
CONQUEST Quality Standards



Collaboration On Quality Improvement Initiative
for Achieving Excellence in Standards of COPD Care.

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CONQUEST Quality Standards | Background

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ORIGINAL RESEARCH

CONQUEST Quality Standards: For the Collaboration on Quality Improvement Initiative for Achieving Excellence in Standards of COPD Care

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Background: Chronic obstructive pulmonary disease (COPD) are managed predominantly in primary care. However, key opportunities to optimize treatment are often not realized due to unrecognized disease and delayed implementation of appropriate interventions for both diagnosed and undiagnosed individuals. The Collaborative on Quality Improvement Initiative for achieving Excellence in Standards of COPD care (CONQUEST) is the first-of-its-kind, collaborative, interventional COPD registry. It comprises an integrated quality improvement program focusing on patients (diagnosed and undiagnosed) at a modifiable and higher risk of COPD exacerbations. The first step in CONQUEST was the development of quality standards (QS). The QS will be imbedded in routine primary and secondary care, and are designed to drive patient-centered, targeted, risk-based assessment and management optimization. Our aim is to provide an overview of the CONQUEST QS, including how they were developed, as well as the rationale for, and evidence to support, their inclusion in healthcare systems.

Methods: The QS were developed (between November 2019 and December 2020) by the CONQUEST Global Steering Committee, including 11 internationally recognized experts with a specialty and research focus in COPD. The process included an extensive literature review, generation of QS draft wording, three iterative rounds of review, and consensus.

Results: Four QS were developed: 1) identification of COPD target population, 2) assessment of disease and quantification of future risk, 3) non-pharmacological and pharmacological intervention, and 4) appropriate follow-up. Each QS is followed by a rationale statement and a summary of current guidelines and research evidence relating to the standard and its components.

Conclusion: The CONQUEST QS represent an important step in our aim to improve care for patients with COPD in primary and secondary care. They will help to transform the patient journey, by encouraging early intervention to identify, assess, optimally manage and follow-up COPD patients with modifiable high risk of future exacerbations.

Keywords: identification, assessment, intervention, follow-up

Plain Language Summary

Under-diagnosis and under-treatment of COPD results in significantly higher risk of exacerbations, morbidity and death. Early identification and appropriate management should mitigate that risk. The Collaborative on Quality Improvement Initiative for achieving Excellence in Standards of COPD care (CONQUEST) aims to improve the management of patients at greater risk of future COPD exacerbations by developing and implementing

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2301

- Globally, the burden of COPD is high and remains a public health priority
- It is often underdiagnosed and undertreated in primary care, leading to worsening of disease and increased symptom
- CONQUEST is the first-of-its-kind collaborative, interventional, COPD registry with an integrated quality improvement program aiming to improve patient care and outcomes.



Underpinning the CONQUEST programme are

The CONQUEST Quality Standards

These focus on patients (diagnosed and undiagnosed) at a modifiable, but higher risk of COPD exacerbations and adverse cardiac events ("Modifiable high-risk")

