SPRING MANAGED CARE FORUM

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Interview with Center for Medicare and Medicaid Innovations (CMMI) Regarding the Oncology Care Model Pilot
Sheryl Riley, RN, OCN, CMCN

Summary

As one ages, the risk for contracting cancer increases. The majority of those with cancer are 65 or older, Medicare beneficiaries and may have additional complications making them candidates for care management. In light of this, the Centers for Medicare and Medicaid Services (CMS) has developed a new payment and service delivery model that will not only improve quality but will reduce the cost of specialty care, called the Oncology Care Model (OCM), which was launched in the Spring of 2016. A CMS spokesperson lends their insight into the program.

Key Points

- The Oncology Care Model (OCM) aligns financial incentives, including performance-based payments, to improve care coordination, appropriateness of care, and access for beneficiaries undergoing chemotherapy.
- CMS strongly believes that small investments in supportive care services can lead to large savings in patient care costs.
- Nurse navigation and care coordination can help patients and families better connect with and understand the various components of their multi-disciplinary care and can help improve quality and efficiency of care.

BACKGROUND

1.6 million is a staggering number. It is hard to fathom that is the number of people diagnosed with cancer per year. Cancer is one of the most devastating diseases in the United States today. Quite often cancer is a disease of age. According to Cancer Net statistics, one of the greatest risk factors for developing cancer is age and that 60% of the population that do have cancer are 65 years or older. In terms of healthcare this means that at least 60% of cancer patients and survivors are Medicare beneficiaries. In this population, 65 and older is typically associated with other comorbidities which in turn can lead to polypharmacy as well as a host of other physical and cognitive impairments that can affect the logistics of treatment.

Due to our aging population and the preponderance of cancer in that group, it is important that care management be rendered before, during and after treatment. Those over the age of 65 quite often require a greater number of resources, services and assistance. With all these factors in mind, CMS has developed a new payment and service delivery model that will not only improve quality but will reduce the cost of specialty care. CMS modelled their Oncology Care Model after the Comprehensive ESRD Care model which was launched last year to provide enhanced care beneficiaries with end-stage renal disease. The Oncology Care Model (OCM) is an innovative multi-payer model in which practices enter into payment arrangements that assess financial as well as performance accountability across an episode of care mostly in relation to the administration of chemotherapy to cancer patients. Ultimately the goal of the OCM is to provide higher quality with a greater emphasis on coordinated oncology care at a lower cost. OCM is a five-year model that was launched in the Spring of 2016.

Health and Human Services Sylvia M. Burwell is the impetus for this new program. She states that there should be a “Better, Smarter, Healthier approach to improving our nation’s health care, setting clear, measurable goals and a timeline to move the Medicare program—and the health care system at large—toward paying providers based on quality, rather than quantity of care they give patients.” The OCM was developed by the Center for Medicare and Medicaid Innovation (CMMI) or Innovation Center which was established by section 1115A of the Social Security Act, amendment to section 3021 of the Affordable Care Act. Congress created the Innovation Center to test innovative payment and service delivery models to reduce CMS program expenditures and improve quality of care administered to CMS beneficiaries.

The Model: OCM aligns financial incentives, including performance-based payments, to improve care coordination, appropriateness of care, and access for beneficiaries undergoing chemotherapy. CMS believes that this model will improve health outcomes, produce higher quality care, and lower costs. “Financial incentives for appropriate care should reduce health care expenditures as participating practices address the complex
care needs of the beneficiary population receiving chemotherapy treatment, increase their use of high value services, and decrease their use of unnecessary services."

As stated earlier, Cancer is a disease of age with 60% of the patients being over 65 and Medicare beneficiaries, therefore the CMS pilot will target beneficiaries receiving chemotherapy treatment. The program will parse treatment and services into 6 month episodes, which start with the patient receiving chemotherapy. In addition to the treatment participating OCM, practices must:

- Provide the core functions of patient navigation:
  - Document a care plan that contains the 13 components in the Institute of Medicine Care Management Plan outlined in the Institute of Medicine report, “Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis”
  - Provide 24 hours a day, 7 days a week patient access to an appropriate clinician who has real-time access to practice’s medical records
  - Treat patients with therapies consistent with nationally recognized clinical guidelines
  - Use data to drive continuous quality improvement
  - Use an ONC-certified electronic health record and attest to Stage 2 of meaningful use by the end of the third model performance year.

CMS will track participant performance on a number of quality measures and will provide continual feedback to practices throughout the model. In addition, quality measures will be used to determine the performance-based payments.

People undergoing cancer treatment regardless of age need extra care, resources, services and advocacy, which in today’s healthcare environment are difficult to find and financially support. Many community and hospital-based practices staff members are stretched thin in regards to resources and services due to cuts in reimbursement for drugs and services. I applaud CMS for taking this step and starting with the most venerable population but I, like most, have questions. CMMI was very willing to accommodate my interview which I greatly appreciate and even though the questions and answers below do not answer all of our questions, I believe it is a great start.

I want to thank the CMMI team for their attentiveness and conscientious nature in which they answered my questions and a special thanks William C.F. Polglase, Media Relations Group, Office of Communications (OC), Centers for Medicare & Medicaid Services (CMS) for being so assiduous and gracious in dealing with all of my emails, deadlines and questions.

**Question by Sheryl Riley, interviewer:** Why did CMS decide to launch this project in oncology care and is it truly focused on the community oncologist? If so, why?

**Answer by CMS spokesperson:** CMS identified oncology as a complex, high cost area of medicine that would benefit from the care coordination and enhanced services required by the Oncology Care Model (OCM). OCM will move oncology towards the Secretary’s goals of better care, smarter spending and healthier people.

A recent study has shown that 54% of oncology care for Medicare beneficiaries is provided by community oncologists, so the involvement of community oncologists in OCM is critical to its success. In addition, OCM participants will also include a variety of other practice structures, encompassing the diversity of oncology care in the United States.

**Second part of the question by interviewer:** Oncology is complex and high cost but do you really feel that by adding nurse navigation and care coordination you will be able to improve care and save money, if so how? What specific point of care will be improved so that care and cost will improve?

Oncology care is complex and often fragmented, requiring the interaction of multiple subspecialists, sometimes on a continual basis, to achieve optimal results. Medicare beneficiaries often have difficulties with transportation, and all patients need help navigating the medical system during this very difficult time in their lives. Patient navigation and care coordination will result in fewer missed care visits, more visits where the patient’s records and scans are present at the appointment, and more visits where the patient’s problems are understood by the provider and directly addressed. All of these changes will result in more timely and efficient care so that both the quality of care and its efficiency will improve.

**Question by interviewer:** What is the overarching goal of the project; what is your team’s vision?

**Answer by CMS spokesperson:** the overarching goal of OCM is to transform oncology practices and oncology care in the United States so that Medicare beneficiaries with cancer consistently receive patient-centered, high quality care; and that they benefit from the care coordination and enhanced services required by the model.

The model includes other non-Medicare payers, which will increase the number of patients in a practice receiving care under an alternative payment model. The inclusion of other payers will help to leverage the opportunity for practice transformation across the population and result in broader high quality oncology care systems.

**Second part of question:** Based on your answer do you not think that there is a lack of consistent patient-focused, high quality care in the community practices and how will alternative payment models increase more consistent patient-centered care and quality?

**Answer by CMS spokesperson:** There is tremendous variation in practice quality across the United States, but almost all practices can become higher quality and more patient-focused. The Oncology Care Model will increase patient centered care and quality both through its practice redesign requirements and its performance-based payments. The practice redesign requirements require practices to provide specified enhanced services such as patient navigation to qualify for the MEOS (Monthly Enhanced Oncology Services) payment. Also, to the extent that the absence of quality and patient-centeredness lead to inefficient care, patient costs will rise and the performance-based payment will decrease. In other words, practices are incentivized to provide high quality, efficient, patient-centered care.

**Third part of the question:** Might alternative payment methods such as bundled payment decrease quality and patient centered care? The reason I ask is because if the dollars for the bundled payment are utilized all for treatment and follow up, then how will the patient receive the supportive services they need such
as mental health, nutrition and diet counseling, PT, OT, ST type services, transportation, meal services, and DME needs unless the bundled payment is only for medications, radiation, hormonal, immune therapies and personalized treatment with follow up? Please explain.

Answer by CMS spokesperson: CMS strongly believes that small investments in supportive care services can lead to large savings in patient care costs. For example, an investment in physical therapy may prevent a catastrophic fall and a subsequent high cost hospitalization. Appropriate nutrition counseling may keep the patient healthier and prevent hospitalizations. Providing transportation to help a patient get to a scheduled clinic visit may prevent a much more costly ED visit later that day.

Question by interviewer: Is the timing of this project significant to other changes in payment and process by CMS?

Answer by CMS spokesperson: CMS recognizes that aligning financial incentives with practitioners, in conjunction with robust quality measures, is the best way to achieve the high quality and high value health care system we all desire. In that sense, OCM is similar to other CMS models such as Bundled Payments for Care Improvement (BPCI) and the Comprehensive Care for Joint Replacement (CJR) models.

Second part of question by: I agree that aligning financial incentives and matching that with robust, high quality measures makes perfect sense, but how does CMS decide what the best, high quality are and correct quality measures? In an article I wrote in 2014 for the Oncology Practice Management Journal, “What constitutes good oncology care”, I noted that there are no clear metrics. Many good-intentioned organizations have tried, but no one has been able to capture what the patient feels is good quality of care. It was interesting to note in my research that what was being captured was focused on cleanliness and wait times in the office more so than patient expectations, treatment understanding, second opinions, getting it right on the first try, symptom control, survivorship and self-management. I think it will be difficult to create such metrics to measure programs by, so I want to understand how CMS will develop these metrics.

Answer by CMS spokesperson: Almost all of our quality measures are identical or derived from quality metrics proposed by organizations deeply involved in cancer care and reflect a consensus about the elements of cancer care that are important to measure. Adoption of the 13 point IOM care plan will address many of the patient education issues that you highlight. There will also be a patient survey that will focus on some of the important patient care issues that you have underscored, and each practice’s performance-based payment will be directly affected by their score on this survey. Finally, OCM will monitor important clinical outcome measures like progression-free and overall survival to ensure that this most important aspect of quality is preserved, and hopefully improved.

Question by interviewer: Were you encouraged by the number of applications? Was it more or less than projected?

Answer by CMS spokespersson: CMS was pleased with the number and quality of the applications. The applications represent a geographically diverse group of practices, encompassing a range of sizes and business models (e.g. independent, hospital owned, hospital affiliated, and academic medical centers) that will allow for a comprehensive and rigorous test of the model.

Second part of question: How do you expect the health plans and pharmaceutical companies to weigh into this process? Do you expect health plans to pay $$$ to help keep the patient on guideline and follow nurse navigation/coordination as an added incentive to the 160 that CMS is paying doctors? Also, do you believe the pharmaceutical companies should help support the process and/ or software data analysis with $$$ because we all know the 160 is nice but it will not cover the navigation services that are needed for this population.

Answer by CMS spokesperson: Health plans are given latitude in designing their programs as long as the parameters of their programs reflect the general outlines of OCM. We, therefore, expect that we will see many variations in how they choose to implement their version of OCM. Pharmaceutical companies are not directly involved in OCM, but it is clear to us from our discussions with them that they recognize the need to provide the high-value, patient-centered care that OCM incentivizes.

Question by interviewer: What do you see as the value of nurse navigation and care coordination for the provider and the patient?

Answer by CMS spokesperson: Oncology care is complex, often requiring the efforts of a broad range of medical specialists. This puts a tremendous burden on Medicare beneficiaries, who often have other health conditions. Nurse navigation and care coordination can help patients and families better connect with and understand the various components of their multi-disciplinary care and can help improve quality and efficiency of care.

Second part of the question: Might it be advantageous to explain the program to the Medicare beneficiaries so they will be educated on the benefits that Medicare is trying to give them? Send Medicare beneficiaries documentation on nurse navigation and coordination to help them better understand the service. An educated consumer is a better consumer, especially in health care.

Answer by CMS spokesperson: CMS agrees strongly that communicating with our beneficiaries is critically important. All beneficiaries will receive a Beneficiary Notification Letter when they begin treatment at an OCM practice and subsequent communications along the lines you have mentioned are planned.

I dedicate this article to the practices that have the forethought and the vision of working with us at Caris Health on the CMS, OCM pilot. We will be changing the way cancer care is delivered to patients and families forever.

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References
Health System Quality Improvement: Impact of Prompt Nutrition Care on Patient Outcomes and Health Care Costs

Jvawnna Bell, MPH, MBA, Scott Goates, PhD, Claire Loose, MA, RD, LD, Anita Meehan, MSN, RN-BC, ONC, FNGNA, and Jamie Partridge, PhD, MBA

Summary

Among hospitalized patients, disease-associated malnutrition is a common and widespread problem. Alarmingly, malnutrition or its risk occurs in as many as 50% of patients admitted to hospitals in the United States and around the world.1–3 Yet, malnutrition is often overlooked and undertreated in hospital settings.4–6 In fact, some patients experience worsening of their nutritional status while hospitalized—resulting from common hospital routines (traditional preparation for surgery, missed mealtimes for medical procedures, and NPO (nil per os) orders,7 insufficient hospital staffing or education about nutrition care,8 and patients’ disease-related barriers to food intake (disease-related anorexia, too tired to eat, or feeding difficulties).6,9 Older adults are particularly vulnerable to undernutrition or specific nutrient deficiencies because they often have diseases and disabilities that limit dietary intake.3,10–12

Key Points

• Malnutrition has negative impacts on patients and the health care system, leading to more complications, slowed recovery, and higher costs of care.
• Study results show that malnourished hospital patients, compared with their adequately nourished peers, are more likely to experience pressure ulcers,13 postsurgical infections,14,15 and falls and are at greater risk for death.17,18
• Given their integral role during a patient’s hospital stay, nurses are ideally positioned to identify patients at risk for malnutrition and facilitate their treatment.30–32 A nurse-led program was initiated at Akron General Medical Center ([AGMC], Akron, Ohio), a Magnet hospital and level 1 trauma center, and a recent addition to the Cleveland Clinic Health System, to update the hospital nutrition care process and streamline its delivery.

METHODS

Quality Improvement Nutrition Team

An interdisciplinary quality improvement (QI) team was assembled to evaluate and revise the hospital process for nutrition screening and intervention. The number of team members varied over time, ranging from 7 to 20, depending on activities in different phases of the QI project. Members represented the following departments, all of which were relevant to the nutrition administration process: nursing, nutrition (dietitians), administration, pharmacy, data analysis and research, information technology, and medicine (physicians). The team’s review of the literature revealed that use of ONS (Oral Nutrition Supplement) during hospitalization can benefit patients who are malnourished or at risk of malnutrition.25,27,33,34 Ultimately, the team developed a system in which nurses screened patients’ nutritional status on admission and prescribed ONS for those at malnutrition risk. The ONS prescription was recorded in the electronic medical record (EMR) and was linked to the medication administration record (MAR), which, in turn, sent cues to the nurse for ONS dose, delivery, and record of compliance.

Population, Intervention, Outcomes Measured

We used retrospective medical record audits to assess treatments and outcomes for adult patients (aged ≥18 years) admitted to AGMC between 2011 and 2013. We compared records of patients admitted between July and December 2011 with those admitted between July and December 2013. The QI intervention with medication pass ONS implementation occurred in January 2012. We chose the second half of 2013 as the postintervention period to provide sufficient time for the intervention to become standard of care, and we compared similar time periods (second half of 2011 and 2013) to control for potential seasonal differences.

