



# Integration of Patient-Aligned Care Team Clinical Pharmacy Specialists in the Interdisciplinary Management of Chronic Obstructive Pulmonary Disease

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## INTRODUCTION

- Chronic Obstructive Pulmonary Disease (COPD) was the second most frequent cause for readmission for ambulatory-care-sensitive conditions in 2018-2019<sup>1</sup>
- The estimated direct and indirect cost of COPD are \$32 billion and \$20.4 billion, respectively<sup>2</sup>
- The CDC includes COPD as a condition known to increase risk of severe illness from COVID-19, which is concerning as approximately 5,400 Veterans have COPD at the Kansas City VA Medical Center (KCVA)<sup>3,4</sup>
- KCVA selected COPD for pharmacist disease state expansion within primary care to provide better access to preventative care and medication therapy optimization
- Due to the COVID-19 pandemic, telehealth modalities such as VA Video Connect (VVC) were encouraged as in-person visits were limited

## OBJECTIVE

- Describe the change in COPD care post-integration of COPD management into Patient-Aligned Care Team (PACT) Clinical Pharmacy Specialist (CPS) clinics

## OUTCOMES

- Primary Outcome:**
- Evaluate change in number of COPD interventions post-integration into PACT CPS primary care clinics
- Secondary Outcomes:**
- Evaluate PACT CPS impact on clinical improvements such as COPD Assessment Test (CAT) score and inhaler technique
  - Evaluate PACT CPS impact on population-based quality indicators for COPD care

## METHODS

- Single-center, non-randomized, retrospective quality improvement project
- Study Period: September 2020 to March 2021
- Patients were identified via the COPD Academic Detailing Dashboard and recruited by a clinical pharmacy technician (CPhT), pharmacy trainees, CPS or by referral from Primary Care Providers (PCPs)
- Interventions were completed by 12 PACT CPS via telephone or VVC encounters
- Retrospective data was obtained via chart review to assess CAT scores and inhaler technique