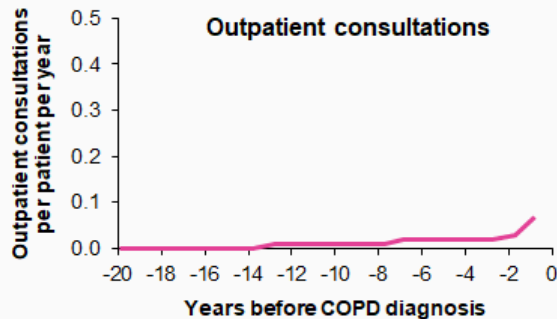
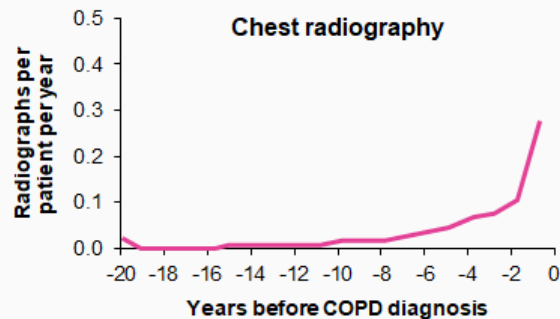
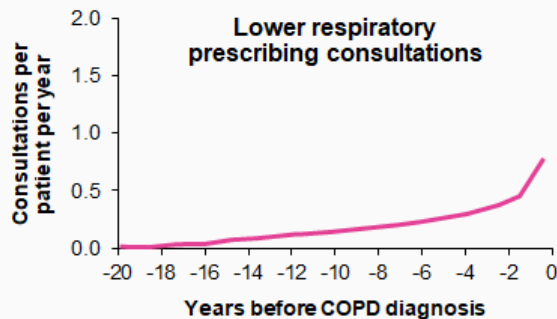
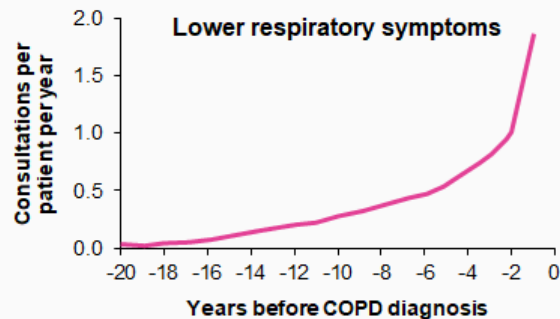
Pullen R et al. Int J Chron Obstruct Pulmon Dis 2021;16:2301–2322

The CONQUEST Quality Improvement Programme Underpinned by Quality Standards

- The Need for CONQUEST & Programme Background

Opportunities To Diagnose COPD Are Often Missed in Primary Care

Mean frequency of missed opportunities to diagnose COPD



Retrospective, cohort study with data collected between 1990–2009; data assessed for 38859 patients aged >40 years in the UK with an electronically coded diagnosis of COPD in their primary care records
Jones RCM, et al. Lancet Respir Med 2014;2:267–276

In the **5 years** before diagnosis of COPD:

85%

with lower respiratory consultation

68%

with lower respiratory prescription

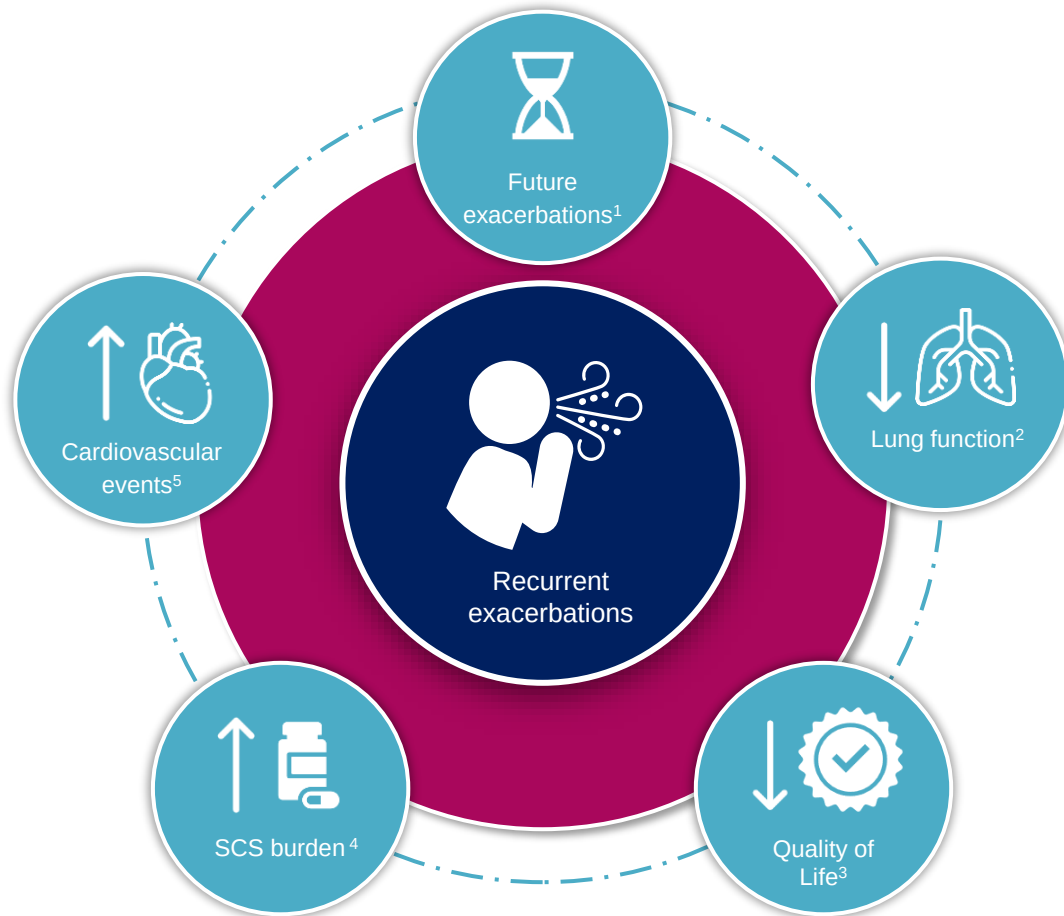
40%

prescribed oral steroids

55%

prescribed antibiotics

Impact of recurrent exacerbations



SCS: Systemic Corticosteroid

1. Hurst JR, et al. N Engl J Med 2010; 363 (12): 1128–1138.

2. Kerkhof M, et al. Int J Chron Obstruct Pulmon Dis 2020; 15: 1909-1918

3. Jones PW, et al. Eur Respir J 2014; 44:1156–1165

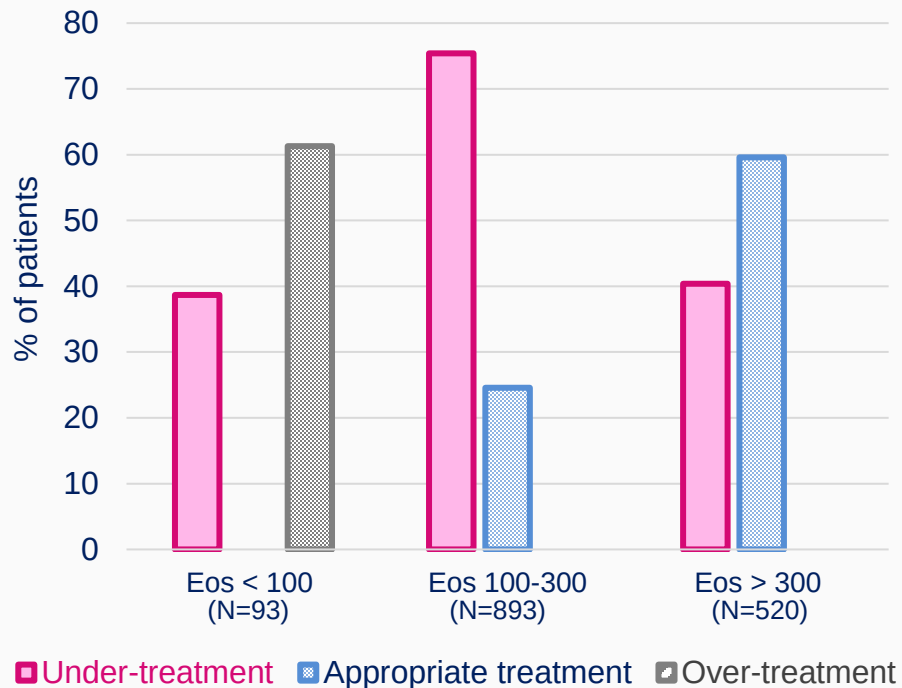
4. Menzies-Gow et al., Oral Presentation - British Thoracic Society, January 2021