Nutritional risk was determined using the Malnutrition Screening Tool.35 Prior to the QI changes, patients were screened by nurses, and those with malnutrition risk were referred to a dietitian for nutrition assessment, who would then write recommendations for nutritional support pending physician approval. Post-QI, nurses continued to screen patients for malnutrition risk, but when risk was identified, nurses ordered intervention with ONS. The nurse’s
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order was entered in the EMR. The EMR automatically transmitted
the ONS prescription to the MAR and also notified the dietitian to
evaluate the patient and validate the prescription. The EMR order
then electronically cued the MAR for prompt start of medication
pass ONS. ONS portions (~90 mL/dose; Ensure Complete, Abbott
Nutrition) were given to patients 3 times each day for the total
target intake volume of 1 serving per day.

We assessed the following outcomes: (1) time from nutrition
screening to initiation of nutrition intervention (for patients
at risk of malnutrition); (2) use of ONS by at-risk patients; (3)
hospital-acquired pressure ulcers (HAPUs); (4) hospital LOS;
(5) rate of hospital readmission (within 30 days); and (6) cost per
hospitalization episode (inflation-adjusted to 2013 dollars).

**Data Collection and Statistical Analyses**

Outcomes were tabulated retrospectively from records of
patients admitted either before or after the QIP was implemented.
As a Magnet hospital, our facility routinely compiles data on
pressure ulcers as a nurse-sensitive quality indicator (National
Database of Nursing Quality Indicators [NDNQI]).

The proportion of admitted patients using ONS pre-QIP was
compared with the post-QIP proportion using a 2-sample t test.
For LOS (length of stay), readmissions, and hospitalization costs,
mean values with standard errors were calculated. The sample
was divided into 2 groups based on patients’ primary diagnoses.
We placed patients with the 10 diagnoses most commonly treated
with ONS in a nutrition-sensitive group, and all other patients
were placed in the control group. A difference-in-difference
methodology was used to assess the impact of the intervention and
control for potential confounders. We hypothesized that if the QIP
was successful, we would see a greater change in the nutrition-
sensitive group, those with diagnoses amenable to treatment
by ONS, than in the control group. Statistical differences were
determined by means comparison t tests.

**RESULTS**

**Patients**

Hospital records of nearly 20,000 patients were evaluated
retrospectively. The age range was from 18 to 111 years, with an
overall mean age of 59 years, and there were slightly more women
than men (Table 1).

**QIP Reduced Time to ONS Initiation**

For pre-QI measurement of time to ONS, we conducted a
retrospective chart audit of 30 patients admitted to the neuroscience
unit. The average time from identification of malnutrition risk to
the patient receiving intervention was 2.3 days. Post-QI, the wait
time for ONS initiation was reduced to less than 24 hours. Thus,
having the nurse order ONS reduced delay time by more than 1
day.

**Administration of ONS to Patients Increased**

Comparing post-QI with pre-QI practices, the proportion of
patients receiving ONS increased significantly (P < .01) by 33%:
from 6.1% of total (613/10 106 pre-QI) to 8.1% (794/9761 post-
QI).

**Hospital LOS and Probability of 30-day Readmission Decreased**

The average LOS was 4.87 days in the pre-QI control group,
whereas post-QI control patients experienced an average LOS of
just 4.47 days, a reduction of 0.40 days (Table 2). As expected,
the impact of medication pass ONS on LOS was more apparent among
patients whose diagnoses were typically treated with nutritional
supplementation; the average LOS in this group fell from 5.74 to
4.97 days—an improvement of 0.77 days (Table 2).

The probability of readmission to the hospital within 30
days of discharge was 14.4% for the pre-QI control group and
nonsignificantly lower at 13.8% in the post-QI group. Examination
of the patients with nutrition-sensitive diagnoses revealed a
more profound improvement in the probability of readmission;
probability of readmission declined from 19.7% pre-QI to 16.3%
post-QI (P < .01). Consistent with our hypothesis, the change in the nutrition-sensitive group was greater than that in the control group (P < .05) (Table 2).

**Hospital-Acquired Pressure Ulcers (HAPUs) decreased**

Nutrition support is thought to play a role in preventing the development of hospital-acquired conditions such as HAPUs. Based on NDNQI data, there were 40 incident HAPUs in the last 2 quarters of 2011, compared with just 20 in the last 2 quarters of 2013, indicating that our QI was associated with a 50% reduction in incident HAPUs (Table 2).

**Cost of Hospitalization Reduced**

Finally, we examined whether nutrition support affects the patient’s hospital charges. Patients whose diagnoses are commonly treated with nutrition support saw a compelling $969 (8.8%) average reduction in their total hospital bill (P < .01). In contrast, patients with diagnoses not commonly treated with nutrition support experienced a smaller, nonsignificant, decrease in costs of $217 (2.1%; Table 2). Such findings are consistent with our hypothesis that the impact of the QI is expected to be greater among those with diagnoses that are considered to be nutrition-sensitive.

### Table 2. Summary of QI Outcomes

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<th>Pre-QIP</th>
<th>Post-QIP</th>
<th>Conclusion</th>
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<tbody>
<tr>
<td>LOS, mean, d</td>
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| Control                        | 4.87 (SE = 0.05) | 4.47 (SE = 0.05)
  b                                | Decreased by 0.40 d (8.3%)\(^\text{b}\)                      |
| Nutrition-sensitive            | 5.74 (SE = 0.12) | 4.97 (SE = 0.10)
  b                                | Decreased by 0.77 d (13.4%)\(^\text{b}\)                      |
| Readmission probability\(^\text{d}\) |                  |                  | Percent reduction of 4%                           |
| Control                        | 14.4% (SE = 0.004)| 13.8% (SE = 0.04)
  b                                | Reduced 13% more for the nutrition-sensitive group than for the control group\(^\text{c}\) |
| Nutrition-sensitive            | 19.7% (SE = 0.01) | 16.3% (SE = 0.09)
  b                                | 50% decrease after implementation of ONS medication pass         |
| Hospital-acquired condition: Pressure ulcers | 40 | 20 |                        |
| Cost of care, mean             |                  |                  |                                                 |
| Control                        | $10 222 (SE = $135) | $10 005 (SE = $127; NS) | Decreased $217 (2.1%)\(^\text{c}\)       |
| Nutrition-sensitive            | $10 996 (SE = $512) | $10 026 (SE = $268)
  b                                | Reduced $752 more for the nutrition-sensitive group\(^\text{c}\) |

Abbreviations: LOS, length of stay; NS, nonsignificant; ONS, oral nutritional supplements; QI, quality improvement; QIP, quality improvement program.

\(^{a}\)Control group: patients with diagnoses not usually treated with ONS (n = 8539 pre-QIP; n = 8187 post-QIP). Nutrition-sensitive group: patients with diagnoses that would commonly be treated with ONS (n = 1567 pre-QIP; n = 1574 post-QIP).

\(^{b}\)P < .01.

\(^{c}\)P < .05

\(^{d}\)Within 30 days of discharge.

\(^{e}\)P value is not significant.
DISCUSSION

This nurse-led study examined the impact of a QI-designed nursing nutrition protocol for hospitalized patients. According to the protocol, (1) nurses screened patients for malnutrition risk at admission, (2) nurses prescribed ONS for patients at risk, and (3) EMR/MAR systems were used to support ONS distribution and audit patient compliance.

We found both expected and unexpected benefits from the nursing nutrition protocol. By adding medication pass ONS to the EMR/MAR, the nurse could initiate nutritional intervention in an efficient and timely way. The system automatically entered a consult to the dietitian for a comprehensive nutritional assessment, advice, and care, so patients did not have to wait for dietitian recommendations before receiving nutrition support. We also found that giving ONS with medications, as opposed to on a meal tray, conveyed to each patient that ONS was as important as medication. The net result was that a higher proportion of hospital patients received ONS; the rate increased from 6.1% of pre-QI to 8.1% post-QI patients, which suggests that the revised nutrition practice captured patients who were overlooked in pre-QI practices.

In terms of timeliness, the interval between nutritional screening and provision of ONS decreased from more than 2 days pre-QI to less than 24 hours post-QI. Malnutrition risk screening within 24 hours led to prompt identification of risk, which, in turn, led to prompt treatment with ONS. Malnutrition risk screening within 24 hours of admission is required by The Joint Commission.36

Comparing pre-QI and post-QI outcome measures demonstrated specific benefits to timely nutrition care—fewer complications (such as HAPUs), decreased LOS, and lower rates of 30-day readmission. In turn, costs per hospitalization episode were reduced. Specifically, our already low incidence of HAPUs was halved, LOS was shortened by 0.77 days in patients with diagnoses that commonly necessitated ONS use, and rates of 30-day hospital readmissions were lowered by 17% in these patients. Hospitalization costs were reduced an average of $969 per nutrition-sensitive patient.

Over the course of the QIP, the team addressed both perceived and actual barriers. As an actual barrier, the initiation of the program coincided with an upgrade in the EMR system, resulting in a need to reexamine the entire process of malnutrition risk screening and nutrition support. Upgrading the documentation system meant no changes could be made to the current documentation information. This unanticipated event hindered our initial plan to add the ONS to the top of the list of oral supplements for ease of documentation. Nurses had to scroll to the bottom of a long list of supplements to document ONS administration, product name, amount, and time. After a few weeks of observation, it was clear that the QI team needed to develop a more efficient way to record ONS prescription, monitor delivery as prescribed, and audit the process. It was anticipated that these goals could be met if the EMR was linked to the MAR; however, the team was concerned there would be an objection from pharmacy administration to listing a nurse-ordered ONS among other medications. The issue was discussed with representatives from pharmacy; they understood the problem in the larger perspective and readily agreed to include ONS in the MAR. This change was critical to the success of the program, as it provided a way to ensure consistent, targeted distribution of the supplement and allowed a means to monitor the program.

In summary, our study results underscore the value of QI as a way to increase attention to hospital nutrition care, make nutrition practice changes, and test effectiveness of these changes. We specifically showed how involvement of nurses in nutrition screening and ONS prescription could improve nutrition care and subsequent outcomes. We streamlined nutrition practice by using the EMR/MAR to cue ONS administration at medication pass, and we found that the MAR was a useful tool to monitor patient compliance with ONS use. With all of these improvements and efficiencies, we showed that timely and appropriate ONS use could yield better health outcomes with lower costs of care.

NICHE Program (Ms. Meehan) and Food & Nutrition Department (Ms. Loose), Cleveland Clinic–Akron General, Akron, Ohio; and Health Economics and Outcomes Research (Ms. Bell and Drs. Partridge and Goates) and Nutrition Science (Dr. Nelson), Abbott Nutrition Research and Development, Columbus, Ohio.

References


This article first appeared in the Journal of Nursing Care Quality and is republished here under a Creative Commons license. http://journals.lww.com/jncqjournal/Fulltext/2016/07000/Health_System_Quality_Improvement__Impact_of.5.aspx.
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Review Article - Comorbidities in Rheumatoid Arthritis

Maria Aziz and KS Yadav

Summary

The aim of the review is detection, prevention and management of comorbidities. Rheumatoid Arthritis (RA) patients, besides arthritis complaints, also have comorbid conditions. The aim of this review is to consider associated comorbidities and discuss their management in RA patients.

Key Points

- All RA patients should be vaccinated annually with Influenza and every 5 years with pneumococcal vaccine. They should also be evaluated for CVD risk annually.
- Systematic evaluation of comorbidities in RA patients can significantly improve their outcomes. In daily practice, detection, management and prevention of comorbidities should be actively implemented.
- A multidisciplinary team approach is encouraged to improve quality of life in RA patients.

RHEUMATOID ARTHRITIS (RA) AND COMORBID CONDITIONS

Rheumatoid Arthritis (RA) is a chronic progressive disease. It’s a common autoimmune disorder associated with disability. In RA, synovial tissue is targeted by the immune system and the joint becomes red, warm, swollen and inflamed and causes pain, if left treated joint loses its shape and alignment causing permanent disability. Mostly RA is diagnosed in age >40 years and in women.2-5

Most of the RA patients are associated of comorbid conditions. Comorbid conditions are defined as all secondary diseases other than the primary disease. Broadly, there are 2 classes of comorbid conditions- those arising due to disease pathology and, secondly, those due to treatment drugs. Most common organs affected are eye, heart, lung and bones. Psychological disorders are also common in RA.6-8

Comorbid conditions are well defined as multiple chronic conditions. Of important consideration are Depression, Asthma, CVD Events (Mi, Stroke), Solid Malignancies, COPD, Infections, and Osteoporosis (Figure 1).9

Comorbid abnormalities can be identified by detecting abnormalities in vital signs, such as elevated blood pressure, laboratory test abnormalities, hyperglycemia, hyperlipidemia.10-12 Systematic measurement of vital signs and laboratory testing both help in detecting comorbid conditions. Reverse pyramid approach of aggressive treatment has significantly improved prognosis in RA patients.13 Close monitoring and regular adjustments of drug doses with the target of low DAS has significantly helped in improving outcomes in RA patients. Comorbidities should be screened and treated to improve quality of life in RA patients. Comorbidities cause functional impairment hence their active treatment should be a part of a management plan of RA patients.14 Possible causes of comorbidities in RA are DMARDs, smoking and chronic inflammation. The European League Against Rheumatism (EULAR) recommendations include, all RA patients should be vaccinated annually with Influenza and every 5 years with pneumococcal vaccine and should also be evaluated for CVD risk annually.15 Red flags that warrant CVD evaluation are RA disease duration of >10 years, presence of RF, presence of extra articular manifestations. Comorbid conditions should be evaluated and risk factors should be screened and active implementation should be done in daily clinical practice.16, 17

Coexisting risk for cardiovascular diseases (Hypertension, Diabetes, Dyslipidemia, Sudden death), risk factors for infections, vaccination status, risk factors for cancers like family history of cancers, skin cancers, IBD should be screened.18, 19

For cardiovascular diseases all risk factors should be evaluated annually. Antithrombotic drug should be given to all patients with thrombotic cardiovascular event.20 Raised Blood Pressure >140/90, raised blood sugar levels, raised cholesterol levels are CVD risk factors of consideration and their management should be included in the treatment plan. Physical inactivity is considered as a main cause for hypertension, hyperglycaemia and dyslipidaemia, hence patients should be encouraged to join self-training programs to keep the joints healthy and simultaneously reverse cardiovascular risk factors. DMARDs, TNF i, CS, NSAIDS also increase comorbidities.21-24 Hence judicious choice of treating drugs should
be made by the Rheumatologists.

Optimal Monitoring Criteria

For screening of infections (HBV/HCV), an annual dental exam is recommended. Patients should be updated on vaccination status for influenza, pneumococcus.

For cancer screening, DRE/PSA measurements should be performed for age group 50-75 years.

PSA<1 ng/ml=EVERY 3 YEARS EVALUATION
PSA 1-4 ng/ml=ANNUAL EVALUATION
PSA>4 ng/ml=MONITORED OPTIMALLY

- Breast cancer, Women 50-74 year, screening within 2 years of study visit,
- Uterine cancer, screening within 3 years of study visit
- Colon cancer, screening with FOBT AND colonoscopy, within 2 years before study visit.
- Lung cancer, CXR after diagnosis of RA

1. Osteoporosis, DEXA scan should be done after onset of RA, vitamin D supplementation at the time of the study visit.
2. Risk factors for cardiovascular diseases should be screened.
4. Risk factors for cancer should be screened-family history of prostatic cancer, breast cancer, colon cancer, skin cancer and IBD should be part of evaluation.