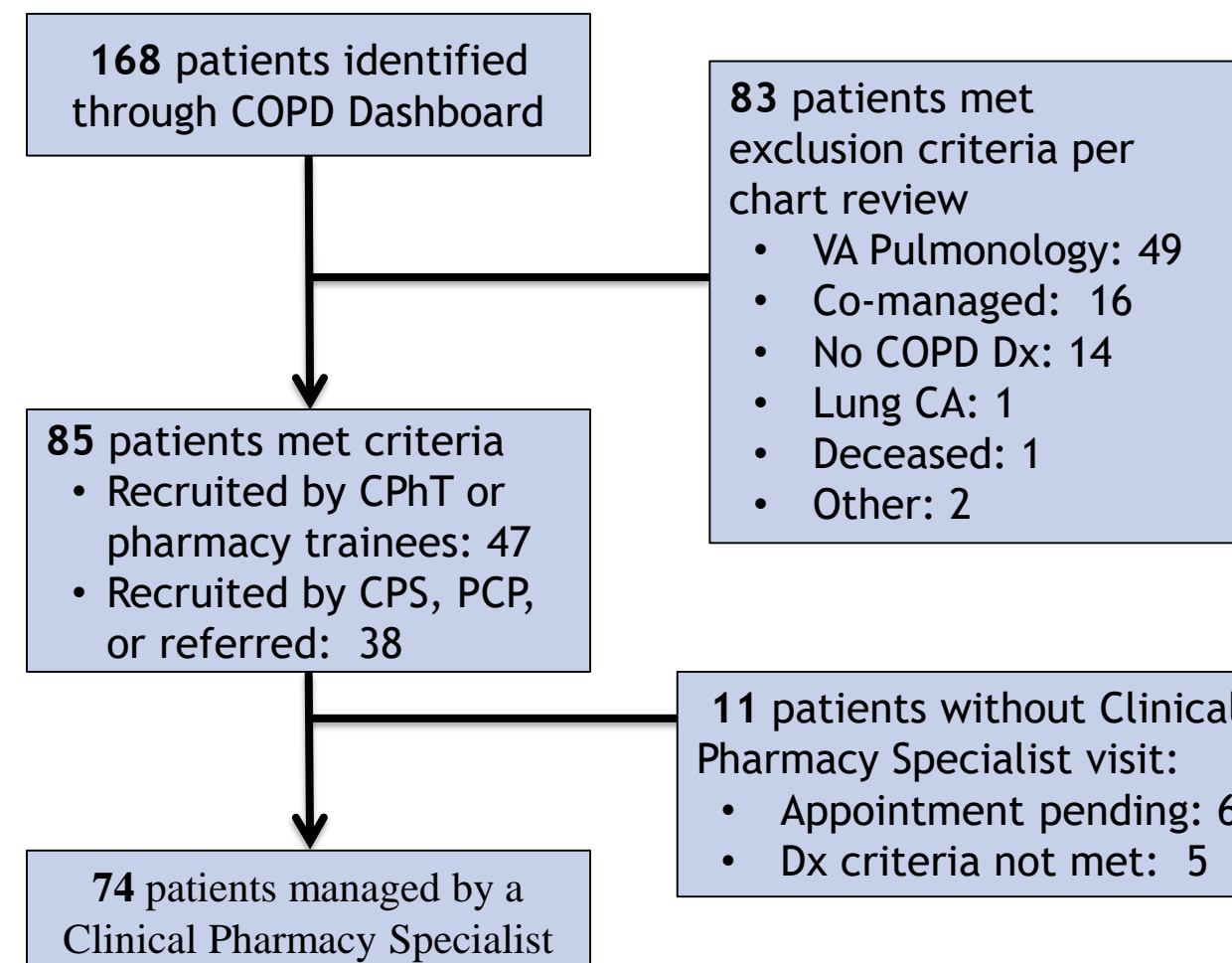
## METHODS

### Inclusion Criteria:

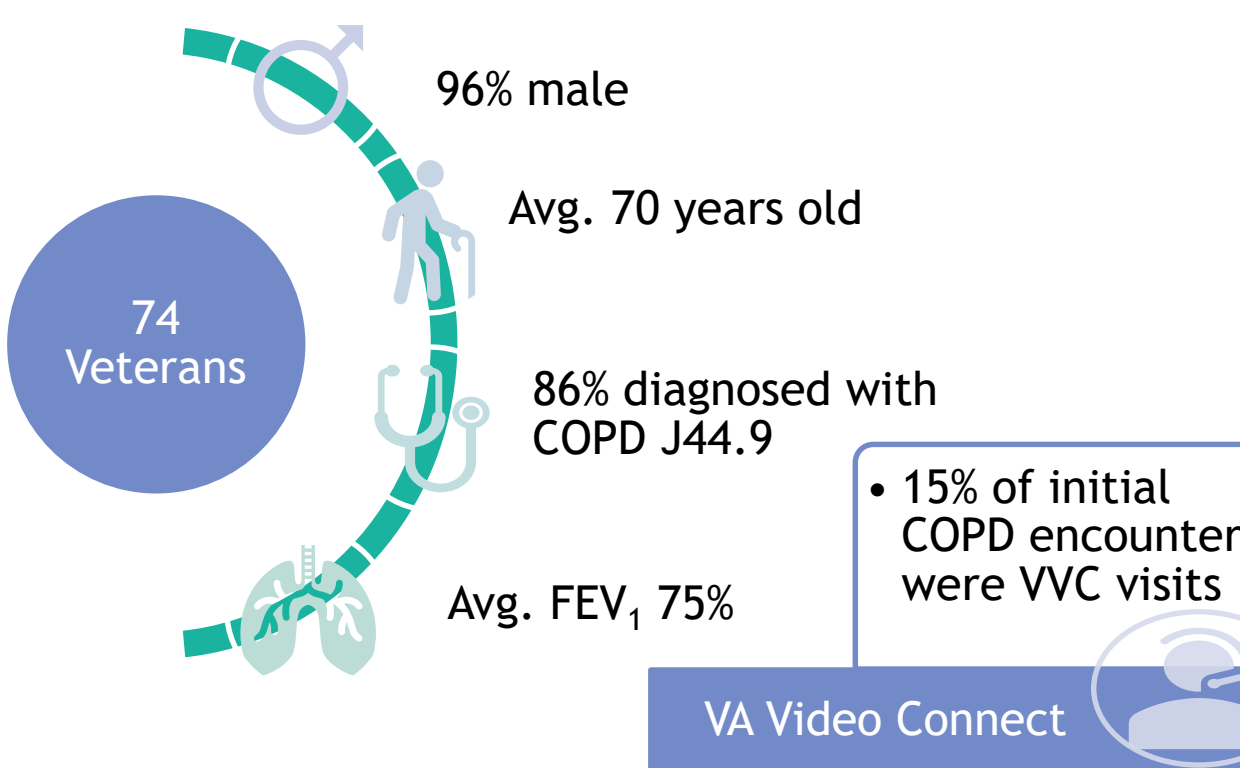
- Veterans within primary care with one of the following lung conditions:
  - Chronic obstructive lung disease J44.9
  - Chronic airway obstruction 496
  - Asthma/ COPD overlap
  - Chronic bronchitis
  - Mixed obstructive and restrictive lung disease