5. Kunisaki KM, et al. Am J Respir Crit Care Med 2018; 198: 51-57

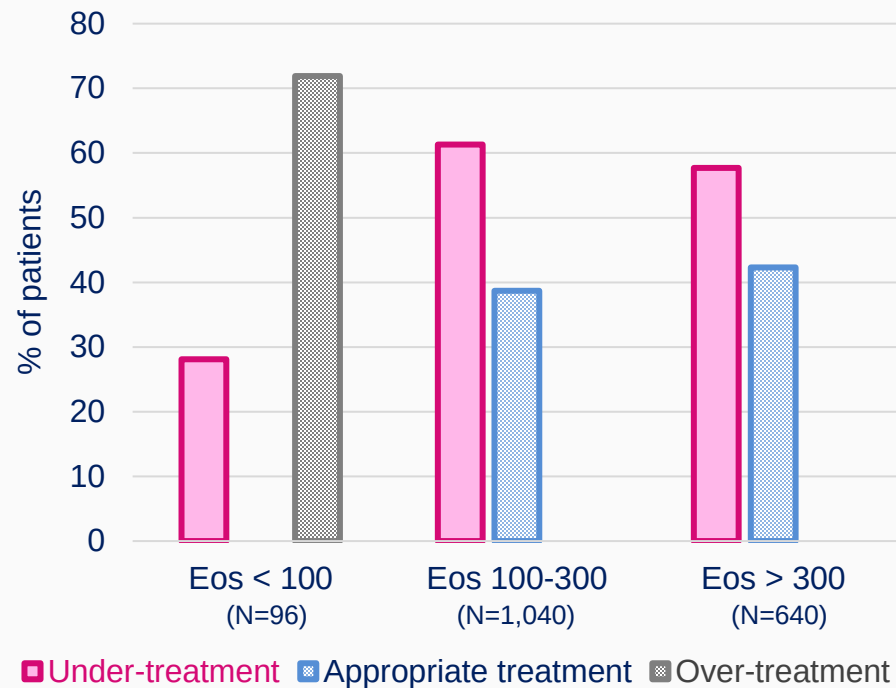
Evidence for Under and Over-treatment of COPD patients based on UK data

Halpin DG, Price D et al. E Clinical Med 2019; 14:32-41

Appropriateness of therapy in COPD patients on **maintenance** therapy with ≥ 2 exacerbations and **mMRC <2** in 2014*



Appropriateness of therapy in COPD patients on **maintenance** therapy with ≥ 2 exacerbations and **mMRC ≥ 2** in 2014*



Under treatment observed in all COPD patient groups, irrespective of blood eosinophil count and symptom burden

*according to the GOLD 2019 report, based on dyspnea, exacerbation frequency and blood eosinophil counts ('eos') at Index Date.

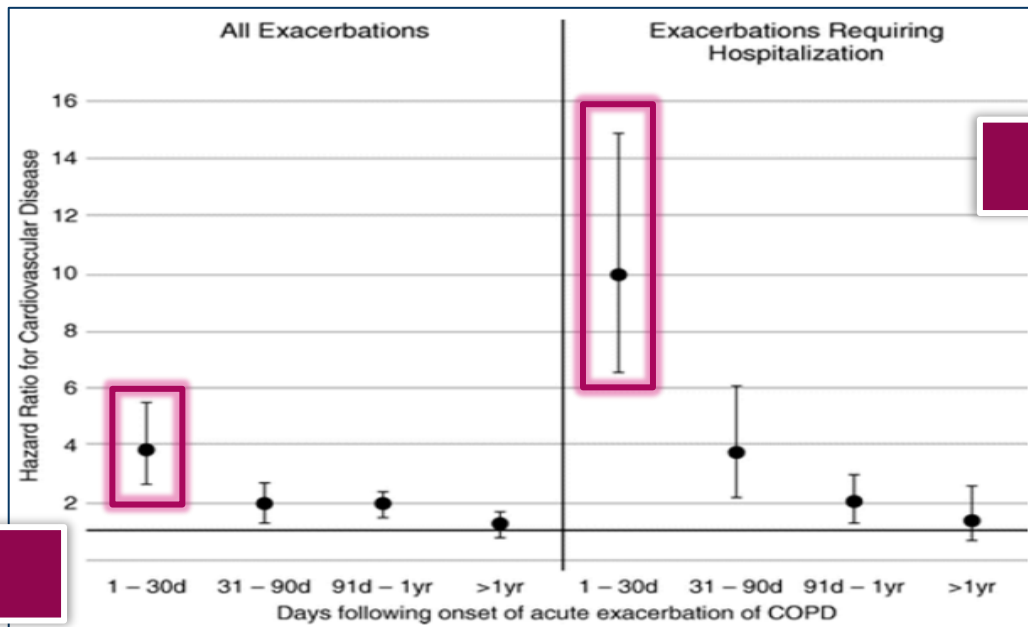
COPD Exacerbations linked to increased Cardiovascular Event Risk