MANAGEMENT OF COMORBIDITIES

Cardiovascular diseases

Annual evaluation of blood pressure, total cholesterol, LDL, HDL, blood glucose, serum creatinine should be done. Antithrombotic drugs should be prescribed to patients with MI, stroke Prophylactic Antithrombotic drug treatment. Treatment of hypertension, hyperglycemia, hypercholesterol, dyslipidemia should be part of the plan.

Infectious diseases

Annual dental exam,
Annual vaccination for influenza,
Vaccination for pneumococcus every 5 years.

Cancers

Optimal screening for malignancies.

Osteoporosis

DEXA SCAN
VITAMIN D supplementation.

Primary care providers (PCPs) should assess multiple comorbidities and consider their management in RA treatment plan. Systematic evaluation of comorbidities in RA patients can significantly improve their outcomes. In daily practice, detection, management and prevention of comorbidities should be actively implemented.

Comorbid conditions, pain and disability significantly causes depression amongst RA patients hence depression should be screened and patients should be counselled appropriately.

Summary

Rheumatologists should consider periodic assessment of comorbidities while deciding management plan for RA patients. A collaborative approach between the rheumatologist and the primary care provider is warranted. This approach will reduce the prevalence of comorbidities among RA patients. Comorbidities in RA can be improved by early detection and management. A multidisciplinary team approach is encouraged to improve quality of life in RA patients. Management should be patient oriented rather than joint centered and should be a team work of all health care providers and specialists together.

Take Aways

- Optimal management of comorbidities should be considered by PCP.
- Cardiovascular risk factors should be aggressively screened in RA patients as compared to the general population.
- Traditional risk factors should be screened and managed to reduce CVD risk in RA patients.
- More severe RA disease has more severe CVD outcomes and hence RF, DAS scores can be used to assess CV mortality.
- RA patients with traditional cardiovascular risk factors cautious use of NSAIDs and corticosteroids should be done.
- Early aggressive treatment with MTX, TNFi can reduce the risk of CVE in RA patients.
- Smoking cessation should be encouraged.
- RA patients should be encouraged for physical activity, reduce their weight and BMI. Healthy BMI should be encouraged.
- Infections should be actively screened and RA patients should be updated in their vaccinations.
- Cancer screening should be done.
- Assess risk of osteoporosis and fractures.
- RA patients should be screened for depression.

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References

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Healthcare Leadership Development and Training: Progress and Pitfalls

Roberta E. Sonnino

Summary

Formal training in the multifaceted components of leadership is now accepted as highly desirable for health care leaders. Despite natural leadership instincts, some core leadership competencies (“differentiating competencies”) must be formally taught or refined. Leadership development may begin at an early career stage. Despite the recognized need, the number of comprehensive leadership development opportunities is still limited. Leadership training programs in health care were started primarily as internal institutional curricula, with a limited scope, for the development of faculty or practitioners. As some programs reach their 20th year of existence, outcomes research has shown that health care leadership training is most effective when it takes place over time, is comprehensive and interdisciplinary, and incorporates individual/institutional projects allowing participants immediate practical application of their newly acquired skills. A combination of early and mid-to-late career development may represent the optimal training for effective leaders. This paper addresses the skills that health care leaders should develop, the optimal leadership development concepts that must be acquired to succeed as a health care leader today, some resources for where such training may be obtained, and what gaps are still present in today’s system.

Key Points

- Early career leadership training helps to develop a pipeline of leaders for the future, setting the foundation for further development of those who may choose to pursue significant leadership opportunities later in their career.
- Training should envelop all the traditional health care domains of clinical practice, education, and research, so the leader may understand all the activities taking place under his/her leadership.
- More training programs are needed to make comprehensive leadership development widely accessible to a greater number of potential health care leaders.

Health care organizations are complex environments that require strong, comprehensive, and collaborative leadership. Over the past 15–20 years, awareness of the importance of leadership in health care and of formal leadership training has increased dramatically. Historically, advancement to leadership positions in medicine was based on the candidate’s academic or clinical accomplishments, with no expectation of knowledge in the so-called differentiating competencies, such as finances, team building, communication skills, and emotional intelligence. The concept of leadership has evolved from the top-down, paternalistic model, where the leader is in complete control and demands performance from others, to a more collaborative approach, where the leader helps his/her team develop a vision and empowers them to accomplish the stated goals. Many have suggested that formal training in the multifaceted components of leadership is necessary and should begin at an early career stage; yet still today, the number of comprehensive leadership training opportunities, at any career level, is limited.

While the literature on the topic of leadership has increased substantially, reports on comprehensive health care leadership training programs (including interdisciplinary programs) are still scarce, no doubt a reflection of the paucity of such programs. Most publications on the subject of leadership training concentrate on a specific sector of health care, or a stage of professional training, and describe group-centered curricula that are often devised for internal constituencies. Several reviews of the literature on leadership training programs have appeared, but few describe the major national, comprehensive health care leadership training opportunities.

Leadership training programs in health care were started primarily as internal institutional curricula, with a limited scope, for the development of faculty or practitioners. More comprehensive leadership programs were developed in response to the needs of specific cohorts of individuals. Programs for women (both comprehensive and specialty-specific) were among the first to appear in an attempt to increase the ranks of senior women leaders in the health sciences. The long-existing programs such as the Executive Leadership in Academic Medicine (ELAM) program have shown that the health care leadership training is most effective when it takes place over time, is comprehensive and interdisciplinary, and incorporates individual/institutional projects with immediate practical application of newly acquired skills.

Particularly important is the notion that the training should envelop all the traditional health care domains of clinical practice,
Therefore, individuals are, by necessity, becoming more aware in certain situations and more relationship oriented in others. In health care, three of these types were "management", "control", and "relationship" behaviors. This definition has evolved over time, and today, we recognize different styles of leadership, each with their own definitions. In nursing, reaching a leadership role is often an expectation for a large number of individuals. It should therefore be no surprise that the nursing profession has embraced leadership training earlier than others in health care. Likewise, hospital administrators are usually "big picture" leaders, having come up through the administrative ranks. They likely have managerial experience, so the transition to leadership is fairly natural, as long as they are able to also have vision in addition to their managerial skills. One cannot, however, assume that these individuals possess all the traits that will make them effective leaders in a large and complex health care system: the development of integrated leadership processes throughout health care delivery systems is needed.

For physicians, the transition to becoming true modern leaders is a major accomplishment, often requiring a move outside their comfort zone. In fact, many cringe at the thought of having to be a leader. Senior physicians, in particular, do not always have a system’s perspective, which is an important competency for a health care leader. Arroliga et al state that failure to train our healthcare leaders could have a long-term negative impact on society. He argues that the traditional means of selecting leaders (by virtue of age, productivity or other academic skills) was inadequate, as these individuals simply emulated their predecessors, but had no formal development of the personal and professional qualities and skills required by a leader.

Thankfully, this may be changing as educational standards for trainees evolve. In 2002, the Accreditation Council on Graduate Medical Education (ACGME) launched their outcomes project, a competency initiative that included six core competencies that residency programs use to evaluate their residents. One of these is systems-based practice. These competencies, now included in the ACGME accreditation system as performance milestones, began the task of introducing this topic into medical education, albeit at the graduate level. As a result, many medical schools have elected to incorporate these skills in their medical student curriculum as well. Hopefully, the trend of investing in the leadership growth of physicians from their earliest development will allow them to acquire the skills to become better collaborative leaders, with a vision for the entire realm of health care.

Types of Leadership

The historical definition of leadership in the dictionary was “the position or function of a leader, a person who guides or directs a group”, with synonyms that included “administration”, “management”, and “control”. This definition has evolved over time, and today, we recognize different styles of leadership, each with their own definitions. In health care, three of these types are prevalent and most identified:

- Transactional leaders, who work within the boundaries and the existing standards of the organization. They are usually not risk takers, but focus on efficiency, control, stability, and predictability.
- Transformational leaders, who raise one another to higher levels of motivation, making changes and shaping the future.
- Servant leaders, who focus on the service aspect first as they have a natural tendency to help others.

Each of these types has its place in health care, but transformational and servant leaders are more likely to help the institution advance, while transactional leaders are most qualified to maintain the status quo.

Today’s leaders require two general types of behaviors: “task” behaviors and “relationship” behaviors. Task behaviors allow the individual to accomplish his/her goals and enable leaders to guide others in achieving their objectives. Relationship behaviors involve the ability to interact with peers and subordinates in a way that all feel comfortable with themselves, with each other, and their specific setting. A leader may be more task oriented in certain situations and more relationship oriented in others. Therefore, individuals are, by necessity, becoming more aware of their own leadership styles and the way they communicate, usually through feedback from others. Physicians, for example, are not usually trained to concentrate on leadership or think about their own behavioral style. By the nature of their profession, they tend to focus on outcomes rather than the processes involved in achieving those outcomes. Yet, leadership is an intrinsic part of the practice of medicine, even in the interactions with patients and their families. Gabel examined how all physicians take on leadership roles at some time in their careers, whether formally or informally. He discussed the characteristics of formal and informal leaders and concluded that it is important to expand the scope of leadership training so that both types of leaders are included.

Different health care leaders may arrive at their positions via different personal paths. Rogers published an analysis of the communication and leadership styles of health care leaders in each major area within an academic health center, that is, medicine, nursing, and administration. She studied the importance of linking leadership styles to individual professions. She concluded that physicians, nurses, and administrators must have an increased awareness of self and individual leadership style and that each of these health care leaders must be engaged in practices of reflection.

In nursing, reaching a leadership role is often an expectation or at least an aspiration for a large number of individuals. It should therefore be no surprise that the nursing profession has embraced leadership training earlier than others in health care. Likewise, hospital administrators are usually “big picture” leaders, having come up through the administrative ranks. They likely have managerial experience, so the transition to leadership is fairly natural, as long as they are able to also have vision in addition to their managerial skills. One cannot, however, assume that these individuals possess all the traits that will make them effective leaders in a large and complex health care system: the development of integrated leadership processes throughout health care delivery systems is needed.

For physicians, the transition to becoming true modern leaders is a major accomplishment, often requiring a move outside their comfort zone. In fact, many cringe at the thought of having to be a leader. Senior physicians, in particular, do not always have a system’s perspective, which is an important competency for a health care leader. Arroliga et al state that failure to train our healthcare leaders could have a long-term negative impact on society. He argues that the traditional means of selecting leaders (by virtue of age, productivity or other academic skills) was inadequate, as these individuals simply emulated their predecessors, but had no formal development of the personal and professional qualities and skills required by a leader.
Traits of Healthcare Leaders

Contrary to the old image, today’s leader must possess the skills of listening, empathy, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community. Stoller27 observed that health care leaders must also possess commitment, integrity, altruism, and authenticity. He listed some of the skills and traits that physician leaders, in particular, must have or acquire. These include a technical knowledge of insurance and reimbursement issues, how to balance expense with quality of patient care, health care regulations (including the Affordable Care Act), legal issues in health care and public policy, problem-solving skills, communication skills, emotional intelligence, and a commitment to lifelong learning. In his editorial in the American Journal of Medicine, Alpert28 defines qualities that are important for leaders. These include commonly mentioned themes such as equity, justice, role modeling, work ethic, balancing work and personal life, organization, and prioritization. Developing all these skills may be a challenge for many individuals.

In the early years of recognition that health care professionals required some form of leadership training, degree programs such as MPH and MBA were thought to be the solution.24 These programs provide knowledge in specific areas (global health, epidemiology, financial skills, etc), together with managerial and administrative skills. But experience has shown that these additional degrees do not necessarily turn an individual into a leader. Managers, administrators, and leaders are not one and the same. While an individual may encompass all three of these descriptors, often that is not the case. As described by Curtis et al,29 managers administer, maintain, control, have a short-term view, and initiate. Other managerial roles include planning and budgeting, organizing resources, and problem solving. Leaders, on the other hand, “innovate, develop, inspire, challenge the status quo, and focus on a long-term vision”. Kotterman30 defines management as dealing with procedures, practices, and complexity and leadership as dealing with change.

While the skills acquired through various Master’s programs are indeed highly desirable in many leadership roles, comprehensive leadership programs are necessary for the development of broad leadership skills – the “differentiating competencies.” A program at Duke31 for medical residents who have already obtained graduate management training (eg, MD-MBA) combines the benefits of formal MBA training with training and experiential learning in the leadership competencies and may represent a new model for early career leadership development.

Soubra32 discussed the changes that have occurred in health care leadership over the years. He described the shift in traits from those that made an individual a leader in the “old” days to those accepted today. Business and administrative acumen, a foreign concept for a clinical leader of the past, is now a necessity. The ability to engage others in creating a common vision and building teamwork is in stark contrast with the old image of the leader as a despot, commanding from above. Strong communication skills were always appreciated but are often lacking in the leader: lack of communication today is likely to derail a leader. Possibly, the most dramatic change in required skills is the concept of emotional competence – the ability to look within oneself, recognizing not only the feelings of others but also one’s own. The concepts of awareness and authenticity have gained wide acceptance. Empathy and the ability to develop others through mentoring and coaching are, today, among the traits that truly differentiate a leader from the rest.

The Need for Formal, Comprehensive Healthcare Leadership Development

While some individuals are “born leaders” with good instincts, some formal leadership training in the differentiating competencies is needed – many skills must be learned or refined. This may include rules, laws, governance, or the personal competencies that are not innate in all. Leaders who believe that they can do it without any formal training often succeed for some time but eventually will encounter critical situations that they are not prepared to handle alone. Then they urgently seek the resources to help them succeed, often too late to salvage a career. The fact is that when the need for a leader in a given role presents itself, taking an individual who has demonstrated mastery of his/her profession’s skills and expecting her/him to become a leader intuitively, is no longer a satisfactory (or successful) model. We need a pipeline of emerging leaders, both in the purely clinical health care realm and in academia, who have already mastered the additional skills through formal experiential training and will have greater odds of success when asked to step into a new leadership role. It would be preferable for all if training in the key knowledge and skills were more easily accessible and therefore acquired before a major institutional and career failure dictate the need for more education.

These needs are global: the Foundation for Advancement of International Medical Education and Research (FAIMER),33 based on the ELAM model10 and cofounded by the Founding Director of ELAM, demonstrated that leadership and management can be taught across cultures and that this has enhanced the ability of the leaders in the served countries to maintain alignment with their local needs, developing trust in their own abilities and avoiding persistent dependency on other countries. This is a unique example that appears to validate the principles of leadership training developed for American health care as they apply to the global health care community.10, 34

Warren and Carnall15 from the UK noted that their national health care system has also neglected leadership training for physicians. They encouraged physicians to develop skills and a level of understanding that go beyond technical expertise in their specialty, including the ability to create and communicate their vision and set clear direction. Warren and Carnall concluded that leadership training programs were most successful when the participants were given the opportunity, during the program, to work on some of the “real time” challenges they faced at their home institution. They also concurred with the opinion that programs spanning longer periods of time, allow the participants to absorb and reflect on their new knowledge, and incorporate it in their daily activities.

What Should Training Include?

