Controlling Cancer-Related Costs in Your Population
Program Overview

Recognizing the uniqueness of each individual and his/her care management needs, KEPRO Oncology Management applies theory-driven research and evidence-based tools and interventions to ensure that cancer patients successfully achieve optimal health outcomes. Members who engage in our program are partnered with an experienced registered nurse case manager who coordinates and monitors best-practice care guidelines, quality of care processes, and adherence to treatment plans to ensure efficient utilization of health care services. We also recognize the invaluable role of family/caregiver support in effective care and positive health outcomes, so care managers also partner with the members’ loved ones to optimize care management success. KEPRO’s care management approach aims to be profitable for both the member and payor by working to improve self-care, quality of life, and cost savings across the entire continuum of cancer care needs.

For more than a quarter of a century, KEPRO has assessed health care and provided innovative, outcomes-focused solutions for health plans, insurers, large employers, third party administrators, the Centers for Medicare & Medicaid Services, TRICARE, and other federal and state agencies. We are owned by the Pennsylvania Medical Society, a non-profit corporation governed by 17,000 physician members. As such, we are physician directed and driven to offer a unique approach that effectively supports the physician-patient-care team partnership through communication, education, and empowerment.

We provide a premier, differentiated oncology care management program that is clinically driven, client focused, and value based.

The Cost of Cancer

The total cost of cancer care in year 2020 is projected to be $173 billion, representing a 39 percent increase from 2010\(^1\). The incidence of cancer is highest in the elderly; with the aging population, this trend is expected to continue. United States population projections indicate that by 2030, the aged population (65 years or older) will represent 20 percent of the total population, compared to 12 percent in 2006\(^2\). Advancements in medical technology and targeted therapies have increased life expectancy; consequently, both the number of cancer survivors and cancer care expenditures will continue to increase.

With 27 years of experience as a Quality Improvement Organization and leader in care management, KEPRO understands that cancer care and recovery is an evolving process influenced not only by the complexity of each case, but also emerging scientific progress in treatment options and care protocols. Our expert oncology care management team remains steadfast in staying abreast of current best-practice guidelines and evidence-based medicine associated with each type of cancer diagnosis. By ensuring that each patient’s care is aligned with national quality of care benchmarks, our oncology case management program continues to deliver cost savings opportunities.
Member-Centric Approach

Personalized care begins with understanding the medical, behavioral, functional, cultural, educational, spiritual, and economic needs of each member, as well as family/caregiver preferences and concerns. Member engagement and partnership begin with a care call from the assigned case manager who assesses the scope and complexity of the member's case using standardized guidelines, proprietary tools, and compassionate open discussion. The oncology care team (medical director, nurse care manager, behavioral health case manager, or social worker) reviews the assessment findings and develops a focused care plan that targets care needs most amenable to intervention. This approach promotes positive clinical results and delivers the highest return on investment.

At KEPRO, we recognize that human behavior is dynamic. A member’s engagement and willingness to change are influenced by many factors such as disease severity and progression, new onset co-morbidity, perceived control, knowledge gaps, support, and logistical and financial challenges. Therefore, we routinely re-assess each member’s care plan and interventions to adjust for changes. We nurture behavior modification through continued care call engagement to help ensure that members successfully achieve their program goals.

KEPRO Oncology Case Management provides a system of clinically focused, collaborative, and coordinated care that empowers members and family/caregivers to make meaningful, educated decisions about treatment and self-care management, leading to improve health outcomes and quality of life.

Interventions

Interventions are focused and specifically designed to maximize each member’s quality of life, reduce/manage depression, and optimize pain management. Our interventions are also realistic, based on the physician’s prognosis and the desires of the member. Interventions also focus on the families and caregivers who also must deal with their own feelings/depression as they care for and support their loved ones.