Post-hoc analysis from
SUMMIT trial

COPD patients with CVD or risk
factors for CVD + ≥ 1 exacerbation

$\sim 4x \uparrow$

overall in subsequent CVD events
vs pre-exacerbation period

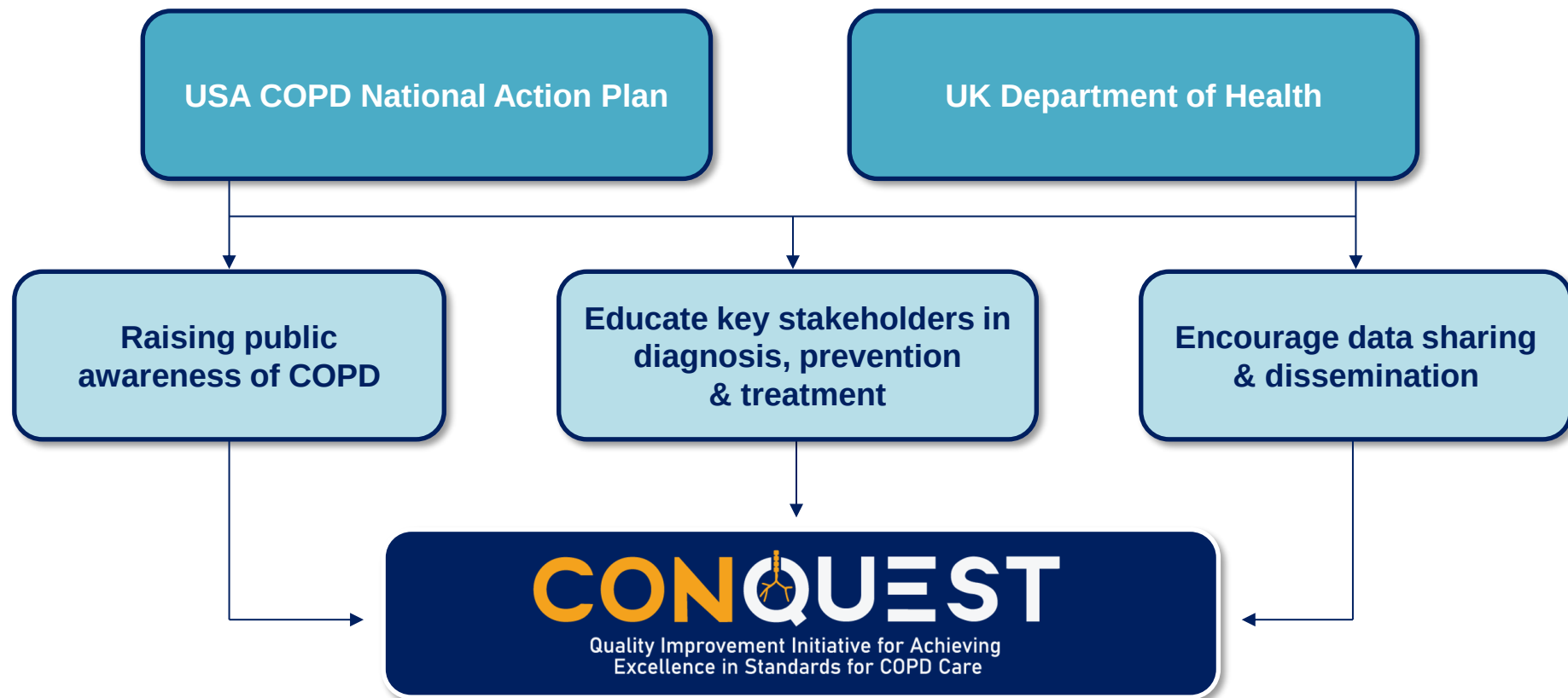


HR 3.8
(95% CI 2.7 - 5.5)

