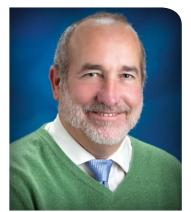


Reducing COPD Emergency Room Visits With High-Touch Patient Engagement and Timely Intervention

BY BRIAN HODGKINS, PHARMD, FCSHP, FASHP; LINDSEY VALENZUELA, PHARMD, APH, BCACP; AND PETE FRONTE, MBA



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Chronic obstructive pulmonary disease (COPD) is one of the most costly and debilitating healthcare conditions in the United States. It can be difficult for healthcare organizations to ensure that patients with COPD receive the high-quality, cost-efficient, patient-centered care they need. It is of immediate societal and individual importance to reduce the costs of this disease and improve outcomes for these patients.

Despite the availability of effective pharmacologic therapies and comprehensive guidelines for their use, many people living with COPD experience a sudden worsening of symptoms known as exacerbations. In people with moderate to severe COPD, exacerbations occur an average of three times a year.

Exacerbations are costly and often lead to hospital readmissions, with initial flare-ups followed by additional events. Many people with COPD have multiple comorbidities, including heart disease, hypertension, diabetes, obesity, and more. When providers assume some form of risk and/or have performance-based contracts, providing care for this patient population can strain organizational resources.

Recognizing the complex needs of people living with COPD, Desert Oasis Health Care (DOHC) established a pharmacist-led, value-based care coordination program for high-risk, high-need COPD patients. In 2020, DOHC utilized its 18-year-plus relationship with patient-engagement firm Altura to add an innovative component to care coordination: an early warning and alert system to avoid emergency department (ED) visits and hospitalizations and reduce costs for patients enrolled in the COPD care coordination program.

"Working with DOHC is always stimulating and rewarding because we see the positive patient impact firsthand," says Pete Fronte, President/CEO at Altura. "This COPD project is another example of DOHC's focus on patient-centered care."

A VALUE-BASED CARE COORDINATION PROGRAM

DOHC's patient population includes approximately 11,500 patients living with a diagnosis of COPD. Of this group, about 700 are actively managed as "high-risk, high-need" and receive services through DOHC's "MMPULM" program. Patients enrolled in this program receive care from multidisciplinary teams that include a clinical pharmacist, respiratory therapist, pharmacy technician, pulmonologist, and social worker.

The pharmacist maintains close communication with all other healthcare providers, including primary care physicians and specialists. Brian Hodgkins, PharmD, explains, "Our population health approach for complex chronic disease processes has been a concerted interdisciplinary focused model. It leverages the primary care provider's efficiency through integration with highly trained clinical teams aided by appropriate technology, collaborative protocols, and a specialist medical director."

Clinical pharmacists prescribe medication therapy, order spirometry, obtain labs, request oxygen saturation evaluations, encourage smoking cessation, perform physical assessments, and attain imaging studies to acquire a full pulmonary work-up. They also

High-cost, highneeds COPD patients benefit from a hightouch approach to managing their disease." provide one-on-one training to patients and caregivers for inhaler technique, exercises, lifestyle modifications, and disease education.

Enrolled patients participate in a threehour, pharmacist-led workshop that covers medications, disease

state, exercises, and other self-management techniques and tools. Their pharmacist case manager optimizes medications, provides regular communication, and engages in weekly discussions of their case with the clinic medical director, a pulmonologist.

"Pharmacists utilize their strong medication and disease state knowledge base to manage our patients with COPD independently and intensely between primary care physician visits to optimize health," says Lindsey Valenzuela, PharmD. "Often this includes identifying barriers to care, overcoming financial limitations, and improving health literacy to empower the patient to better participate in, and improve upon, their care."

IDENTIFYING PATIENTS WITH IMMEDIATE NEEDS

DOHC partnered with Altura to develop and validate a bilingual (English/Spanish), five-item survey designed to identify COPD patients who needed immediate (same day) intervention. Questions were developed using electronic health record (EHR) data, input from DOHC clinical staff, and Altura's experience in assessment development and dissemination.