### Exclusion Criteria:

- Active lung cancer
- Active management by VA Pulmonology
- Co-managed by non-VA Pulmonologist
- Co-managed by Home Based Primary Care

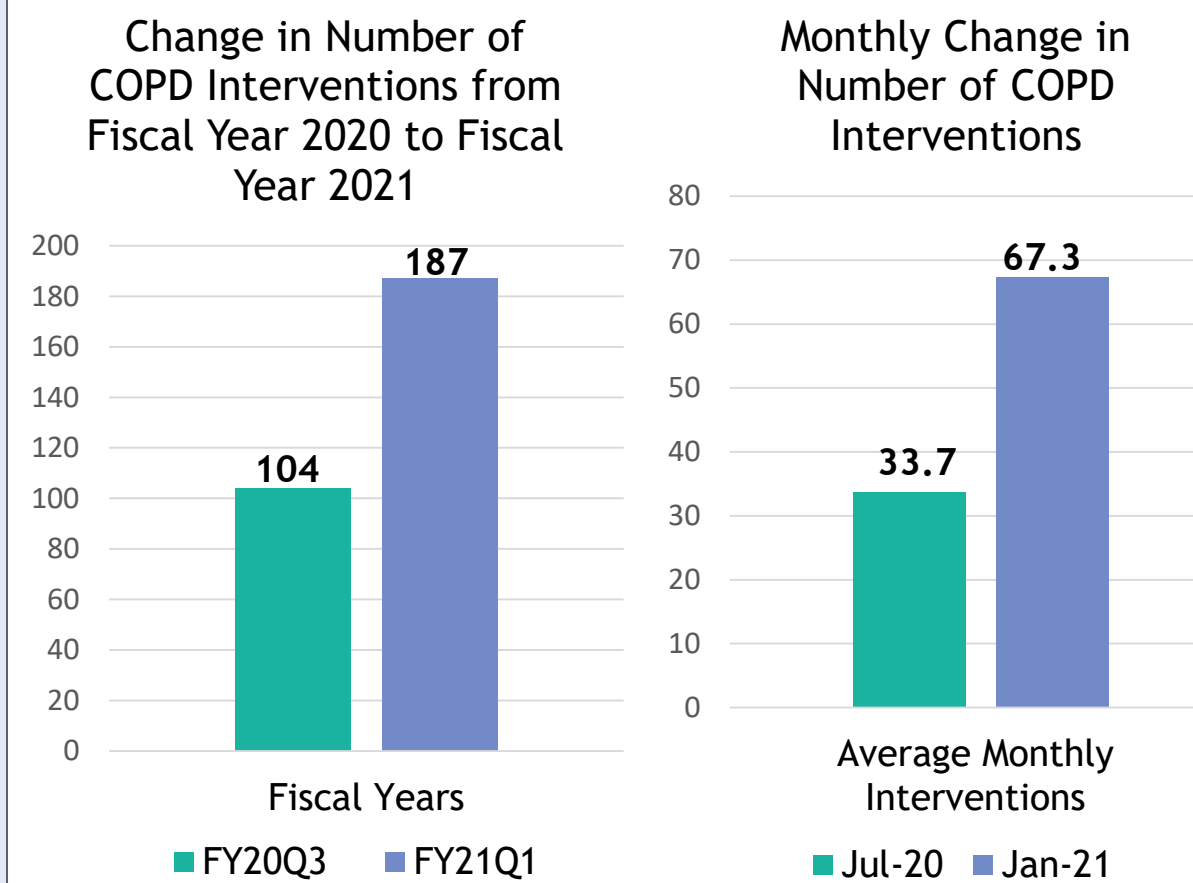


## RESULTS



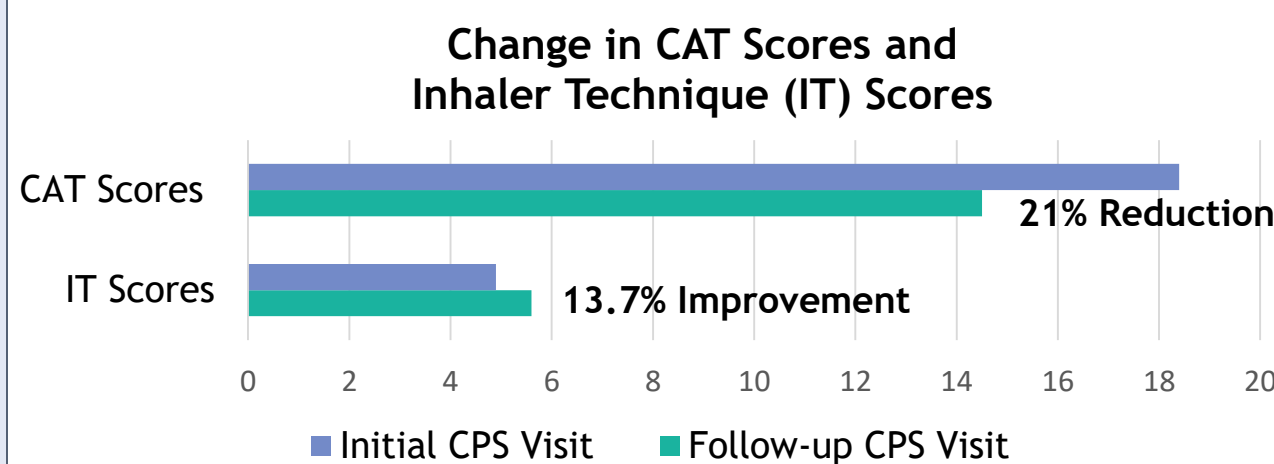
## RESULTS

### Primary Outcome:



- PACT CPS managing COPD increased from 36% to 92% post-integration as of March 2021

### Secondary Outcomes:



KCVA Inhaler Quality Indicators	October 2020	January 2021	March 2021	Overall % Change
Rescue Inhaler Overuse	5.5%	4.3%	4.1%	25% Reduction
Duplicate Inhaler Therapy	5.4%	4.8%	4.4%	18% Reduction
Inhaler Streamline Opportunity	2.2%	2.1%	1.9%	14% Reduction
COPD Exacerbation without LABA or LAMA	25.9%	22.4%	23.2%	10% Reduction
ICS without LABA or LAMA	53.8%	50.4%	50.8%	6% Reduction
ICS De-escalation Candidate	89%	92%	92.8%	4% Increase

## CONCLUSIONS

- KCVA PACT CPS expanded COPD management with increased number of COPD interventions and positive impacts on COPD care for Veterans in the primary care setting
- Secondary outcomes with improved inhaler technique and CAT scores reduced symptom burden and improved quality of life
- Population-health based secondary outcomes from the VA Academic Detailing Dashboard showed improvements in inhaler quality indicators

## FUTURE IMPACT

- PACT CPS will continue to advance the overall clinical care for Veterans with COPD by optimizing medication management, providing inhaler education, assessing technique, ordering labs, pulmonary function tests, immunizations, and consulting pulmonary rehabilitation or other pulmonary services when needed
- This quality improvement project also demonstrated the utility of PACT CPS increasing access to care by using telehealth modalities
- This multidisciplinary approach emphasized preventative care and established a foundation for PACT CPS to provide effective medication management to Veterans within primary care

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## AUTHOR DISCLOSURE

The authors declare no conflict of interest