HR 9.9
(95% CI 6.6 - 14.9)

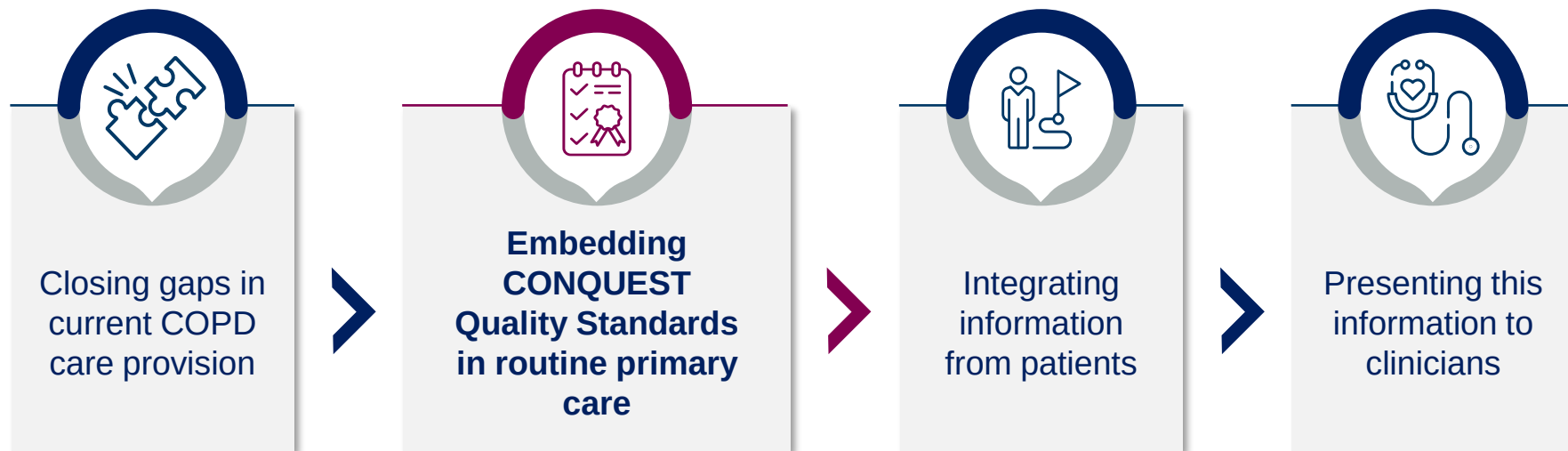
Relationship present regardless of cardiac history at outset

The Need For Improved Quality of Care – Goals for COPD Management in the USA & UK



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CONQUEST: Programme Vision



Driving **patient-centred, targeted, and risk-based assessment to empower patients and physicians to improve COPD care** for both diagnosed and undiagnosed **modifiable high-risk** patients

The CONQUEST Quality Improvement Programme Underpinned by Quality Standards

- The Development of the CONQUEST Quality Standards

Principles Considered in Development of Evidence-Based Quality Standards (QS) for CONQUEST

- ❑ Making the QS practical & easy to use for all stakeholders (e.g., clinicians, policy makers, advocacy groups)
- ❑ Ensuring the QS are feasible to implement in routine clinical practice
- ❑ Future-proofing the QS by advocating general principles rather than a stringent and didactic approach
- ❑ Ensuring QS adherence and impact on disease outcomes can be compared across healthcare systems
- ❑ Accounting for intercountry differences in COPD burden (morbidity, mortality, socioeconomic)

“These Quality Standards are core research and evidence-based statements that underpin the CONQUEST initiative and are intended to cover care for a targeted COPD population, a large proportion of whom may be positively impacted by quality COPD care.”