Three questions were identified as flags for same-day intervention by a clinical pharmacist:

- 1. Increased use of rescue inhaler
- 2. Considering seeking medical attention, including the ED, for breathing problems
- 3. Not using COPD medications as prescribed

Other survey questions included asking patients what they needed most to control their COPD, their preferred method of contact, and satisfaction.

DOHC provided a registry of COPD patients enrolled in the MMPULM program, and Altura engaged patients to invite them to participate in the outreach. Altura collected responses using its HCP Studies patient engagement platform and a team of experienced, multilingual patient engagement specialists. Assessments took place weekly from Sept. 25, 2019, to Jan. 15, 2020. Preliminary data analysis and patient feedback suggested less-frequent assessments would be less intrusive and equally effective. Subsequent assessments took place every two weeks from Jan. 16, 2020, to June 29, 2020.

Altura's patient engagement specialists contacted each patient by the preferred channel (phone, email, or text) to administer the survey or remind participants to complete it. All communications were in the patient's preferred language of English or Spanish. Survey responses were analyzed using the HCP Studies platform and then logged and triaged by Altura to the DOHC pharmacy team daily for intervention based on a pre-determined algorithm.

Patients who had one or more flags received follow-up from a clinical pharmacist within 24 hours—with all clinical documentation entered into the EHR with concurrent PCP notification. "Patients were pleasantly surprised by the interest in and attention to their COPD status and needs," says Amanda Camiolo, Altura's Project Manager.

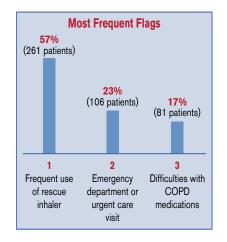
SURVEY RESPONSES

Altura reached out to 917 high-risk, high-needs COPD patients through the project. Telephone outreach was important to participants, with 50% choosing to be contacted by phone, 41% by email, and 9% through text messages.

During the 10-month study, patients responded to the survey anywhere from 0 to 30 times, for a total of 6,738 surveys overall. There were 124 patients (13.5%) who recorded zero responses.

Among the 793 patients (86.5%) who responded at least once, the mean number of responses was 8.11. About half (478) of the patients responded five or more times—60% of the response rate—and were included in the evaluation. Five responses was determined to reflect enough contributory information to reach clinical relevance for impact from an engaged patient.

MOST FREQUENT FLAGS



Survey responses generated a total of 1,781 total flags, including 1,011 priority flags (15% of the total surveys received). Altura sent about 2.5 flags per day to DOHC. One third (33%) of patients had four or more flags, representing two-thirds (67%) of all flags.

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INTERVENTIONS AND COPD NEEDS

Pharmacists followed up with a phone call and developed customized interventions, including:

- Changes in maintenance medication
- Addition of COPD rescue pack prescriptions
- Referrals to immediate care or their primary care provider for further evaluation and work-up
- Initiation of smoking cessation support, education, and other services

Notably, when patients were asked, "What do you need to control your COPD?" they articulated specific COPD-related needs. This information informed program development and interventions, resulting in increased satisfaction. Patients' top-five COPD-based needs were:

- 1. Exercise options
- 2. More breathing treatments
- 3. Help to stop smoking
- 4. Better understanding of my COPD meds
- 5. Support group options

FEWER ED VISITS AND HOSPITALIZATIONS

Patients who participated in outreach were generally sicker, with 7.4% more conditions per patient than those in the non-outreach group. They were more likely to have atrial fibrillation and coronary artery disease but less likely to have depression.

During the pilot, the outreach group had 15% more urgent care visits than patients in the MMPULM program who did not participate in the outreach. Similarly, the outreach group had 30% fewer emergency department visits and 11% fewer admissions. Reducing ED visits and increasing urgent care (immediate care) utilization has been an ongoing priority for DOHC.

