Edmonton Zone (EZ) Adult Medicine- INSPIRED COPD Collaborative-Transcendent Care of Complex Populations

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Strategic Clinical Improvement Committee
Partnerships in Action

EPIQ

DEFINE OPPORTUNITY

Background:

- Chronic obstructive pulmonary disease (COPD) is the leading cause for emergency department (ED) visits, acute care (AC) admissions and readmissions in Alberta and Canada.
- COPD is commonly underdiagnosed; the most recent cycles of the Canadian Health Measures Survey (2012–2013 and 2014–2015) estimated that the prevalence of COPD in Canada may be as high as 12% (CIHI, 2017)
- COPD seldom presents in isolation as a diagnosis, with most individuals having numerous co-morbidities and social challenges contributing to lives of great complexity.
- Individuals with more advanced stages of COPD live with debilitating breathlessness, dependence on oxygen, increased isolation, home-boundedness, functional changes and diminished independence.
- Frequent episodes of crisis breathlessness and acute exacerbations of COPD (AECOPD) have traditionally brought those with COPD into frequent contact with Emergency Medical Services (EMS), ED and AC systems.
- Currently, there is no transcendent model of care for complex and vulnerable patients in the EZ that crosses the continuum of care
- Following a successful EZ Home Living (HL) program, called the INSPIRED COPD Initiative, where more than $1 million dollars in inpatient care for 50 individuals was avoided for management of AECOPD in the community, the University of Alberta Hospital (UAH) and CCEZ came together to develop a model of integrated COPD care in December, 2016.

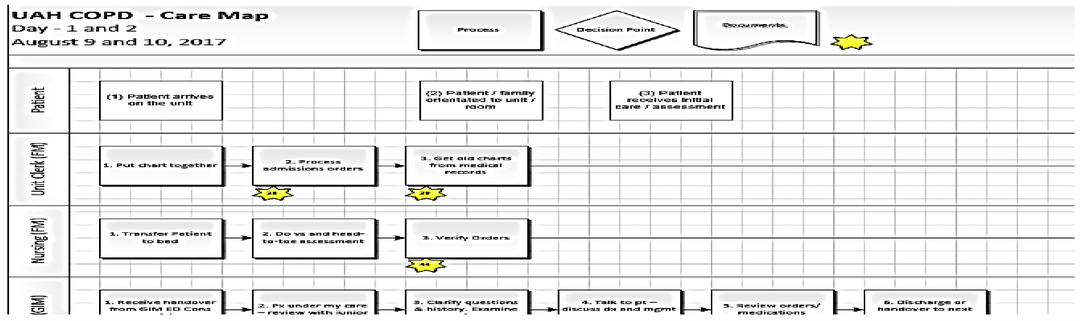
Problem Statement From a health systems perspective, there is a lack of awareness of the complete COPD patient journey. This lack of understanding impacts collaboration across the care continuum, patient and family involvement, optimal resource integration, promotes waste and waits, delays care, increases patient transitions, and results in poor patient and family experiences and outcomes.

Aim Statement: **By Dec. 31, 2018 - Development of a transcendent model of care for complex and vulnerable COPD patients and their caregivers will be established**. Awareness of who the COPD patient is and what their EZ patient journey is will be critical to determining the components required to developed the transcendent model of care. The performance targets for the UAH and Community Care(CC) INSPIRED COPD Collaborative are:
-50% reduction in ED visits and AC admissions for individuals with more than 1 admission for AECOPD
-30% reduction in UAH COPD readmissions within 30 days, 90 days and 120 days
-30% reduction in UAH ALOS for patients with more that 1 inpatient stay for AECOPD
-100% of individuals with advanced COPD who consent to involvement of CC teams on discharge will become part of the Collaborative COPD care cohort
-100% of individuals in the collaborative COPD care cohort will have advance care planning conversation tracked
-80% of individuals in the collaborative COPD care cohort will have goals of care decisions recorded
-Clients and carers who consent will have their impressions of care measured through pre and post semi-structured interviews

BUILD UNDERSTANDING

Project Phases:

Phase 1: A report identifying 404 unique patients admitted to UAH inpatient medical and surgical units from September 1, 2015 to September 1, 2016 with a most responsible diagnosis of AECOPD was created. Sixty-six unique patients had more than 2 inpatient stays during this time, for a total of 196 admissions. Seventy-one data elements were developed into a comprehensive chart audit tool to determine individual, medical, and system characteristics which impact patient lives.
Phase: 2 days of intensive process mapping was completed by 41 frontline staff from ED, EMS, CC and other community partners developing 4 maps: intake, inpatient, discharge and community care. Maps identified areas of integration, fragmentation, hurdles and existing EZ COPD resources.



Informing Improvement Selection:

Process Assessment:
Phase 1: Literature and best practice reviews are ongoing and iterative. An extensive chart audit detailing individual, medical and system characteristics has been completed:

Individual Characteristics: patients are elderly (71), live in an urban setting, have no legal guardian, few informal supports in the home (55%), use a mobility aide, are on home 02 (64%), are/were smokers (98%), have many co-morbidities (18), have had numerous UAH ED visits (5), and a UAH inpatient length of stay (LOS) of 13.5 days. Half the patients have had between 1–3 additional inpatient stays, and the likelihood of readmission for AECOPD within 30 days of discharge was 53%.

Medical Characteristics*:* reflected complex admissions, a thorough work-up according to UAH guidelines, difficulty accessing PFT results, frequent medical consultations (71%), challenges with ongoing dyspnea management, and other arising complex medical issues.