Modifiable High-Risk

Aged ≥ 40 with COPD (or potential COPD) with ≥ 2 moderate, or ≥ 1 severe exacerbations in last 12 months

AND whose medical record data indicates clearly that there is scope for management optimisation

Undiagnosed patients
with **potential** MHR
COPD

Diagnosed MHR
COPD patients

Overview of CONQUEST Quality Standards, Specific to Patients with Modifiable High-risk COPD

1. Identification of target population

Identify individuals ≥ 40 years of age (with or without a COPD diagnosis) with a history of smoking or relevant environmental exposure, at increased risk of exacerbations, morbidity, and mortality and with scope for COPD management optimization.

And, within this population, to identify those with greater cardiovascular risk.

4. Follow up

Ensure regular follow up to address pharmacological and non-pharmacological interventions, symptoms review & risk prevention and lifestyle risk factors



2. Assessment of disease & quantification of future risk

Perform thorough phenotyping, assessment of underlying biological traits and risk prediction of all patients identified within the target population.

3. Non-pharmacological and pharmacological Intervention

Target therapeutic interventions according to individual risk assessment and biological traits

The Four Quality Standards

- Detailed Description of Each CONQUEST Quality Standard

Quality Standard #1: Identifying The Target Population



Patients

- ✓ **≥40 years old**
- ✓ **With or without a COPD diagnosis**
- ✓ **History of smoking/relevant environmental exposure**
- ✓ **Increased risk of exacerbations, morbidity, and mortality**
- ✓ **Scope for COPD management optimization (i.e., modifiable high-risk disease)**



Identify those with
greater cardiovascular risk
within this population

Rationale

- Early intervention would slow the speed of disease progression
- Patients at risk of exacerbations require more intense focus on identification, assessment, and treatment optimization

Goals of optimized management

- Reduce exacerbation rate
- Reduce/attenuate lung function decline
- Improve patient health-related quality of life
- Decrease cardiovascular risk associated with exacerbations

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Quality Standard #2: Assessing Disease and Quantifying Future Risk



Phenotype patients

Assess underlying
biological traits

Predict individual risk



Disease assessment

1. **Symptomatic assessment** via the COPD Assessment Test (CAT) and MRC dyspnea scale
2. **Post-bronchodilator spirometry** to confirm diagnosis and track lung function
3. Measuring **blood eosinophil counts** to guide therapy
4. **Imaging** to evaluate disease, consider other respiratory pathologies, and potentially phenotype patients
5. Identifying **comorbidities**

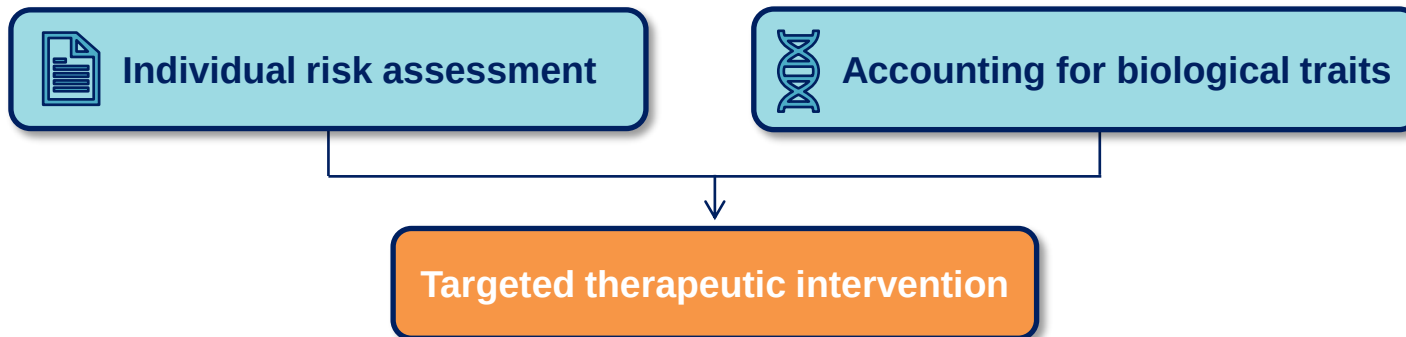


Risk assessment

1. Body Mass Index (**BMI**) evaluation to aid in prediction of exacerbation risk, mortality, and comorbidities
2. **Cardiovascular (CV) risk** evaluation
3. Evaluation with validated **multicomponent risk assessment** indices
4. Evaluation of **cigarette smoke exposure** and **physical activity** levels