	MMPULM		
	NO OUTREACH	WITH OUTREACH	OUTREACH V. NO OUTREACH
Patient	930	467	
Member Months	8,559	4,657	
Conditions/Patient	8.82	9.47	7.4%
DM Programs/Patient	3.63	3.71	2.2%
Immediate Care Visits PTMPM	174.2	200.8	15.3%
Emergency Dept Visits PTMPM	60.1	42.1	-29.9%
Acute Admits PTMPM	34.2	32.2	-5.9%

HIGH TOUCH ADDS HIGH VALUE

Preliminary results from this pilot suggest that high-cost, high-needs COPD patients benefit from a high-touch approach to managing COPD. Delivering just-in-time interventions also

redirects care to less costly modalities—urgent care versus the ED—while increasing patient engagement and satisfaction through desired needs such as smoking cessation and exercise programs.

Importantly, this innovative outreach program relied upon reaching out to patients in the way they desired. Unsurprisingly, half of this older patient population was more comfortable with a phone call; several participants observed that the choice made them feel valued and cared for.

This pilot project suggests that value-based care includes a care continuum that extends beyond the clinic and includes a culturally and linguistically responsive, connected approach. Reaching patients with timely, frequent, proactive touches outside of the clinic appears to add value by ensuring timely access to interventions via a pharmacist-led, team-based approach.

"The patient you can't reach is the patient you can't help," says Valenzuela. "We've worked hard to implement tools that allow for patients to engage in their care based upon their abilities. For some this includes technology, but for others, we need to approach it from a humanistic pathway. Altura provides another avenue for reaching our patients."

Brian Hodgkins, PharmD, FCSHP, FASHP, is the EVP of Clinical Operations & HPN ACO, and Lindsey Valenzuela, PharmD, APh, BCACP, is the Associate VP of Population Health Integration, at Desert Oasis Healthcare (DOHC). DOHC is an APG member and provides medical care and wellness services to patients in the Coachella Valley and surrounding desert communities and serves more than 60,000 members.

Pete Fronte is President and CEO of Altura, an APG partner and GPO provider. Altura provides patient engagement and outreach programs to improve quality measure scores, reduce avoidable costs, and increase participation in prevention programs and clinical studies. You can follow the company on Twitter at @AlturaHealth.

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IMPACT ON QUALITY AND COSTS

According to many estimates, high-need, high-cost (HNHC) patients account for 5% of the population but 50% of the costs. Studies and surveys with HNHC patients can greatly enhance quality and adherence while reducing costs.

Source: High-Need, High-Cost Patients Offer Solutions for Improving Their Care and Reducing Costs. Feb. 5, 2019. https://catalyst.nejm.org/high-need-high-cost-patients-solutions/



Altura coordinates with health systems to provide a highimpact, patient-driven outreach team. We are multilingual and cultural competence certified for diverse populations.

Patient Connect™ couples our health advisors with nimble technology to ensure timely feedback, triage, and interventions.

Patient engagement areas include (partial list):

Star/Quality Initiatives

- · Colorectal cancer screening
- · Breast cancer screening
- Diabetes screening
- · Others as needed

Prevention and cost-containment programs

- Preventing avoidable ED visits for high-risk, high-need patients (e.g. COPD, CHF)
- Fall prevention (UpRight program)

Other

- New member welcome and assessments
- Wellness and home care utilization
- Research participation and other custom projects

KEY OUTCOMES:

Increase Quality - Decrease Costs
Enhance Revenue - Increase Patient Satisfaction



info@altura.health www.altura.health "I like being asked about my COPD and that I have help when I need it most."

- COPD Patient

"I know I need a colonoscopy so thanks for reminding me of the importance and walking me through next steps."

- Cancer Screening Patient

"Altura's integration with our clinical team enables us to effectively engage our patients across many initiatives."

Marc Hoffing MD
 Medical Director
 Desert Oasis Healthcare

Patient driven technology that drives timely interventions

20% reduction in ED visits

75% increase in screenings

96% satisfaction rating