System Characteristics**:** 75% of patients arrived via EMS, the average CTAS score was 2, average stay in ED was 7.5 hours, little documentation of patient education during inpatient stay, few individuals were referred to community partners for follow-up on discharge, 94% of the population was at high risk for readmission based on their LACE score, only 50% of the time family physicians (FP) were notified of the discharge, 80% do not have a FP who completes home visits, only 51% of the population is linked with a CC program on discharge, and 89% are not connected with other community supports for their COPD.

Phase 2: Development of a high level process map (SIPOC) and 4 large cross functional maps (intake, care, discharge and community) outlining 41 care provider's process steps involved in the COPD patient journey. Process maps identified numerous system characteristics, 358 hurdles and 231 system solutions. An EZ resource list providing insight into the existing resources available for complex and vulnerable patients was created.

Themed Areas of Opportunity

1. **COPD patient alert/recognition**
2. **Engagement of EZ EMS community and supports**
3. **Strengthened AC admission protocols**
4. **Enhanced access to information – IT systems - RHSCN bundles – documentation guidelines - technology**
5. **Continuity of, and access to, COPD education - patient, family and providers**
6. **Clarification and optimization of care team roles & responsibilities - AC through to the community**
7. **Integration of UAH Virtual Hospital Model**
8. **Discharge planning and processes**
9. **Informed Oxygen Use - access, utilization, equipment, education and home supports**
10. **Integration of EZ resources for COPD across the continuum of care**
11. **Increased stakeholder collaboration and referrals for EZ COPD care**
12. **Focused improvements during times of transition – enhanced care in the community, reduce avoidable transitions, appropriate and effective referrals, and diminished risks for patients**

Phase 3: Project segmentation with integration of PDSA cycles, focused goals and a Quadruple Aim measurement plan will be developed. Results from Phase 1 and 2 have informed next steps.

ACT TO IMPROVE

SUSTAIN RESULTS

Reinforce Ownership, Measurement, & Continuous Improvement: In the Fall of 2017, Plan, Do, Study, Act (PDSA) cycles will begin by teams involved in the EZ COPD collaborative involving: patient and family centred assessments, medication optimization, discharge planning, patient, family and staff education, strengthened transitions with supports and resources in the community and exploring system solution problem-solving

Voice of the Patient/Customer – Selected Quotes from the AHS INSPIRED COPD Initiative
-That word "COPD" is a judgment, not just a diagnosis
-I had the palliative diagnosis, given my COPD, but I out-lived my husband…we have a lot to learn about how COPD ends our lives. Many close calls, but death takes a long time to come with this disease…
-INSPIRED has given me back a quality of life I never thought I would have again.

MANAGE CHANGE

Collaboration & Communication Strategies: Successful QI initiatives at a zone level are strongly linked to substantive communication, collaboration and change management strategies. The first 9 months of the **INSPIRED COPD Collaborative** have required significant investments in the identification of COPD stakeholders, champions, patient and caregiver representatives, experts, funding agencies, local, provincial and national partnerships, and other EZ resources and forums in which to develop a transcendent model of care.
The following is a list of activities that have ensued since December 2016:

1. Formation of the EZ Integrated Respiratory Steering Committee (December, 2016)
2. Partner with the Canadian Foundation for Healthcare Improvement in relation to the INSPIRED 1.0 and INSPIRED 2.0 Pan-Canadian Collaboratives
3. Collaboration with Canada Health Infoway
4. Partnership with Alberta Health Services Respiratory Health Strategic Clinical Network
5. Engagement with Alberta Innovates
6. Host for 3 day visit by Dr. Graeme Rocker, noted respirologist from Halifax, and originator of the INSPIRED COPD Outreach Model (May 2017)
7. 1 day EZ COPD Forum
8. Launch of CCEZ Complex Respiratory Working Group (Fall 2016)
9. EZ Stakeholders Workshop (May, 2017)
10. Completion by project leads of Change Management Credentialing
11. AIW Greenbelt Project by project lead linked to COPD project
12. Launch of CCEZ Client and Family Advisory Council (Fall 2017)
13. Participation in Canadian Foundation for Healthcare Improvement (CFHI) COPD webinars and development of INSPIRED resource HUB
14. Submission and acceptance in SCIC Quality Improvement Collaborative Day.
15. Completion of University of Alberta (UofA) EPIC training by project lead.
16. Involvement of CC in UofA Faculty of Nursing QPSS e-HIPP research Project focusing on Integrating Quality of Life Assessments into Home Care for Older Adults with Chronic Life-Limiting Illnesses
17. CMO Funding for INSPIRED COPD Collaborative-Transcendent Care of Complex Populations (March 2017)

SHARE LEARNING

Lessons Learned

- System transformation with many interconnected hospitals, community partners and processes takes time and requires both patience and financial supports to view EZ as one COPD patient continuum
- Project segmentation is critical for project teams to maintain momentum with a focus and finish approach
- Increasing awareness of the complex and vulnerable patient characteristics and complex system requirements impacted the desire, knowledge and ability of all (care providers and patients) to ensure system level collaboration
- Various IT systems, with little to no integration, impacts patient care (EMS to ED to AC to Community) therefore the system is somewhat reliant on paper documentation moving with the patient
- Maintaining project momentum, change willingness and readiness for large EZ projects is challenging and impacts the ability to achieve improvements, foster culture change and sustain improvements