Interventions include:

- Providing member and family education and support
- Assisting members with developing effective self-management plans
- Coordinating health care needs and services across the continuum
- Coordinating and facilitating use of community/employer services/resources
- Serving as an advocate to each member/family

<table>
<thead>
<tr>
<th>Cost in Billion US Dollars</th>
<th>2010</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>16.5</td>
<td>20.5</td>
</tr>
<tr>
<td>Prostate</td>
<td>11.8</td>
<td>16.3</td>
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Table 1: Gender and age distribution for one client’s population, 6/2011 - 8/2012

<table>
<thead>
<tr>
<th>Total Count</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Cases</td>
<td>24,766</td>
<td>52%</td>
</tr>
<tr>
<td>Average Age, Years</td>
<td>69.5</td>
<td>68.2</td>
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Clinical Care Domains:

- **Health Literacy**
- **Shared Decision Making**
- **Treatment Plan Compliance**
- **Pain & Symptom Management**
- **Safety**
- **Quality of Life & Behavioral Wellness**
- **Advanced Illness Planning**
- **Physician & Health Care Team Collaboration**
- Collaborating with each member’s physician/health care team
- Facilitating safe care and home environments
- Facilitating end of life planning.

Our Members

KEPRO was founded on the philosophy of ensuring that individuals get the care they need, when and where they need it. We have protected the rights and improved the health of more than 19 million individuals served by commercial and public programs since 1985. Our clients have included the Centers for Medicare & Medicaid Services, the Department of Defense, 10 Medicaid agencies, county governments, health plans, third party administrators, employers and Trust Funds.

As a Quality Improvement Organization (QIO) serving Medicare beneficiaries for more than a quarter century, we have demonstrated that working with both members and providers to build strong relationships and facilitate understanding greatly improves overall health. It also gives us a tremendous advantage when working with an aged population, who as stated previously, has the highest incidence of cancer.

Our comprehensive, member-centric solution takes into account that members facing cancer often have emotional issues and co-morbid conditions that must also be addressed to effectively treat the whole person. We help members understand their treatment plans, follow dietary recommendations and medication regimens, and keep follow-up appointments. We also involve family and caregivers, so that they can understand the member’s condition and wishes, as well as offer support and encouragement. This holistic approach reduces the costs associated with treating cancer and improves member health outcomes.

Predicting Risk

Early identification of members who may benefit from oncology management is critical to ensuring optimal health outcomes, and will provide a positive impact on health care costs. Our data analytic tools synthesize demographic data and laboratory data; medical, behavioral, and pharmaceutical claims; pre-defined oncology triggers; and health risk assessment responses. We also apply our trigger list, comprised of ICD-9 codes, to utilization management data to identify cases for oncology management.

Once we identify cases, we stratify them into risk levels. High risk members receive twice weekly intervention calls based upon their assessments and complexity of their conditions. Moderate risk members receive a weekly call; we then modify the frequency of calls as needed, but reach out at least monthly. We also call low risk members.

Our knowledgeable and compassionate case managers:

- Focus on decision support
- Reinforce education and coping mechanisms
- Introduce community support groups
- Provide care coordination services,

Member Satisfaction

“Vivika was a gem. She answered so many questions. She was so kind and caring. I know that I can call her any time and she will be there for me. I can’t say enough great things. You are the best!”

“It was helpful having someone that I could ask questions of. She cared very much about my progress.”

“It was great to have a knowledgeable outside party to discuss my care with.”
Savings Forecast

Cancer Facts

- Direct medical cost of cancer increased from $103.8 billion in 2007 to $124.6 billion in 2010\(^3\).
- If the total cost (direct and indirect expenditures) increases at a similar rate, then the projected total cost in 2020 could be as high as $452 billion.
- Average annual cancer cost per patient range from $14,000 with no surgery and no chemotherapy to $123,000 for patient receiving both surgery and chemotherapy, with overall average of $49,000\(^4\).

Oncology Case Management helped to improve:

- Cost savings resulting from reduced infection rates
- Improved nutritional status
- Improved medication compliance
- Improved treatment compliance
- Overall better health and wellness.