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Quality Standard #3: Non-pharmacological and Pharmacological Intervention



Non-pharmacological interventions	Pharmacological interventions
➤ Smoking cessation interventions as appropriate	➤ Dual bronchodilators if symptomatic on LABD monotherapy
➤ Pulmonary rehabilitation referrals, where indicated	➤ Triple therapy when appropriate
➤ Long-term oxygen therapy, where indicated	➤ Adequate and prompt therapy for cardiac risk factors & disease
➤ Pneumococcal & annual influenza vaccination to all with COPD	➤ Regularly assess inhaler choice and technique
➤ Enhancing patient motivation and engagement with patient reported outcome information & shared decision-making	➤ Short courses of oral steroids and/or antibiotics during exacerbations

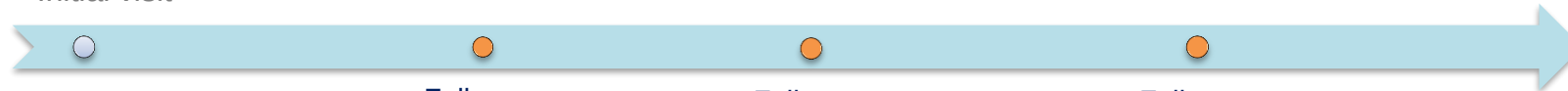
Abbreviations: LABD = long-acting bronchodilators

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Quality Standard #4: Appropriate Follow Up



Initial visit



Follow-up

Follow-up

Follow-up

Timely clinical review for ongoing symptom evaluation, risk prediction, and lifestyle risk factor assessment

What should occur during follow-up visits?

- ✓ Medication, inhaler device & symptom review
- ✓ Inhaler technique assessment
- ✓ Smoking cessation advice/intervention
- ✓ BMI calculation and nutritional advice; specifically, a referral for dietetic advice for patients with low/high BMI
- ✓ Pulmonary rehabilitation referral for suitable patients
- ✓ Vaccination in accordance with local policy
- ✓ Improving patient motivation and engagement with their treatment plan

Goals of follow-up:

- long-term strategies to encompass the pharmacological, clinical & non-pharmacological aspects of COPD management

Conclusions

- Takeaway Messages from the Quality Standard Manuscript & Next Steps for the CONQUEST Programme



- The CONQUEST Quality Standards are the **first step** in transforming the patient pathway to improve the care of COPD patients in primary and secondary care internationally
- These Quality Standards will be a **useful tool** in identifying high-risk patients with modifiable disease, optimizing their management, and ensuring appropriate follow up to reduce symptoms, exacerbations, comorbidity and mortality
- Moving forward, CONQUEST will **advocate for appropriate and early interventions** to slow disease progression and optimize patient outcomes; it will also utilize **shared decision-making** to lock in behavioural change and generate transformational evidence to measure treatment success in the real world

Next Steps for the CONQUEST QI Programme

- Translation of the Quality Standards into **Quality Improvement Programme operational protocols**
 - These protocols will describe the core components of the programme required to implement CONQUEST in a healthcare system or a practice
- Select regions of the UK & USA have been identified as initial targets for the CONQUEST intervention
- An **Opportunity Analysis** will be conducted in both countries using retrospective analysis of EMR data to compare the Quality Standards with current practice – highlighting opportunities for management optimisation
- The impact of CONQUEST on COPD outcomes will be evaluated by a cluster randomized trial (PREVAIL) in each country

*For More Information on the CONQUEST
Quality Standards*

➤ View the full article here: <https://www.dovepress.com/article/download/67814>