Because leadership development is needed for all the professions from which health care leaders emerge (medical, dental, public health, nurses, allied health providers, and administrators), the ideal curriculum would be interdisciplinary and applicable to as many as possible of these groups. Such a program should include essential and universal leadership skills (conflict management, negotiation, financial skills, etc), as well as strategies to develop
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personal traits. Table 1 lists a compilation of the essential elements of leadership development and the competencies considered the most important skills to be developed in health care leaders.

| Table 1: Optimal Elements and Competencies of Healthcare Leadership Development |
|---------------------------------|---------------------------------|---------------------------------|
| **Pretraining assessment**      | 360 feedback                    |
| **Differentiating competencies**|                                 |
| Finances and economics          |                                 |
| Team building                    |                                 |
| Communication skills             |                                 |
| Emotional intelligence           |                                 |
| Conflict management              |                                 |
| Negotiation                      |                                 |
| **Personal competencies**        |                                 |
| Personal professional development|                                 |
| Introspection – getting to know oneself |                             |
| Listening                        |                                 |
| Empathy                          |                                 |
| Awareness                        |                                 |
| Persuasion                       |                                 |
| Integrity                        |                                 |
| Authenticity                     |                                 |
| Altruism                         |                                 |
| Equity                           |                                 |
| Justice                          |                                 |
| Work ethic                       |                                 |
| Role modeling                    |                                 |
| Innovation: develop, inspire, challenge the status quo, and focus on a long-term vision | |
| Foresight                        |                                 |
| Stewardship                      |                                 |
| Commitment to continuous improvement and lifelong learning | |
| Balancing work and personal life |                                 |
| **Task-oriented knowledge (may differ for individuals in different areas of health care)** | |
| Business and administrative acumen and skills | |
| Technical knowledge of insurance and reimbursement issues | |
| How to balance expense with quality of patient care | |
| Health care regulations (including the Affordable Care Act) | |
| Legal issues in health care and public policy | |
| Problem-solving skills           |                                 |
| Being a change agent             |                                 |
| Emerging issues and strategic planning |                             |
| Organization and prioritization, time management | |
| **Leadership development training concepts** | |
| Didactic teaching using different methods – adult learning | |
| Mentorship and coaching          |                                 |
| Experiential leadership opportunities |                             |
| Reinforce/build a supportive and safe culture | |
| Networking                       |                                 |
| Ensure high-level sponsorship and involvement | |
| Integrate all features of the program |                             |
| Offer extended learning periods with sustained support | |
| Encourage ownership of self-development |                             |

Some general concepts are universally important for leadership development. For an effective program that will give leaders insight into themselves and others, pretesting for learning style and personality characteristics are a must. These include identifying each individual’s Myers Briggs type indicators and completion of formal 360 feedback evaluations. Learning how to use the information obtained from these assessments is a key to develop the insight to one’s own characteristics, as well as learning to interact effectively with individuals very similar or very different from oneself.

An ideal leadership development program would include a basic curriculum of general, comprehensive health care concepts, presented with diverse methodologies, including didactic teaching, mentorship and coaching, and experiential leadership opportunities. In addition, there should be specific elements for each individual’s area of leadership, be it hospital administration, a clinical setting, or academia. Even more detailed specialty-specific topics may be appropriate, if feasible. For example, surgeons, operating room nurses, and allied health providers need to learn operating room-related leadership skills and information, whereas clinic nurses and outpatient-based physicians and pharmacists need to learn skills specific to their ambulatory setting. Basic researchers have an entirely different set of skills required to run a major research program, and educators need the proper tools to lead curriculum development, innovative practices in education, etc.

Training about leadership styles and situational leadership should be a component of the curriculum for emerging health care leaders, allowing them to understand and be able to interact with individuals with different styles from their own.

Among the competencies that should be included in most comprehensive leadership curricula, the most significant include finances and economics, emerging issues and strategic planning, personal professional development, adaptive leadership, conflict management, time management, ethical considerations, and personal life balance. In addition, developing a well-defined project that will have an impact on the institution provides a practical, on-the-job application of skills learned that are therefore more likely to become ingrained.

Blumenthal et al suggested that the common elements of effective leadership development programs include reinforcing or building a supportive culture, ensuring high-level involvement and mentorship, using a variety of learning methods, offering extended learning periods with sustained support, encouraging ownership of self-development, and committing to continuous improvement. These concepts are echoed by others, such as The University of Minnesota Medical School Emerging Physician Leaders Program (EPLP). This 3-year program for young physicians applies principles that are of universal value:

- Leaders develop personal resilience through continual learning. Lifelong learning is essential to success as a professional.
- Adult learning includes discovering the personal meaning of ideas. Opportunities for applying learning to one’s experience must be meaningful, varied, and frequent.

Learning shared with a cohort of fellow learners enhances the discovery process: adults can learn as much from each other as they do from formal instruction. Learning is also enhanced when participants share common work experiences.
• While learning is unique to each person, learners need consistent methods of reviewing and improving learning outcomes.
• Learning is reinforced by mentoring and coaching and becomes embedded when participants are able to utilize what they have learned in a timely manner.

Mentoring\(^\text{36}\) deserves special attention. It is rightfully considered a key component of leadership training, especially at the emerging leader level. The guidance of a more experienced individual allows the emerging leader to safely experiment with his/her developing style and knowledge. A mentor is a “a trusted counselor or guide”\(^\text{17}\) who will direct the mentee in navigating institutional politics and processes, help with specific tasks such as manuscript or grant preparation, and keep the individual on a steady path of upward career development. Mentors are not reserved for emerging leaders: one is never too old or too senior to benefit from good mentorship.

The next step, which in my opinion should be a required component of senior leader development, is exposure to executive coaching. Coaching differs from mentoring in that it is directed at enhancing performance in specific areas. It is goal oriented and may be a relatively short-term process, although many successful leaders avail themselves of a coach for their entire careers. A key distinction is that the coach is there not to direct (as a mentor may do) but to provide a “third opinion”, by asking pertinent questions and helping the leader arrive at the recognition of the right steps or decisions to make.\(^\text{37}\) Velsor et al state that individuals who receive coaching remain responsible for communicating their learning needs to their coach, and for implementing the plans developed together. It is their responsibility to assure that the topics of discussion are appropriate to their needs and address any feedback they may have received. The coach does not set the agenda, but is there to assure that it is developed properly.\(^\text{38}\)

This is the ultimate example of “sustained support” that is purely within the control of the leader.

Finally, the environment in which the training occurs plays an important role. It must be understood to be “safe”, a place where everything is open for discussion, without repercussions, honesty and candor, is welcome and respected and, above all, will remain confidential within the confines of the training partners. A long-term benefit of longer training programs, not to be underestimated, is the networking and peer mentoring that inevitably develops. It is often stated that “it is lonely at the top”: the relationships developed during these types of intense training often result in a continuation of that safe environment long after the program has been concluded. What emerge are life-long relationships and networks of trusted peers that can provide strong, safe, and valued support.

**Examples of Leadership Development Programs**

Many programs have been developed to enhance culture- or situation-specific skills. Training may occur in different formats, ranging from self-directed to team training or formal curricula of variable duration. Of the programs described in the literature, a large number are directed toward graduate medical education (residencies), mostly in response to requirements by the accrediting body (ACGME). Most of these programs have short and intense components (eg, day-long retreats) that may be followed by small elements disseminated throughout the training period.\(^\text{4, 16, 31}\)

Devising a curriculum at the professional school level is a greater challenge: the curriculum is tightly planned; therefore, such early career programs are most successful when integrated in the core curriculum, over the course of the entire duration of the degree program or planned during breaks from school. Most of the integrated programs are targeted to students who are enrolled in dual degree programs, such as MD/PhD\(^\text{39}\) and MD/MBA or MD/MPH,\(^\text{40}\) and therefore already have the expectation of a longer overall timeline. Other programs for health care students in medicine, dentistry, and nursing have been described.\(^\text{23, 41–43}\)

Public health schools have also started to address this need by offering specific leadership tracks beyond the core curriculum for public health that by its nature already includes some leadership components.\(^\text{44}\)

In more recent years, a number of specialty organizations have also developed specialty-specific leadership programs. A few examples include the American College of Surgeons Leadership Course for Surgeons,\(^\text{50}\) covering topics such as the attributes of a leader, aligning values and leading change, building and maintaining team effectiveness, and leading oneself. The American Academy of Pediatrics, together with the Johnson and Johnson Pediatric Institute, developed the Pediatric Leadership Alliance’s Young Pediatric Leaders for the 21st Century Training Program to provide leadership skills to pediatricians who are <40 years old or have <5 years in practice.\(^\text{51}\) The Association of American Medical Colleges offers a variety of development programs annually, including those for Early and Mid Career Women, Minorities, Aspiring Leaders, GME Development, and Executive Seminars for Associate Deans and Department Chairs.\(^\text{51}\)

These types of targeted programs are important and play key roles in the development of students, trainees, junior faculty, and practitioners. Nevertheless, there is a need for more national-level interdisciplinary and comprehensive leadership training programs: these are still relatively scarce as are leadership training opportunities for senior career individuals who have already attained administrative and leadership roles. National programs have access to a broader cohort of participants from diverse backgrounds and attract some of the best individuals in the country. This enhances the experience as participants and faculty bring their diverse experiences to the program and the networking element is expanded to a broad area. Programs available at this time include a
selection of excellent general leadership training programs (albeit mostly not directed toward health care) offered by the Center for Creative Leadership, based in Greensboro, NC,37,38,52,55 the Harvard Macy Program for Educators in Health Professions;44 and the Harvard leadership programs53 (Program for Chiefs of Clinical Services, Leadership Development for Physicians in Academic Health Centers, The International Leadership Development Program for Physicians, Leadership Strategies for Evolving Health Care Executives). These programs are intense and relatively short (1–2 weeks duration).

Few comprehensive leadership programs have undergone formal evaluation. Stoller48 noted that “true return on investment analysis of a leadership development program has yet to be done.” One exception is the ELAM. Now in its 20th year, ELAM is the most comprehensive national (and international) program available today, albeit specific to the academic sector, and open only to women. ELAM enrolled its first class in 1995 and has to date trained almost 900 senior-level women in academic medicine, dentistry, and public health. Evaluation has been an integral component of the program since its onset.10,12–14 The most recent report10 shows that:

“Leadership skills and knowledge increase after participation; a greater proportion of ELAM alumnae advance to higher levels of academic leadership than do comparison groups; and medical and dental school deans view the ELAM program as having a positive impact both on their schools and on participants.”10

In fact, 63.5% of the ELAM graduates report having achieved positions of department chair or greater. These included, at the time of publication, 14 of the 26 women deans at US accredited medical schools, seven of the eleven women deans at US dental schools, and one of the 13 women deans at US public health schools. Twenty-eight ELAM alumnae have held or currently hold positions of vice president, provost, or president of an academic institution of higher learning, and seven hold equivalent leadership positions in organizations outside academia (foundations, pharmaceutical industry). The ELAM model has also been applied to two independent leadership programs: FAIMER,33 as mentioned earlier, and Nonprofit Executive Leadership Institute;46 through the Bryn Mawr College Graduate School of Social Work and Social Research. The documented outcomes from ELAM suggest that similar programs, open to a wider population of senior health care leaders, would help in resolving the deficiencies described by many reports in the literature.

Benefits and Pitfalls of Leadership Training

Over the past 20 years, we have made considerable progress in the field of leadership development.

Leadership is a common topic of conversation in health care today, and there is an increasing body of literature and awareness of leadership development needs and opportunities. As noted earlier, a very significant step forward is that outcomes of comprehensive leadership training programs are being evaluated both in the academic environment10 and when the emphasis is on clinical providers.49

Graduates of these development programs are highly recruited nationally, and their knowledge is spread to diverse geographic areas. As a consequence of the experience during a development program, there is greater acceptance of executive and leadership coaching. This has finally created a culture where leaders no longer feel that they have to “go it alone.” Hopefully, this will also help to erase the long-standing perception that coaching is primarily a remedial tool, when one is “in trouble.” The availability of input from a trusted coach may prevent egregious errors, potentially saving a career, such as the situation of a department chair who wished to discuss reorganization of the clinical service with the hospital CEO. She had not discussed it with her boss, the medical school dean. Her coach reminded her that blindsiding a superior is never a good idea. The chair therefore shared her ideas with the dean before discussing them with the CEO and discovered that the dean had different ideas. The chair changed her strategy to align with the dean’s vision, which resulted in a plan that was acceptable to all. Given the impact of the reorganization, had she moved forward without first consulting the dean, it is likely that she would have been removed from her chair position.

Formal leadership development resources are growing in number and quality: the benefits of formal training are many and usually evident, albeit not always documented with objective data. Institutions and health care in general directly benefit by the increasing numbers of individuals already in leadership roles with formal training. With the rise of programs for students and postgraduate residents and fellows, a pipeline of physicians, nurses, and administrators with some formal leadership training is being created: this bodes well for succession planning and sustained organizational success of our health care systems. There are immediate benefits as well: development programs directed toward junior-level health care providers and/or faculty members have the added benefit of enhancing participants’ career and organizational satisfaction that often results in better retention, even if not all choose to advance to leadership roles.45,52 Leadership development courses can also be innovation incubators for the organizations: several programs, such as ELAM, the Emerging Physician Leaders Program, and the Cleveland Clinic Academy require that participants develop and implement a project to enhance institutional performance.

Significant individual benefits include personal growth, career satisfaction and advancement, and, very importantly, networking: participants who spend significant periods of time learning together often develop a special camaraderie, which encourages ongoing collaboration and synergy among colleagues and institutions.

Relying only on leadership training programs to develop new leaders is not free of risk to both the individual and the institution. First, not all leadership programs address the differentiating leadership competencies (especially emotional intelligence) that set true transformational and servant leaders apart, giving them the personal tools needed to move health care forward. Programs may not include key components that are covered by the more comprehensive curricula. Reliance on such a program alone may not truly prepare the individual for a proposed leadership role: in these cases, it may be wise for an individual to fill any gaps by participating in more than one training opportunity.

A second pitfall is the cost of training in times of limited resources: even short programs require significant resources and time away from work for both course faculty and participants. This becomes even more significant for a curriculum that follows the recommendation of providing opportunities to practice and
implement new knowledge during the program itself. Leadership theory (from didactic teaching) alone is not sufficient to “make” a leader nor is a practice/apprenticeship without the proper knowledge background: both must take place concurrently for concepts to become imprinted, but this requires that the program last an entire year or more (such as ELAM and EPLP). Obviously, this impacts costs significantly, whether covered by the institution or the individual. In either case, a substantial sum is at risk, should the participant not develop into a true leader, or not secure a position where the new skills may be applied. To my knowledge, there has not yet been an analysis comparing the costs of offering a program (including everything from faculty and administrative support to food, facilities, and time away from work) with the revenue savings that may result from the enhanced skills of the participants.

Stoller21,26 asked the questions: “What is the evidence that acquiring these competencies ties to better organizational and/or personal performance? What are the best strategies and learning formats in which to cultivate these competencies in emerging physician-leaders, and, at what point in one’s training are the competencies best developed?” Research carried out on the institutions and participants in the ELAM program gives some insight into the first question,16 with data that support the conclusion that both the organization and the individuals do, in fact, perform better. The authors found that “for the post-ELAM survey, composites of leadership knowledge and skills showed significant differences from presurvey means for all composites except Diversity Competence” (where fellows had initially rated their competence very high). The authors concluded that the data suggest that “confidence in knowledge and readiness for leadership increased between program start and the posttest, and that this increase is a predictable outcome of participation in the program.” Their quantitative and qualitative research also found that both the women who participated in the ELAM program and the institutions served by ELAM graduates had received significant benefit from the program. From their data, the concept of a “Leadership continuum” emerged, encompassing four elements such as 1) preparing for leadership, 2) transitioning into leadership, 3) sustaining success in a leadership position, and finally 4) transitioning again into another leadership position.

