stay (ALOS) increased significantly for chronic pain-related stays. Emergency Department visits also increased. Costs attributable to the increased ALOS offset cost savings from decreased outpatient and pharmacy utilization, raising the overall costs of caring for this population. Further study is needed to understand the cause of the increased length of stay and possible improvement opportunities.

In 2005, the chronic pain workgroup is supporting rapid cycle improvement projects in three areas: medication management, utilization, and clinician-to-clinician communication. Four to eight projects in each of these areas will generate new information about how best to manage chronic pain and help KP members thrive.

Spreading High Performance Around

A recent CMI research project examined consistent differences between regional performance on outcomes measures for diabetes care. The goal of the Improving Performance Project was to identify statistically significant links between care practices and better regional performance. "Only a few organizations attempt to connect population care management practices with clinical performance," says Beth Branthaver.

The project gathered data on 20 diabetes care prac-

tices and eight outcome measures from 42 locations representing the entire program.

Care practices in the organizational category included such factors as:

- program leadership
- accountability
- resources
- evaluation.

Patient self-management support practices included:

- action plans
- patient education
- integration of self-management into routine care.

Delivery system design included such practices as:

- identifying and stratifying populations according to risk
- reaching out to bring patients in for care
- coordinating care across multiple providers
- providing care that is sensitive to cultural variations.

The final category of **care practices, decision support**, examined:

- clinical practice guidelines distribution and training
- the use of alerts to remind providers about needed care or patient data
- the presence or absence of an electronic health record.

Clinical performance indicators assessed were:

- glycemic screening

- glycemic control
- eye exam
- lipid screening
- lipid control
- microalbumin screening
- ACE-I use
- inpatient admissions.

Five care practices were most closely associated with better performance: electronic health records, assessing patient needs and incorporating them into personalized action plans, patient disease registries, and reaching out to patients to bring them in for care and to follow up afterward. With the advent of KP HealthConnect, CMI has focused on the latter three, helping regions to understand their key elements and to put them into place. ❖

References

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Pessimist-Optimist

To the question whether I am a pessimist or an optimist,
I answer that my knowledge is pessimistic, but my
willing and hoping are optimistic.

—Albert Schweitzer, MD, philosopher, physician, musician,
Nobel laureate (1875-1965)