Patients receiving chemotherapy have four times greater costs than patients who do not; therefore:

- Adherence to chemotherapy treatment best practice guidelines could reduce costs by $3000 per case, representing about 3 percent of total cost\(^5\).

The projected savings for 1,000 case managed patients undergoing chemotherapy is $3,000,000.

Figure 1: Care management helps reduce health care services utilization\(^6\)


Infection Facts:

The mortality rate\textsuperscript{7} for:

- Solid tumors is 8.0 percent
- Lymphomas is 9.0 percent
- Leukemia is 14.3 percent.

Infection in cancer patients could increase mortality rate\textsuperscript{7} to (also see Figure 2):

- 39.2 percent with invasive Aspergillosis
- 33.9 percent with gram-negative sepsis
- 26.5 percent with pneumonia.

A recent study\textsuperscript{8} reported:

- A three-fold increase in mortality rate of cancer patients with invasive fungal infection (from 9 to 24 percent)
- Longer hospital length of stay (19.2 versus 6.8 days)
- $36,922 more in medical costs ($55,092 vs $18,170).

A European study\textsuperscript{9} reported much higher costs associated with invasive Aspergillosis (see Figure 3):

- Total costs were increased by 44 percent
- Medical costs were increased by 72 percent.

\textit{Figure 2: Increase in rates of mortality among cancer patients due to infections}
Poor nutritional status can lead to an increased risk of morbidity, reduced chemotherapy response, and shorter survival in patients with cancer.

Nutritional status is a strong predictor of quality of life in cancer patients.

1000 case managed patients with healthy nutritional status avoid costs associated with serious complications, resulting in projected savings of $5,126,000.

Nutritional Facts

- Disease-related malnutrition occurs frequently in patients with cancer and is a major cause of morbidity and mortality
- Malnutrition is highly prevalent among people with certain types of cancers and contributes to the human and economic costs of the disease.
- Prevalence can range from 9 percent in patients with urological cancer, to 46 percent in those with lung cancer, to 85 percent in patients with pancreatic cancer\textsuperscript{10}
- Weight loss in cancer patients is associated with several serious complications, including:
  - Increased toxicity of chemotherapy
  - Decreased response to therapy
  - Increased morbidity, including infections
  - Increased hospital length of stay (LOS)
  - Decreased quality of life
  - Increased mortality
- Implementation of the American Society of Parenteral and Enteral Nutrition (ASPEN) guidelines for oncology patients, including nutritional screening, nutritional assessment and intervention can help improve quality of life in cancer patients, and reduce cost associated with morbidities and mortality.

Table 2: Impact of malnutrition on all hospitalized patients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Normal</th>
<th>Decline</th>
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<tbody>
<tr>
<td>Care Cost, $\textsuperscript{11}$</td>
<td>$28,631$</td>
<td>$45,762$</td>
</tr>
<tr>
<td>Length of Stay, d\textsuperscript{11}</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>Complications, %\textsuperscript{11}</td>
<td>42</td>
<td>62</td>
</tr>
<tr>
<td>Sepsis Infection, %\textsuperscript{12}</td>
<td>1.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>
Medication Compliance Facts

Table 4: Impact of medication adherence on health care expenditures among cancer patients

<table>
<thead>
<tr>
<th>Adherence Rate, MPR*</th>
<th>Total Mean Health Care Cost, $</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 90</td>
<td>$28,768</td>
</tr>
<tr>
<td>70 - 90%</td>
<td>$47,680</td>
</tr>
<tr>
<td>&lt; 70%</td>
<td>$125,266</td>
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</table>

*Medication possession ratio

Summary

KEPRO’s oncology management program decreases treatment costs, improves overall health outcomes, and preserves each member’s dignity. All services are delivered using our proprietary medical management system, which creates comprehensive member profiles that allow us to trend aggregate population and member-specific outcomes data. This aggressive oncology management program will achieve greater cost savings for you.

We welcome the opportunity to further discuss how we can partner with you to manage the health of your population.

1.800.222.0771
KEPRO.com
Citations