Stoller’s second question is more difficult to answer. Strategies and learning formats are as diverse as the programs themselves. However, some commonalities seem to emerge: programs that adopt diverse learning formats, adaptable to the different personality types of the participants and those that are spread out over time are more likely to allow the principles to be “lived” and experienced in such a way that they become second nature. Furthermore, as noted earlier, programs that require the implementation of a project of importance to both the trainee and his/her institution allow for a safe first experience in using the skills that will be important in future leadership roles.

The optimal timing of training is less clearly defined: Should leadership training take place early during professional school?28 If so, should it continue in some form through postgraduate and early faculty/practitioner experience?26 Or, should leadership training be reserved for later phases of a career, when experiences have already created a subconscious leadership mentality; clinical skills are mature and the health care providers can devote their full attention to developing new leadership competencies?10 We have not yet answered these important questions, but it is possible, even likely, that a combination of both may be ideal. Early career training happens at a time when many experiences that will shape the individual have not yet occurred. This limits the individual’s ability to completely comprehend and absorb those skills. However, generic competencies are readily understood and embedded at that time. Training as a more seasoned professional works upon a personal infrastructure where many of the building blocks are already in place. It is logical to assume that taken in sequence, both would have the greatest impact, over the course of career maturation, in developing highly skilled health care leaders. Such a model does not exist yet, but it is possible that some of the students who were exposed to early career training programs will eventually participate in senior leadership development courses as well. Tracking those individuals, if feasible, may provide valuable information.

Conclusion

We have made a great deal of progress in the acceptance and implementation of leadership development programs, although there is no uniformity of career stage, timing, duration, or curriculum. With some broad, comprehensive programs reaching maturity and evaluation data covering a 20-year period, there is more information available and more formally trained individuals in our health care systems, who are able to disseminate and role model the information they have learned. There are data to support the optimal methodology, and opportunities are increasing, although not yet reaching all individuals who might benefit. With resources and expertise, these obstacles may be overcome in reasonable time. Health care systems, academic institutions, and the practitioners themselves would be well served to find ways to make formal leadership development accessible and part of the routine career evolution for emerging health care leaders.

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References


35. Warren OJ, Carnall R. Medical leadership: why it’s important, what is required, and how we develop it. Postgrad Med J. 2011;87:27–32.


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KEYNOTE SPEAKER
Adebola Adeleye, DNP, RN, APN-C
Nurse Consultant
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The Impact of Comprehensive Case Management on HIV Client Outcomes

Mark Brennan-Ing, Jerome Ernst, Stephen E. Karpiak, Antonio Morretti, Leslie Rodgers, Liz Seidel, Daniel Tietz, and Doug Wirth

Summary

In 1990, New York State instituted Comprehensive Medicaid Case Management, also known as Target Case Management (TCM), for people dealing with multiple comorbid conditions, including HIV. The goal of TCM is to assist clients in navigating the health care system to increase care engagement and treatment adherence for individuals with complex needs. HIV-positive individuals engaged in care are more likely to be virally suppressed, improving clinical outcomes and decreasing chances of HIV transmission. The purpose of this study was to understand the impact of TCM management on outcomes for people with HIV.

Key Points

- Data was obtained from Amida Care, which operates not-for-profit managed care Medicaid and Medicare Special Needs Plans (SNPs) for HIV clients. Changes in clinical, cost, as well as medical and pharmacy utilization data among TCM clients were examined between January 2011 through September 2012 from the start of case management enrollment through the end of the study period (i.e., up to 6 months after disenrollment).
- Notable findings include increased CD4 counts for TCM clients over the one-year study period, achieving parity with non-TCM clients (i.e., Mean CD4 count > 500).
- When looking exclusively at TCM clients, there were increases in medication costs over time, which were concomitant with increased care engagement. Current findings demonstrate that TCM is able to achieve its goals of improving care engagement and treatment adherence.
- Government entities charged with securing and managing TCM and care coordination for people with HIV should provide thoughtful and reasonable guidance and oversight in order to maintain optimal clinical outcomes for TCM clients and reduce the transmission of HIV.

WITH THE AFFORDABLE CARE ACT (ACA) implementation and many of those with HIV accessing care through the expansion of Medicaid and access to other programs resulting from these reforms, there is concern about the fate of case management programs for those with HIV.\(^1\) Due to ACA, there may be restrictions in case management and other supportive services for people with HIV which have been historically provided through the Ryan White Program.\(^2\) For those concerned with HIV care delivery, losing support for “wrap around” non-medical services such as case management is contraindicated by the available evidence that these services are effective in keeping people with HIV engaged in care and adherent to treatments.\(^3\), \(^4\)

Among the 1.2 million people in the U.S. infected with HIV, only 40% are engaged in care, 37% prescribed anti-retroviral therapy (ARV), with 30% achieving the targeted clinical outcome of viral suppression.\(^3\) Consequently, approximately 840,000 people in the U.S. are not receiving effective HIV care as evidenced by a lack of viral suppression. This finding is critical since those who are virally suppressed have better health outcomes and lower risk of HIV transmission.\(^3\) Research shows that the epidemic could collapse through the reduction of individuals with high HIV viral loads who are the most likely to infect others.\(^6\)-\(^8\) The failure to achieve better rates of viral suppression can be attributed to a synergy of complex factors including behavioral health problems, unstable housing, incarceration, poor health literacy, and the economic, food, and housing insecurities endemic to poor communities of color which have the highest rates of HIV incidence.\(^6\)-\(^10\)

Case Management

Case management comprises a subset of care coordination models. Successful care coordination models demonstrate accountability for the organization of patient care, build respectful relationships and agreements among care partners, support patients regardless of where they access health care, and establish good communications among care partners.\(^11\), \(^12\) During the early years of the HIV epidemic, New York State implemented case management services for people with HIV having complex care needs.\(^13\) Case management uses client-centered, multi-step processes which, “ensures coordination and expedient access” to an array of medical and social supports,\(^14\) and acts as a megaservice that bridges HIV and non-HIV resources in complex and fragmented service environments.\(^15\) Case management clients are more likely to have
lower incomes and education, to be uninsured or publicly insured, to have a history of drug use, and to be racial/ethnic minorities, women or heterosexuals. The goals of case management are to achieve care engagement and treatment adherence by helping the client to function independently through access to housing and other supportive services.

Targeted Case Management in New York State

The Comprehensive Medicaid Case Management Program (also known as COBRA Case Management or Targeted Case Management [TCM]) began in 1990 in New York State. TCM targeted Medicaid-eligible populations, including HIV-infected persons, with multiple comorbid conditions including behavioral health issues. TCM utilizes a team of case managers and paraprofessionals to provide comprehensive intensive management services. TCM was designed for people with HIV who require frequent contact with care providers and have difficulty accessing and sustaining medical and supportive services. The goals of TCM are to: 1) provide access to services that foster independence and self-sufficiency; 2) ensure adherence to care and treatment; 3) prevent or delay institutionalization; 4) increase universal access to HIV-related services; and 5) promote early intervention—disease prevention. The TCM program has served approximately 14,000 people with HIV. To date case management programs, including TCM, have demonstrated positive outcomes in terms of increased attention to client needs and an uptake in related medical and social services, better care engagement, improved ARV prescription rates and adherence, and a significant increase in CD4 counts between first and second assessment (median = 6.2 months, range = 2.3 to 26.8 months).

Purpose and Rationale

We sought to examine the effectiveness of TCM services for people with HIV in New York State with regard to increased care engagement and improved treatment adherence by analyzing changes in clinical, cost, and utilization data among TCM clients over the course of their case management enrollment.

MATERIALS AND METHODS

Source of Data and Procedures

Data was obtained from Amida Care. Amida Care operates not-for-profit Medicaid and Medicare HIV Special Needs Plans (SNPs), providing managed care to HIV-positive people in New York City. Amida Care’s mission is to provide comprehensive care and coordinated services that facilitate positive health outcomes for its over 6,000 members. Amida Care was founded by seven AIDS Service Organizations in New York City (Community Health Network, Harlem United, Housing Works, Project Samaritan AIDS Services, Inc., Promesa, Inc., St. Mary’s Episcopal Center, Inc., and Village Care).

The Amida Care database provides a consolidated source of member and claims information which is permanently maintained (i.e., HIV status, case management needs, contacts with the plan, outreach worker contacts, care coordination clinical notes, and CD4 count). Data on all members receiving TCM as determined by billing and procedure codes were extracted from the Amida Care database to provide the information for the analyses described below (N = 2072), from the start of the study period (January 2011) to the end of the study period (September, 2012). This study period was chosen to examine case management outcomes in the period immediately preceding the implementation of Medicaid Redesign in New York State in September, 2012. This time period was selected as it occurred prior to the major reorganization of TCM delivery systems through Medicaid Redesign, as such major systematic change had the potential to affect the provision and efficacy of TCM, as well as our ability to examine the effectiveness of TCM on client outcomes during Medicaid reorganization.

Prior to analyses, all data was de-identified. Research protocols were approved by the Gay Men’s Health Crisis (GMHC) Institutional Review Board. Because this was a secondary analysis of de-identified data, no consent was obtained. The average age of the TCM sample was 48.0 years, 33% were women and 67% were men.

Measures

To better understand the impact of TCM on clients over time, cost, utilization and clinical outcomes were examined. These included actuarial risk scores derived from the IMPACT PRO proprietary software package, which provides an estimation of future member medical costs based on patient age, gender, physical and mental health comorbidities, and levels of service utilization. This system employs multidimensional episode-based predictive modeling through the combination of clinical and administrative claims data. Short-term change in risk scores can be driven by greater service utilization and newly diagnosed comorbid conditions. We also examined actual annualized patient total care and medication costs. To assess care engagement and treatment adherence, we examined utilization (number of emergency room, inpatient hospital, outpatient hospital, mental health, and primary care visits) and prescription fills for ARVs and psychotropic medication. We focused on ARVs and psychotropic medications since improving HIV treatment adherence and behavioral health care are the main targets of the TCM program, and these were the medication types most likely to show change due to TCM. With regard to utilization measures, we also calculated the ratio of each type of utilization to total health care utilization (e.g., Emergency Room Ratio = Number Emergency Room Visits/Total Number of Health Care Visits) to assess the intensity of each type of utilization, as well as the median time between visits to assess frequency of utilization. Lastly, we examined CD4 T-cell counts to gauge the effects of improved care engagement and treatment adherence resulting from TCM engagement.

Design and Analysis

The present paper consisted of an observational study of Amida Care members receiving TCM during the study period. TCM clients are not homogenous and may utilize case management services differently with regard to volume, frequency and duration. To account for this heterogeneity and to identify patterns in case management utilization, cluster analysis was performed with the goal of identifying groupings such that TCM clients within the same group utilized TCM services similarly, and clients between groups displayed significantly different case management utilization patterns. Three indicators of case management utilization were used to cluster members: 1) the total number of TCM visits during the study period; 2) the median time between consecutive TCM visits; and 3) the time between the first and final case management
visits. These indicators were chosen to capture the temporal nature of the data of volume, frequency and duration of TCM services, respectively. The k-means algorithm with a four-cluster solution provided the best interpretability of utilization patterns. This analysis did not address utilization of non-TCM services.

Statistically significant change over time was examined with repeated-measures of multivariate analysis of variance (MANOVA), with the TCM utilization pattern typology derived from cluster analysis utilized as a between-subjects factor to examine if categorical differences in TCM utilization were related to study outcomes. The examination of IMPACT PRO actuarial risk scores, total costs, and medication costs, examined these variables from the start of TCM enrollment to the end of the study period. Analysis of change in prescription medication fills (ARVs and psychotropics) considered the number of prescriptions filled during the first 3 months of the study period (January, February and March 2011) compared with the final 3 months (July, August, and September, 2012). The service utilization analysis examined the total number of services by provider type and TCM utilization pattern for the entire study period. The analysis of change in CD4 counts examined 3 time points: 1) TCM Enrollment; 2) TCM case closure; and 3) End of Study Period (September 30, 2012). The study period comprised 638 days. Overall, the average median duration of TCM enrollment from the start of the study period to TCM case closure was 224 days.

We also compared TCM members to all Amida Care members not receiving TCM (N = 937) who had CD4 values available during the study period (i.e., beginning, mid-point, and end) using a quasi-experimental design of pre-existing groups. Both TCM members and non-TCM members were HIV-positive and eligible for Medicaid. This analysis examined the impact of TCM participation on this indicator of immune function using repeated-measures MANOVA (TCM yes/no X Time) to assess the relative impact of case management services in the context of this population.

RESULTS

TCM Utilization Patterns

Four independent patterns of TCM utilization emerged from the cluster analysis. The four orthogonal groupings were labeled as long-term moderate-intensity, moderate-term moderate-intensity, short-term low-intensity and short-term high-intensity. Long-term moderate-intensity TCM clients (i.e. Long-Moderate) evidenced higher means for duration of TCM service utilization during the study period and average median times between consecutive TCM visits (i.e., intensity). The moderate-term moderate-intensity group (i.e., Moderate-Moderate) exhibited an average number of TCM visits, duration of time in care, and average median times between consecutive visits. Clients within short-term low-intensity (i.e., Low Intensity) did not use TCM services for a long period of time and had a low number of service visits. The short-term high-intensity group (i.e., High Intensity) displayed a high number of TCM visits during a short duration of time.

Change in Outcomes Over Time

Impact Pro Actuarial Risk Scores

Among TCM clients, there were significant differences in

Table 2. Change in Total Costs and Medication Costs over TCM Enrollment Period

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Medication Mean</th>
<th>SD</th>
<th>Total Mean</th>
<th>SD</th>
<th>Medication Mean</th>
<th>SD</th>
<th>Total Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-Moderate</td>
<td>471</td>
<td>11,441</td>
<td>13,761</td>
<td>20,171</td>
<td>22,566</td>
<td>28,066</td>
<td>15,379</td>
<td>37,755</td>
<td>27,493</td>
</tr>
<tr>
<td>Moderate-Moderate</td>
<td>169</td>
<td>9,792</td>
<td>9,854</td>
<td>20,582</td>
<td>24,979</td>
<td>28,187</td>
<td>17,490</td>
<td>38,028</td>
<td>25,472</td>
</tr>
<tr>
<td>Low Intensity</td>
<td>178</td>
<td>9,616</td>
<td>7,369</td>
<td>22,633</td>
<td>22,297</td>
<td>28,617</td>
<td>13,147</td>
<td>42,076</td>
<td>32,800</td>
</tr>
<tr>
<td>High Intensity</td>
<td>441</td>
<td>11,071</td>
<td>11,510</td>
<td>20,162</td>
<td>19,374</td>
<td>29,237</td>
<td>29,682</td>
<td>37,796</td>
<td>39,825</td>
</tr>
<tr>
<td>Total</td>
<td>1,259</td>
<td>10,857</td>
<td>11,791</td>
<td>20,537</td>
<td>21,726</td>
<td>28,590</td>
<td>21,461</td>
<td>38,404</td>
<td>32,788</td>
</tr>
</tbody>
</table>

Note: Multivariate: F (14,5414) = 54.64, p < .001. Differences by Time: F (2,2707) = 320.13, p < .001. Differences by TCM Pattern Group: F (6,5414) = 4.10, p < .001. TCM Group X Time: F (6,5414) = 0.68, NS.
participants estimated healthcare utilization costs as indicated by Impact Pro actuarial risk scores by type of TCM utilization, and a significant increase in estimated costs from first to final average risk scores (Table 1). This increase over time was observed in all four groups; Long-Moderate (7.1 vs. 8.6), Moderate-Moderate: (7.5 vs. 8.6), Low Intensity (8.3 vs. 9.5), and High intensity (7.3 vs. 8.5). Collapsing across all TCM utilization groups, the average actuarial score rose from 7.4 to 8.7 at the end of the study period. This short-term change in estimated healthcare utilization costs is consistent with greater service use and care engagement during the period of TCM enrollment, which is in line with the goal of the TCM program.

### Medication and Total Costs

Medication costs among TCM participants differed significantly by utilization pattern and increased significantly from initial to final costs ($10,857 and $28,590, respectively). Total Costs were significantly increased over time in all TCM utilization groups, on average $20,537 rising to $38,404 (Table 2). The increase in average total costs was observed in each of the four groups; Long-Moderate ($20,171 vs. $37,775), Moderate-Moderate: ($20,582 vs. $38,028), Low Intensity ($22,633 vs. $42,076), and High Intensity ($20,162 vs. $37,796). The increased total costs over the study period can be attributed to increased health care utilization and medication use.

### Table 3. Number of Visits by Type: Emergency Room, In-patient, Mental Health, Out-patient and Primary Care

<table>
<thead>
<tr>
<th>Type of Visit</th>
<th>Long-Moderate</th>
<th>Moderate-Moderate</th>
<th>Low Intensity</th>
<th>High Intensity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Emergency Room</td>
<td>1.48</td>
<td>2.61</td>
<td>1.46</td>
<td>2.59</td>
<td>2.53</td>
</tr>
<tr>
<td>In-patient</td>
<td>.85</td>
<td>2.09</td>
<td>.91</td>
<td>1.80</td>
<td>1.06</td>
</tr>
<tr>
<td>Mental Health</td>
<td>7.16</td>
<td>13.49</td>
<td>6.96</td>
<td>11.08</td>
<td>6.16</td>
</tr>
<tr>
<td>Out-patient</td>
<td>1.96</td>
<td>5.30</td>
<td>1.91</td>
<td>5.06</td>
<td>.76</td>
</tr>
<tr>
<td>Primary Care</td>
<td>12.01</td>
<td>8.60</td>
<td>12.85</td>
<td>8.72</td>
<td>14.19</td>
</tr>
</tbody>
</table>

Note. Long-Moderate N = 360; Moderate-Moderate N = 92; Low Intensity N = 108; High Intensity N = 283; Total N = 843. Multivariate: F (15,2511) = 2.13, p < .01.

doi:10.1371/journal.pone.0148865.t003

### Table 4. Ratio of Visits by Type of Visit: Emergency Room, In-patient, Mental Health, Out-patient, and Primary Care

<table>
<thead>
<tr>
<th>Type of Visit</th>
<th>Long-Moderate</th>
<th>Moderate-Moderate</th>
<th>Low Intensity</th>
<th>High Intensity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Emergency Room</td>
<td>.08</td>
<td>.15</td>
<td>.07</td>
<td>.11</td>
<td>.11</td>
</tr>
<tr>
<td>In-patient</td>
<td>.04</td>
<td>.09</td>
<td>.03</td>
<td>.07</td>
<td>.04</td>
</tr>
<tr>
<td>Mental Health</td>
<td>.19</td>
<td>.21</td>
<td>.20</td>
<td>.22</td>
<td>.19</td>
</tr>
<tr>
<td>Out-patient</td>
<td>.05</td>
<td>.10</td>
<td>.04</td>
<td>.10</td>
<td>.02</td>
</tr>
<tr>
<td>Primary Care</td>
<td>.65</td>
<td>.28</td>
<td>.65</td>
<td>.28</td>
<td>.63</td>
</tr>
</tbody>
</table>

Note. Long-Moderate N = 360; Moderate-Moderate N = 92; Low Intensity N = 108; High Intensity N = 283; Total N = 843. Multivariate: F (12,2514) = 1.73, NS.

doi:10.1371/journal.pone.0148865.t004

### Table 5. Median Time between Visits by Type of Visit: Emergency Room, In-patient, Mental Health, Out-patient, and Primary Care

<table>
<thead>
<tr>
<th>Type of Visit</th>
<th>Long-Moderate</th>
<th>Moderate-Moderate</th>
<th>Low Intensity</th>
<th>High Intensity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>All Kinds of Visits</td>
<td>355</td>
<td>20.8</td>
<td>17.1</td>
<td>91</td>
<td>22.7</td>
</tr>
<tr>
<td>Emerg-ency Room</td>
<td>231</td>
<td>30.3</td>
<td>23.6</td>
<td>58</td>
<td>35.1</td>
</tr>
<tr>
<td>In-patient</td>
<td>219</td>
<td>29.4</td>
<td>25.3</td>
<td>52</td>
<td>31.5</td>
</tr>
<tr>
<td>Mental Health</td>
<td>300</td>
<td>26.8</td>
<td>22.3</td>
<td>66</td>
<td>24.4</td>
</tr>
<tr>
<td>Out-patient</td>
<td>285</td>
<td>16.9</td>
<td>16.5</td>
<td>71</td>
<td>16.7</td>
</tr>
<tr>
<td>Primary Care</td>
<td>351</td>
<td>31.6</td>
<td>18.2</td>
<td>88</td>
<td>32.9</td>
</tr>
</tbody>
</table>

Note. All Kinds of Visits: F (3,833) = .43, NS. Emergency Room: F (3,534) = .71, NS. In-patient: F (3,493) = 2.05, NS. Mental Health: F (3,683) = .31, NS. Out-patient: F (3,604) = .98, NS. Primary Care: F (3,814) = 1.87, NS.

doi:10.1371/journal.pone.0148865.t005
Health Care Visit Frequency

Among TCM clients there were significant differences in the number of medical visits based on TCM utilization type (Table 3). Low Intensity had the highest average trips to the emergency room (2.5) compared to all other groups: Long-Moderate (1.5), Moderate-Moderate (1.5), and High Intensity (1.7). Low Intensity also had the most in-patient visits compared to the other groups (1.1). Long-Moderate and Moderate-Moderate users had the highest number of mental health visits (7.2 and 7.0, respectively) as compared with Low Intensity (6.2) and High Intensity groups (5.7). With regards to outpatient hospital visits, averages were similar for Long-Moderate (2.0), Moderate-Moderate (1.9), High Intensity (2.0), and were lowest for Low Intensity clients (0.8). Low Intensity had the most primary care visits (14.2) and Moderate-Moderate users had followed by: Moderate-Moderate (12.9), High Intensity (12.7), and Long-Moderate (12.0). There were no significant differences in ratios of visits by visit type among TCM utilization groups, suggesting that emergency room, in-patient, mental health, out-patient, and primary care visits were used with equal intensity by all TCM clients (Table 4). Additionally, there were no significant differences in median time between medical visits for any type of services (Table 5).

Prescription of ARV and Psychotropic Medications.

The number of psychotropic prescriptions filled during the first 3 months and the last 3 months did not change significantly (0.5 and 0.5, respectively), and the average number did not differ significantly by intensity group (Table 6). There was not a significant difference between changes in prescriptions for ARV medications from the first 3 months to the last 3 months (4.6 and 4.9, respectively), but there were differences by TCM utilization group; Low Intensity clients reported the greatest number of ARV prescriptions on average during both periods (Table 7). Thus, we did not observe any significant change in ARV or psychotropic medication use over the course of TCM enrollment, but the number of ARV prescriptions was related to the type of TCM utilization. Because the number of ARV and psychotropic prescriptions did not change during TCM enrollment, the change in medication costs reported earlier are likely due to an increase in non-ARV/psychotropic medications prescribed for other comorbid conditions.

There was a significant increase in CD4 Count from enrollment in TCM, to TCM case closure, and to the end of the study period (288.7, 295.8, and 503.0, respectively). On average, the first CD4 measurement occurred in 244 days after the start of the study period. The last CD4 measurement while in TCM was at 523 days on average, or a difference on average of 279 days between first and last CD4 count measurement while enrolled in TCM. The average difference between the last TCM CD4 measurement and the end of the study period was 115 days. This increase in CD4 count from the beginning to the end of the study period was observed in TCM utilization groups; Long-Moderate (295 vs. 500), Moderate-Moderate (278 vs. 545), Low Intensity (299 vs. 462) and High Intensity (289 vs. 503). Changes in CD4 count over time did not vary significantly by TCM utilization patterns (Table 8).

Comparison of CD4 Counts: TCM and Non-TCM Clients

When comparing changes in average CD4 counts, we included age and gender as covariates in preliminary analysis as these factors differed significantly between those enrolled in TCM versus those not enrolled in TCM. TCM members compared to non-TCM members were significantly older on average, 48 years.
and 47 years, respectively \( [t(3027) = 3.37, p < .001] \), and had a lower proportion of men, 67% and 77%, respectively \([X^2(1) = 29.67, p < .001]\). However, neither age nor gender exhibited significant effects in the multivariate model \( (p = .19 \text{ and } p = .79, \text{ respectively}) \), so we removed these factors from the analysis and report the unadjusted means below. Non-TCM clients had significantly higher CD4 levels compared to TCM clients at first and intermediate assessments (514.4 vs 288.7, and 515.2 vs 295.8, respectively). However, by the end of the study period the TCM group on average had achieved near parity with the non-TCM group with CD4 counts of 503.0 and 525.1, respectively (Table 9).

**DISCUSSION**

Our examination of case management utilization patterns revealed four distinct typologies; typologies that differed based on the frequency, volume and duration of TCM engagement. These patterns suggest, in part, that TCM services had been responsive to variable client needs, and it is likely that this typology is related to client characteristics, including comorbid health conditions, behavioral health issues, and housing instability. For example, Low Intensity clients had the highest average actuarial risk scores and total costs both before and after TCM engagement. This group also had the highest levels of emergency room, inpatient hospital, and primary care utilization, but were among the lowest users of mental health services. Taken together these findings suggest that the Low Intensity TCM clients may represent the most complex cases among this cohort of TCM users, which may be related to their relative lack of engagement in case management services and behavioral health care compared to the other three groups.

With regard to changes over time as a whole, findings support the hypothesis that TCM improves clients’ engagement with care and treatment adherence as evidenced by significant increases in actuarial risk scores (i.e., a proxy for increased service utilization), medication costs, and total costs. Given that we did not observe a significant change in the number of psychotropic or ARV medications, increased medication costs can be attributed to treatment for other comorbid conditions. This is a positive finding as it implies better screening and diagnosis of comorbidities through engagement with health care providers. The most telling evidence, however, was the significant increase in average CD4 T-cell counts over the study period with the TCM group reaching parity with non-TCM members. Since we did not observe that TCM clients filled more ARV prescriptions following enrollment, the most likely explanation is that they were more adherent and/ or may have been placed on more efficacious ARVs through regular engagement with health care providers as indicated by the restoration of immune function.

**Limitations**

While the current study has provided important evidence regarding the effectiveness of TCM, our study is limited as we examined clients from only one managed care plan, and findings may not be generalizable to all clients receiving TCM. In addition, demographic characteristics of the sample were restricted to age and gender, which did not allow analysis of how race/ethnicity and other factors may have been related to case management client outcomes. We also did not have data available on viral load or the specific ARV regimens that were prescribed to clients, which could have provided additional evidence regarding the efficacy of TCM.

**Policy and Program Implications**

As the population with HIV grows older, their need for supportive services are likely to grow,\(^{22-25}\) rendering the types of support provided by TCM increasingly important.

**Medicaid Redesign and Targeted Case Management in New York State**

The New York State Medicaid Redesign effort was launched...
in 2011 to ensure future fiscal sustainability of this program, and is having a substantial impact on the way services are delivered and reimbursed for the almost 130,000 New Yorkers living with HIV. These reforms include developing Health Homes supported through ACA funds, and adopting the Health Home model of service delivery to provide case management. The Health Home model represents a paradigm shift from a focus on episodic illness care to a coordinated care model that encompasses acute, chronic and preventive care across the lifespan. However, relocating case management services into Health Homes that may have little experience meeting the complex needs of people with HIV may be problematic. Failure to keep these clients adherent to ARVs and engaged in care would likely result in a cascade of poor health outcomes, increased medical expenditures due to increased morbidity, and other costs. Better control of HIV disease through enhanced care engagement should improve clinical outcomes which would result in long-term cost savings. Aside from individual quality-of-life concerns, these sequelae would severely undercut the goal of reducing Medicaid costs. Initial data show that for New York State Medicaid patients without prior case management, Health Home enrollment is associated with decreased emergency room visits and hospital admissions, and increased primary care visits. However, no data are available to assess the impact Health Home enrollment on clients who had been receiving TCM, so it is difficult to evaluate the success of this model at present.

National HIV/AIDS Strategy and “Ending AIDS”.

As noted in the National HIV/AIDS Strategy (NHAS) successful HIV treatment results in lower community viral loads, leading to a lower incidence and prevalence of HIV. HIV Case management is an important tool in implementing the NHAS, and is also crucial to current efforts to “End AIDS” which involve expanded testing, care engagement, and ARV adherence to control and prevent HIV infection. Reasonable regulatory expectations and oversight ought to recognize that what were formerly TCM clients with HIV remain a special population whose complex needs cannot be met by a “one size fits all” approach.

As greater numbers of people with HIV secure health insurance coverage through the ACA’s health exchanges and Medicaid expansion, increased attention to successful care engagement, focused treatment adherence, and effective care coordination models are required from stakeholders, including states, insurance plans, medical and social service providers, and beneficiaries. State Medicaid directors and health plan executives will see benefits from valuing targeted services that facilitate access and retention in care by those individuals with the most complex physical and behavioral health care.

Since many states do not invest Medicaid dollars in the full range of services necessary to achieve better health outcomes, flexible federal funding streams such as Ryan White will be critical to not only achieving the NHAS, but to redesigning health care systems to insure better health outcomes and mitigate expenditures. By advancing effective engagement and retention in care, such as New York State’s TCM program, stakeholders reap interrelated and compounded benefits including better health outcomes, avoiding costly long-term care services, increasing the value of ongoing medication and treatment expenditures, and preventing HIV infection by reducing community levels of viral load. By preventing new infections, New York State alone stands to avoid future per patient lifetime HIV care costs totaling over $400,000. In order to achieve these goals, investing in care coordination services for individuals with most complex needs such as HIV, should not be reduced in an effort to address the needs of other emerging populations.

Conclusions

A recent study of health care providers underscores concerns as case management for people with HIV migrates to the Health Home model, including continuity of care, sensitivity to the client with HIV, and providers’ understanding of the constellation of stressors such as mental illness, substance use, poverty, and endemic stigma that affect this population. Sensible and stakeholder-driven Medicaid redesign and the implementation of Health Home model represents an important opportunity to remake a significant part of the health and human services delivery system serving people with HIV. This effort could serve as a model to other states seeking to reduce their Medicaid and other health care expenditures. In this process, however, we urge careful attention to vulnerable, high-needs individuals, such as people with HIV who require TCM. In 2012 the International Association of Physicians in AIDS Care, examined data from 325 published studies, and provided guidelines for improving entry, retention in care, and adherence. One of the primary recommendations was the need for “strengths-based case management.” In our view, such careful attention includes providing thoughtful and reasonable guidance and oversight by government entities charged with securing and managing comprehensive case management and care coordination for people with HIV.

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Author Contributions

Conceived and designed the experiments: MBI, LS, JE, DT, LR, SK. Analyzed the data: MBI, AM, LS. Contributed reagents/materials/analysis tools: JE, DW, AM. Wrote the paper: MBI, LS, LR, JE, DW, DT, AM, SK.

References

1. McColl WD. Reauthorization and the legislative battles ahead. HIV Specialist 2013;5:2
2. Kates J. Implications of the Affordable Care Act for people with HIV infection and the Ryan White HIV/AIDS program:


30. Broadus MR, Hanna CR, Shumann C, Meier A. “She makes me feel that I’m not alone”: Linkage to Care Specialists provide social support to people living with HIV.” AIDS care 2015; epub April 9th.


Certified Managed Care Nurse

Who can become a CMCN?
- RNs
- LPNs
- LVNs
- NPs

What does a CMCN DO?
- They often work with a diverse group of patients which may include the elderly and those who participate in government programs, such as Medicare and Medicaid.
- The CMCN may develop and follow through with comprehensive plans for individual care needs.
- The overall goal of a Managed Care Nurse is patient advocacy and education.
- CMCNs focus on making sure patients aren’t undergoing unnecessary medical procedures. They encourage patients to seek preventive medical care.

What areas can they work in?
- Utilization Management
- Quality Management
- Disease Management
- Case Management

Where do they work?
- HMOs, PPOs, clinics, hospitals, community health centers, government agencies, social service programs.

 Obtaining certification shows employers you have gone the extra length to bring your education to a higher level. Some employers will offer their employees incentives for becoming certified.

The American Board of Managed Care Nursing (ABMCN.org) administers the CMCN exam & certification.

The American Association of Managed Care Nurses (AAMCN.org) offers a Home Study course that prepares you to take the CMCN exam.

AAMCN ABMCN
http://www.abmcn.org
http://www.aamcn.org/certification.html
https://www.discovernursing.com/specialty/managed-care-nurse
http://www.nurse.org/articles/104/cmcn-certified-managed-care-nurse-jobs
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TRENDING ONLINE

Trend Watch: 2017 Will Bring Shifting Philosophies in Health Utilization Management

URAC

THERE’S A CHANGING PHILOSOPHY IN HEALTH utilization management today, away from simply thinking of it as a cost-containment approach and more toward using it as a proactive tool to achieve the oft-repeated mantra of the right care for the right patient at the right time. Data and automation are increasingly being used to make that shift possible, while also putting greater power in providers’ hands to make medical decisions.

As we look to 2017, here’s what three top industry leaders see as the top trends, challenges and opportunities facing health utilization management in the coming year:

Diane Smeltzer, VP of Clinical Programs, Anthem, Inc.: “[The trend is] really about provider enablement. The best person to be managing a patient’s care is their provider. That’s who the patient will respond best to. … We are looking at transitioning some of the work we traditionally would do to what we envision our provider partners doing in the future, [including] utilization management. … We help from the data and analytics standpoint in terms of doing continual analysis; for instance, what do we do prior authorizations on and why? … We may say, there’s something going on with this particular surgery or procedure because we deny it a lot. How can we work with our providers to ensure they are giving us the correct information the first time around? There’s a lot of information we can provide to them, and help them use that data to better care for patients.

“Another big opportunity is around technology. We are trying to move toward more automation around utilization management. We have an opportunity and challenge in that we are putting in place tools for providers to utilize, starting with an interface on our provider portal where providers can enter information and request a PA without having to talk to anyone. It’s more efficient for them and for us.

“The second part is that we are automating some of the decision-making. We can take requests for certain prior authorizations and code them into the system with algorithms so that as the provider answers the questions, they get approval without having to talk to anyone in our organization. … It’s about being easy to do business with and putting the care of the patient in the provider’s hands.”

Caroline Carney, M.D., Chief Medical Officer, Magellan Health: “The first area under consideration is the effect of parity on utilization management programs. At Magellan, we embrace parity and want to ensure all patients are treated equally regardless of their desire to pursue behavioral health or medical treatment. All of our utilization management programs have been under review to meet parity guidelines. … We review all cases individually to be sure that the care being given is individualized.

“[The trend is] a shift away from traditional utilization management, looking at it as only a tool to control costs or control unneeded care, and more toward developing the right networks and case management for those who need it. … Instead of putting utilization management in front of all services for all providers, there are better ways of doing quality checks on the back end and looking at metrics that would suggest that the member is either being over treated or inappropriately treated. I think you will see a shift in that direction across the country.

“The greatest challenge is lack of full and timely data. Many states allow filing limits up to a year for providers that are on paper claims. The greatest opportunity is the flip side, looking at the amount of data we can potentially have that would guide and direct best practices, and in the right hands help us understand at a population level and an individual level what the quality of behavioral healthcare can look like in the future. That’s tremendously exciting.”

George Furlong, URAC Board Member representing the American Association of Preferred Provider Organizations (AAPPO); SVP, Sedgwick Claims Management Services, Inc.: “Employers, carriers and state regulatory agencies are paying more attention to the possible overuse and disruption to medical care delivery of UR services. Additionally, there has been talk in certain jurisdictions about separating URO’s from the payer. While this could certainly benefit the system, those entities that overuse these services should be the target. A good URO will evaluate and understand how best to manage treatment plans in compliance with evidence-based medicine without undue delays or overly aggressive denials of care. States should approach the same way. Additionally, state-mandated reporting and turnaround time for authorization could be impacted if URO’s are required to be separate from a payer. The biggest challenge is risk to payers who offer these services by not allowing yet holding them responsible for timely delivery of response to requests for authorization. The biggest opportunity is streamlining the process through data analytics and recognizing top performing doctors.”

The bottom line? All of these trends point to how critical best practices in utilization management will be in the changing healthcare market. Greater cooperation between providers and payers, strategic use of data and a patient-first mentality will guide the role of utilization management in the delivery of value-based care.

This article originally appeared in The URAC Report and is reprinted with permission from URAC. http://blog.urac.org/trend-watch-2017-will-bring-shifting-philosophies-in-health-utilization-management.
Novel Drugs Summary 2016
U.S. Food and Drug Administration, Center for Drug Evaluation and Research

Summary
Each year, the Center for Drug Evaluation and Research (CDER) approves hundreds of new medications, most of which are variations of previously existing products, such as important new dosage forms of already-approved products, or cost-saving generic formulations. These new products contribute to quality of care, greater access to medication, more consumer choice, and a competitive marketplace that enhances affordability and public health. However, a small subset of these new approvals, referred to as novel drugs, are among the more innovative products that often help advance clinical care to another level. At the end of each calendar year, CDER summarizes these new products.

Key Points
• In calendar year 2016, FDA’s Center for Drug Evaluation and Research (CDER) approved 22 novel drugs, approved either as new molecular entities (NMEs) under New Drug Applications (NDAs) or as new therapeutic biologics under Biologics License Applications (BLAs).
• This document represents a broad overview of CDER approvals of novel drugs for calendar year 2016. More important than the quantity of novel drugs approved by CDER in 2016 is their medical value and the important new roles they are serving to advance patient care.

INTRODUCTION
Welcome to the FDA’s Center for Drug Evaluation and Research’s (CDER’s) sixth annual Novel Drugs Summary.

Our annual summary reports the number of novel drugs approved. However, we also focus on the medical value of many of these new drugs, their contributions to enhanced patient care, and the various regulatory tools CDER used to help ensure their safe and efficient development and approval. In 2016, novel approvals include the first treatment for patients with spinal muscular atrophy, the first drug approved to treat Duchenne muscular dystrophy, a new drug to treat hallucinations and delusions in some people with Parkinson’s disease, a new drug to treat patients with a rare chronic liver disease known as primary biliary cirrhosis, and two new treatments for patients with hepatitis C. The field also includes new treatments for patients with ovarian cancer, bladder cancer, soft tissue sarcoma, and chronic lymphocytic leukemia—as well as two new diagnostic agents for detecting certain forms of cancer.

All of these newly approved products were required to meet our rigorous premarket safety standards—and they will all be part of a strong postmarket safety surveillance system watching how they perform after they are more widely used by larger patient populations. Complementing this year’s summary of novel approvals is CDER’s recent report titled, Drug Safety Priorities 2015-2016, which details the Center’s key safety priorities as well as the depth and versatility of drug safety initiatives across CDER and the FDA. The report includes program updates and milestones achieved since the start of 2015, describing a variety of the FDA’s most important efforts in drug safety science, surveillance, and oversight.

We hope our Novel Drugs summary provides an appreciation of the expected impact that many of the novel drug approvals of 2016 will have on patient care, as well as the valuable role CDER played in helping to bring these drugs to market.

Janet Woodcock, M.D.
Director, Center for Drug Evaluation and Research

CDER’S 2016 NOVEL DRUG APPROVALS
22 Novel Drugs
In calendar year 2016, FDA’s Center for Drug Evaluation and Research (CDER) approved 22 novel drugs, approved either as new molecular entities (NMEs) under New Drug Applications (NDAs) or as new therapeutic biologics under Biologics License Applications (BLAs). Listed below are CDER’s novel drugs of 2016.*

Novel drugs are often innovative products that serve previously unmet medical needs or otherwise significantly help to advance patient care and public health. NMEs have chemical structures that have never been approved before. However, in some cases an NME may have actions similar to earlier drugs and may not necessarily offer unique clinical advantages over existing therapies. This report summarizes all of the 2016 NME and novel BLA approvals, emphasizing those that offer new and innovative treatments to patients in need.

The vertical bars in Figure 1 indicate the number of novel drugs approved by CDER in each year of the past decade. CDER
approved 22 novel drugs in 2016. From 2007 through 2015, CDER has averaged about 30 novel drug approvals per year.

Applications for New Approvals Remain Steady
CDER approved a lower than average number of novel drugs in 2016, but the number of applications for these drugs that sponsors have submitted over time has remained relatively stable.

The points connected by lines in the graph below indicate the number of new NDA and BLA applications for NMEs and new therapeutic biologics CDER has received and filed for approval during the last 10 years. From 2007 through 2015, CDER filed an average of about 36 applications for novel drugs per year. CDER estimates 41 filings for 2016, which is consistent with previous years in this decade.

**Novel Drugs Approved by CDER in Calendar Year (CY) 2016** [see New Molecular Entity and Therapeutic Biologics of 2016 (https://www.fda.gov/Drugs/DevelopmentApprovalProcess/ DrugInnovation/acm483775.htm) for their non-proprietary names, approval dates, and what they are used for.]


* This information is accurate as of December 31, 2016. In rare instances, it may be necessary for FDA to change a drug’s NME designation or the status of its application as a novel BLA. For instance, new information may become available which could lead to a reconsideration of the original designation or status. If changes must be made to a drug’s designation or the status of an application as a novel BLA, the Agency intends to communicate the nature of, and the reason for, any revisions as appropriate.

  - In 2016 CDER approved 22 novel drugs
  - 22 novel drug approvals in CY 2016 is less than the average number approved annually during the past decade
  - From 2007 through 2015 CDER averaged about 30 novel drug approvals per year.
  - Receipts that received a “Refuse to File” (RTF) or “Withdrawn before filing” (WF) identifier are excluded.
  - Multiple submissions (multiple or split originals) pertaining to a single new molecular/biologic entity are only counted once.
  - The filed number is not indicative of workload in the PDUFA V Program.

**IMPACT**

**Impact on Public Health**

Many of the 22 novel drugs CDER approved in 2016 are notable for their potential positive impact and unique contributions to quality medical care and public health.

**First-in-Class**

CDER identified eight of the 22 novel drugs approved in 2016 (36%) as First-in-Class, which is one indicator of the innovative nature of a drug. These drugs often have mechanisms of action different from those of existing therapies.

Defitelio, Exondys 51, Ocaliva, Spinraza, Venclexxa, Xiidra, Zinbryta, and Zinplava.

Noteworthy First-in-Class products include:

  - **Defitelio** - To treat adults and children who develop hepatic veno-occlusive disease with additional kidney or lung abnormalities after they receive a stem cell transplant from blood or bone marrow called hematopoietic stem cell transplantation.
  - **Zinbryta** - To treat multiple sclerosis.

**Drugs for Rare Diseases**

Nine of the 22 novel drugs approved in 2016 (41%) were approved to treat rare or “orphan” diseases that affect 200,000 or fewer Americans. This is significant because patients with rare diseases often have few or no drugs available to treat their conditions.

Anthim, Defitelio, Exondys 51, Lartruvo, Netspot, Ocaliva, Rubraca, Spinraza, and Venclexxa.

Noteworthy examples of drugs to treat rare diseases among the 2016 novel drugs include:

  - **Exondys 51** - To treat patients with Duchenne muscular dystrophy.
  - **Spinraza** - For treatment of patients with spinal muscular atrophy.

**Other Noteworthy Novel Drugs of 2016**

In addition to the noteworthy examples of innovative First-in-Class and “orphan” new products mentioned above, the 2016 novel drug field also includes a variety of other notable drugs. These include cancer therapies, such as**

Lartruvo** to treat patients with a form...
of cancer called soft tissue sarcoma; **Rubraca**, to treat women with ovarian cancer; **Tecentriq**, to treat patients with the most common type of bladder cancer (urothelial carcinoma), and **Venclexta**, for certain patients with chronic lymphocytic leukemia. Also notable are two diagnostic agents, **Axumin**, which is an imaging agent to help detect prostate cancer, and **Netspot**, another imaging agent used to detect rare neuroendocrine tumors.

This year’s novel approvals also include two new treatments for hepatitis C—**Epclusa**, to treat all six major forms of hepatitis C virus; and **Zepatier**, to treat adult patients infected with chronic hepatitis C virus genotypes 1 and 4.

Additional noteworthy approvals include **Nuplazid**, to treat hallucinations and delusions associated with psychosis experienced by some people with Parkinson’s disease, and **Ocaliva**, to treat patients with a rare chronic liver disease known as primary biliary cirrhosis.

**INNOVATION**

**Methods for Expediting Innovative Novel Drugs to Market**

CDER used a number of regulatory methods to expedite the development and approval of novel drugs in 2016, including: Fast Track, Breakthrough, Priority Review, and Accelerated Approval.

**Fast Track**

Fast Track drugs have the potential to address unmet medical needs. Eight of the 2016 novel drugs (36%) were designated by CDER as Fast Track. Fast Track speeds new drug development and review, for instance, by increasing the level of communication FDA allocates to drug developers and by enabling CDER to review portions of a drug application ahead of the submission of the complete application.

Drugs designated with Fast Track status were: Anthim, Defitelio, Epclusa, Exondys 51, Lartruvo, Ocaliva, Spinraza, and Zinplava.

**Breakthrough**

Breakthrough therapies are drugs with preliminary clinical evidence demonstrating that the drug may result in substantial improvement on at least one clinically significant endpoint (e.g., study result) over other available therapies. CDER designated seven of the 2016 novel drugs (32%) as Breakthrough therapies. A breakthrough therapy designation includes all of the Fast Track program features, as well as more intensive FDA guidance on an efficient drug development program. Breakthrough status is designed to help shorten the development time of a potential new therapy.

Drugs designated with Breakthrough status were: Epclusa, Lartruvo, Nuplazid, Rubraca, Tecentriq, Venclexta, and Zepatier.

**Priority Review**

A drug receives a Priority Review if CDER determines that the drug could potentially provide a significant advance in medical care. The drug is reviewed within six months instead of the standard 10 months. Fifteen of the 2016 novel drugs (68%) were designated Priority Review.

Drugs designated with Priority Review status were: Axumin, Defitelio, Epclusa, Exondys 51, Lartruvo, Netspot, Nuplazid, Ocaliva, Rubraca, Spinraza, Tecentriq, Venclexta, Xiidra, and Zepatier, and Zinplava.

**Accelerated Approval**

The Accelerated Approval program allows for early approval of a drug for serious or life threatening illness that offers a benefit over current treatments. CDER approved six of the 2016 novel drugs (27%) under the Accelerated Approval program. This approval is based on a “surrogate endpoint” (e.g., a laboratory measure) or other clinical measure that we consider reasonably likely to predict a clinical benefit of the drug. Once Accelerated Approval is granted, the drug must undergo additional testing to confirm that benefit. This speeds the availability of the drug to patients who need it.

Drugs that received Accelerated Approval were: Exondys 51, Lartruvo, Ocaliva, Rubraca, Tecentriq, and Venclexta.

**Overall Use of Expedited Development and Review Methods**

Sixteen of the 2016 novel drugs (73%) were designated in one or more expedited categories of Fast Track, Breakthrough, Priority Review, and/or Accelerated Approval. Each of these designations helps expedite the speed of the development and/or approval process and is designed to help bring important medications to the market as quickly as possible.

Drugs that used at least one expedited review program include: Anthim, Axumin, Defitelio, Epclusa, Exondys 51, Lartruvo, Netspot, Nuplazid, Ocaliva, Rubraca, Spinraza, Tecentriq, Venclexta, Xiidra, Zepatier, and Zinplava.

**PREDICTABILITY**

**PDUFA Goal Dates Met**

Under the Prescription Drug User Fee Act (PDUFA), sponsors are assessed user fees that provide FDA with the additional resources needed to meet performance goals. Throughout the year, CDER was able to meet or exceed most PDUFA goal dates for application review, agreed to with the pharmaceutical industry and approved by Congress. In 2016, CDER met its PDUFA goal dates for 95% of the novel drugs approved (21 of 22).

Drugs for which CDER met our PDUFA review goal include: Adlyxin, Anthim, Axumin, Briviaict, Cinqair, Defitelio, Epclusa, Eucrisa, Lartruvo, Netspot, Nuplazid, Ocaliva, Rubraca, Spinraza, Taltz, Tecentriq, Venclexta, Xiidra, Zepatier, Zinbryta, and Zinplava.

In 2016, CDER met its PDUFA goal for 95% of the novel drugs approved in 2016.

**ACCESS**

**First Cycle Approval**

CDER approved 21 of the novel drugs of 2016 (95%) on the “first cycle” of review, meaning without requests for additional information that would delay approval and lead to another cycle of review.

Drugs approved on the first cycle include: Adlyxin, Anthim,

Approval in the United States Before Other Countries
Comparing approval to other countries offers another measure of approval efficiency. Although regulatory processes differ widely between FDA and those of regulatory agencies in other countries, 19 of the 22 novel drugs approved in 2016 (86%) were approved in the United States before receiving approval in any other country.

Drugs approved first in the U.S. include: Anthim, Axumin, Cinquair, Epclusa, Euceris, Exondys 51, Lartruvo, Netspot, Nuplazid, Ocaliva, Rubraca, Spinraza, Taltz, Tecentriq, Venclexta, Xiidra, Zeptar, Zinbryta, and Zinplava.

First Cycle Approval 95%
Approved First in U.S. 86%

CONCLUSION
This document represents a broad overview of CDER approvals of novel drugs for calendar year 2016.

A continuing upward trend for the annual number of CDER’s novel drug approvals relies on a corresponding increase in the number of drug applications submitted for approval. During the past decade, submissions of applications for NMEs and novel BLAs by the pharmaceutical and biotechnology industry have remained relatively stable.

More important than the quantity of novel drugs approved in 2016 are the qualities of the new drugs the pharmaceutical industry has developed and the important new roles these drugs are serving to advance medical care.

Also noteworthy is the efficiency with which most of these drugs were reviewed and approved. CDER used a variety of expedited development and review regulatory tools in an effort to help speed these drugs to market.

In all cases, while striving for efficiency of review and approval of applications for new drugs, CDER maintains its rigorous standards for demonstration of effectiveness and safety in the process.

More important than the quantity of novel drugs approved by CDER in 2016 is their medical value and the important new roles they are serving to advance patient care.

This article originally appeared on the U.S. Food and Drug Administration’s website and is reprinted here under a Creative Commons license. https://www.fda.gov/Drugs/DevelopmentApprovalProcess/DrugInnovation/ucm534863.htm.
2016: A Record-setting Year for Generic Drugs

Over the last 10 years, generic drugs have saved the U.S. healthcare system about $1.68 trillion. I’m pleased to report that 2016 was a record-setting year for FDA’s generic drug program, a result that will help generate further cost savings for American consumers, while assuring the quality of these generic products. And the timing couldn’t be better amid concerns about rising drug prices. Last year, FDA’s Office of Generic Drugs (OGD) in the Center for Drug Evaluation and Research generated the highest number of approvals in the history of FDA’s generic drug program — more than 800 generic drug approvals, including both full.... Read more at www.goo.gl/OJwcHj

FDA Drug Trials Snapshots and Diversity When Testing New Drugs

Did you know that some drugs affect men and women differently? For instance, women are often prescribed only half the dose that men take of the sleep medication, Ambien (zolpidem). Race and ethnicity also make a difference. One type of drug commonly used to treat high blood pressure, angiotensin-converting enzyme (ACE) inhibitors, has been shown to be less effective in African American patients than in white patients. John Whyte These are just two examples of why it’s important to test drugs on the appropriate patient populations. This is especially true for drugs we call “novel drugs,” new medicines that have never... Read more at www.goo.gl/9GyzOy

Know Your Zika Risk

Where you live, your travel history, and the travel history of your sex partner(s) can affect your chances of getting Zika. This website can help you learn more about Zika, why you might be at risk of getting it, and how to protect yourself and others. Many people infected with Zika won’t have symptoms or will only have mild symptoms. However, a pregnant woman, even one without symptoms, can pass Zika to her developing fetus. Zika infection during pregnancy can cause serious birth defects. Zika virus primarily spreads when a mosquito infected with Zika bites you. Zika also can spread through sex with a man or woman who has Zika.... Read more at www.goo.gl/fvZWSx

FDA Approves Xermelo for Carcinoid Syndrome Diarrhea

The U.S. Food and Drug Administration today approved Xermelo (telotristat ethyl) tablets in combination with somatostatin analog (SSA) therapy for the treatment of adults with carcinoid syndrome diarrhea that SSA therapy alone has inadequately controlled. Carcinoid syndrome is a cluster of symptoms sometimes seen in people with carcinoid tumors. These tumors are rare, and often slow-growing. Most carcinoid tumors are found in the gastrointestinal tract. Carcinoid syndrome occurs in less than 10 percent of patients with carcinoid tumors, usually after the tumor has spread to the liver. The tumors in these patients.... Read more at www.goo.gl/q1i1dG

Guideline for Prevention and Management of Pressure Ulcers (Injuries).

The level of evidence ratings (A-C) and the classifications of the strength of the recommendations (I, II, III, IV) are defined at the end of the “Major Recommendations” field. Where a level-of-evidence was not provided, there is a designation to indicate the recommendation was based on the consensus of opinion of the task force (Task Force Consensus [TFC]). Assessment: Perform a risk assessment upon the patient’s entry to a healthcare setting, and repeat the assessment on a regularly scheduled basis, or when there is a significant change in the individual’s condition. Level of Evidence = C (Benefit/Effectiveness.... Read more at www.goo.gl/x0lKJ9

FDA Approves First Treatment for Frequent Urination at Night Due to Overproduction of Urine

The U.S. Food and Drug Administration today approved Noctiva (desmopressin acetate) nasal spray for adults who awaken at least two times per night to urinate due to a condition known as nocturnal polyuria (overproduction of urine during the night). Noctiva is the first FDA-approved treatment for this condition. “Today’s approval provides adults who overproduce urine at night with the first FDA-approved therapeutic option to help reduce the number of times a night they wake up to urinate,” said Hylton V. Joffe, M.D., M.M.Sc., director of the Division of Bone, Reproductive, and Urologic Products in the FDA’s Center for Drug Evaluation and Research.... Read more at www.goo.gl/Q0jJPV
Do you have a question regarding the managed care nursing industry, the American Association of Managed Care Nurses (AAMCN), obtaining certification in managed care or other related questions? Send them in and members of the AAMCN Councils will guide you in the right direction! Inquires can be emailed to April Snyder, Vice President of AAMCN Member Services, at asnyder@aamcn.org.

**Question:** What is the difference between the CCM and the CMCN?

**Answer:** The Certified Managed Care Nurse or Professional (CMCN/CMCP) demonstrates an excellence in the knowledge of case management, disease management, quality and utilization review/management, and preventative healthcare.

To obtain certification as a CMCN or CMCP you must complete required coursework, but you don’t need a specified amount of working experience, just a valid nursing license or social worker license (LPN/LVN, ADN, RN, LCSW).

The preparatory course is self-driven and can be completed at home, in your own time. The Home Study is $350 for the course and one year of membership with AAMCN.

To renew your CMCN or CMCP, you need 25 CEs and $55 every 3 years.

Certified Case Manager (CCM) workshops relay case management and case management-related knowledge.

CCM requires 1-2 years of case management employment experience.

The Commission for Case Manager Certification (CCMC) offers a 2-day workshop to prepare you for the CCM Exam, which costs $599 and requires extra travel and accommodation expenses.

Renewing your CCM requires 80 Hours and $199 every 5 years.

**Question:** Is it too late to make a change in my nursing career?

**Answer:** In our opinion, it is never too late to make a change in your life/career. The only limitation is yourself, in terms of how badly you want to make a change, and how much you are willing to work. If you spend your time “wondering” what will be, or what could be, it will never happen. Don’t look back or second guess yourself. Do what YOU want to, and work hard to get there!

**Question:** Do you have to be a member of AAMCN to become certified as a CMCN/CMCP?

**Answer:** No. The certification is administered through the American Board of Managed Care Nurses (ABMCN). You can learn more about the Board on their website: [www.ABMCN.org](http://www.ABMCN.org).

**Question:** Is the CMCN/CMCP preparatory course offered online?

**Answer:** In addition to paper bound books and audio CDs, the certification preparatory course, the AAMCN Home Study, will soon be viewable online wherever internet access is available. The online eLearning portal features full video study guide presentations, complete textbook chapter content, interactive practice quizzes, and is easily viewed on your tablet or smart phone. Online access will be introduced May 1, 2017.
AAMCN Would Like to Recognize Our Corporate Partners:

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Foundation Medicine, Inc.
Gilead Sciences, Inc.
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Novocure
Purdue Pharma L.P.
SeniorBridge®
Uroplasty, Inc.
Woundtech
Yoh Healthcare

Congratulations to the Newly Certified Managed Care Nurses (CMCNs)!

Tracey A. Bischoff, BSN, RN, CMCN
Lindsay L. Brewer, RN, BSN, CMCN
Jamie M. Capon, RN, CMCN
Misty D. Davis, RN, CMCN
Suzanne K. Dickey, RN, CMCN
Gynelle A. Dubuc, LPN, CMCN
Tonya Dykes, LPN, CMCN
Daniel W. Esker, RN, CMCN
Breanne Fontanilla, RN, CMCN
Sharon Gollaher, RN, CMCN
Susan Herndon, RN, CMCN
Laura L. Joanis, RN, BSN, CMCN
Arianne S. Kamdom, RN, CMCN
Indrea Kouranos, RN, BSN, CCM, CMCN

Mary G. McMillen, RN, CMCN
Minerva Mendiola, RN, CMCN
Heather Pearson, LPN, CMCN
Lisa K. Perry, RN, CMCN
Karen Reeves, RN, CMCN
Cheryl D. Rudnicke, MSN, APRN-BC, ADCN, CMCN
Jeanette Stevens, LPN, CMCN
Charles Stieren, LPN, CMCN
Candice Stokes, RN, CMCN
Suk Taylor, RN, CMCN
Aquilla Vallier Watson, LPN, CMCN
Kathe E. Wickham, LPN, CMCN
Ricardo D. Williams, LCSW, CMCP
Welcome New AAMCN Members!

Berta Akimtsev, Anthem
Jeanne Allemann, RN, Humana
Nykeiya Archila, Humana
Christina Avakian, RN, Aetna
Natasha Begay, RN, Aetna / Mercy Care Plan
Karen Bozick, RN, JSA Healthcare
Valerie Branch, LPN, Christ Community Healthcare
Thomas Burckhardt, PeaceHealth SJMC
Shannon Burnham, Private Provider
Cheryl Castillo, RN
Carolyn Chamblee-Lengua, Aetna
Sarah Chart, RN, OptumHealth Education
Judith Che, John Peter Smith Hospital
Laura Cieslak, Illincicare Health
Rhonda Conner, LVN NWDC
Susan Cottington, RN
Nereida De Jesus
Elizabeth Dean, Premier Healthcare Management
Stephanie DeGraffenreid, NC DHHS
Mary DiGiulio, Rutger’s School of Nursing
Samantha Donahue, Western Connecticut Health Network
Felicia Dorsey
Kandice Elison, Lee Health
Stacy Epling, Marcus Daly Hospital
Theresa Faith, Molina Healthcare
Debra Fatovic, RN, BSN, Berkley Accident and Health
Christine, Filipovich, RN, PA Department of Health, Bureau of Managed Care
Mary Ann Fox, RN, Lee Health
Paola Castillo Gomez, RN
Mary Gutierrez
Mark Hansen, RN, United HealthCare
Joseph Hayes, NextLevel Health Partners
Darlene Hoffman, Anthem
Jean Hruby, Blue Cross and Blue Sheild of Nebraska
Jacqueline Jacobs, Memorial Sloan Kettering Cancer Center
Sharmila Kc, John Peter Smith Hospital
Maggie Kelley, RN, Community Health Options
Densie King, Verimed IPA
Leslie Kirschke, RN The Village Health
Jade Kucinskas, Centene Corp
Angela Kurosaka, DNP, RN, CNN, NEA-BC, Centene Corp.
Donna Lady, MDwise
Jamie LaPaglia, RN, Aetna
Annette Latham, Lumeris
Michelle LeFevre, RN, Humana
Melissa Liemertz, Kaiser Permanente
Irna Lim-Mejia, University of Arizona Health Plans
Lois Longo, United HealthCare
Priscilla Lowe, NextLevel Health Partners
Jamie Madrinish, RN, Essentia Health
Pat Mangi, MCA
Pamela Martin, Trustaff Contractor
Shannon McAradle, Sunflower Health Plan
Susan McDonald, Arkansas Blue Cross and Blue Shield
Kenneth Mesick, RN
LeeAnn Morgan, LVN, Access Health Providers
Molly Moss, RN, GPAC
Elizabeth Old
Jenny O’Malley, Cigna
Vanessa G. Perkins, RN Anthem
Victoria Pompey-Enclade, RN, Humana
Sally Robertson, Maryland Physicians Care
Tishana Robinson, Excellence Consulting
Mamie Ruble, APN
Amber Samuels, Cigna
Kelli Sellers, Anthem
Jennifer Shidler, Sanofo Genzyme
Jennifer Slapak, Mission Point Health Partners
Lavinia Smith, Harris County Hospital District/ Community Health Choice
Chmyra Starks, Community Health Choice
Brenda L. Sturm
Amber Sullivan, MissionPoint Health Partners
Joey Teichert, RN, Touchpoint Publicis
Anu Thomas, Virginia Premier Health Plan
Amanda Thompson, Three Rivers Hospice
Ann Marie Tripp, Adirondack Health
Clartrice Turner, NextLevel Health Partners
Martha Underwood
Kaarina Veihl, Otsego Memorial Hospital
Mariella Virelles, JSA Healthcare
Jessica Wangler
Kara Wilson, United HealthCare