NSW Health

Leading Better Value Care

Chronic obstructive pulmonary disease

Clinical priorities

Chronic obstructive pulmonary disease (COPD) is a serious, progressive and disabling condition that limits airflow in the lungs. A recent analysis of care provided across NSW hospitals highlighted four key areas for improvement.

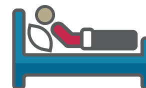
Aims of the initiative

- Reduce unwarranted clinical variation
- Increase education, resources and support for COPD patients to self-manage their disease
- Develop optimal care after discharge and at end of life.

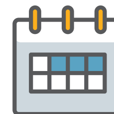
75 hospitals across NSW admit patients with COPD

NSW Health Statistics 2016–2017

44,582 separations

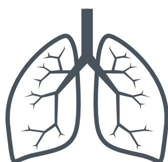


407,539 bed days



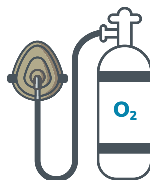
9.14 days average length of stay

1 DIAGNOSTICS



Spirometry confirms an exacerbation of COPD and its severity.

2 EXACERBATION MANAGEMENT



Controlled delivery of oxygen and appropriate use of non-invasive ventilation (NIV) improves patient outcomes and reduces length of stay.

3 OPTIMISING HEALTH THROUGH ONGOING CARE

a. Pulmonary rehabilitation and chronic disease management programs prevent readmissions by improving self-management.

b. Standardised communication processes will support the COPD patient's transfer of care to the community for ongoing multidisciplinary team management.

4 LAST YEAR OF LIFE

Palliative management of end-stage symptoms prevents unnecessary admissions and improves patient reported outcomes.

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As part of the Leading Better Value Care (LBVC) COPD initiative, four key areas of care have been identified as a priority for both local and statewide improvement. These were identified following the review of current guidelines and evidence, the audit of more than 1000 COPD cases across NSW and the economic analysis of the potential impact of change.

Diagnostics

Patients will receive a spirometry to confirm an exacerbation of COPD and to assess its severity.

- Spirometry is the most objective measurement of airflow limitation that enables clinicians to diagnose COPD and monitor the progression of the disease.
- Diagnosis of COPD based on a physical assessment by a clinician has been shown to have poor sensitivity, with misdiagnosis rates as high as 84%.

Exacerbation management

Patients will receive controlled delivery of oxygen and criteria-led non-invasive ventilation (NIV) to reduce length of stay and facilitate better patient outcomes.

- Oxygen therapy titrated to maintain oxygen saturations of 88-92% in patients at risk of hypercapnea.
- Criteria led use of NIV to alleviate dyspnoea associated with acidosis, hypoxemia and hypercapnea.

Optimising health through ongoing care

a. Patients will receive timely referral to a pulmonary rehabilitation or chronic disease management program to improve self-management and decrease rates of rehospitalisation and mortality.

   - Regular exercise, such as that offered by a pulmonary rehabilitation program, is recommended to improve physical function, improve quality of life and decrease hospitalisation.
   - Patient-centred care coordination and education through chronic disease management programs for patients with comorbidities or low health literacy improves self-management, reduces readmissions and length of stay.

b. Standardised communication processes and tools will support the COPD patient's transfer of care to the community for ongoing management by a general practitioner and integrated care team.

   - While the LBVC initiative for COPD focuses predominantly on the acute inpatient care of the patient, it is acknowledged that seamless care transition beyond the hospital is a key priority area for improving outcomes for patients.

Last year of life

Patients with advanced COPD are identified and receive appropriate palliative referral and management to alleviate end-stage symptoms, improve quality of life and decrease rehospitalisation.

- Close to 50% of patients diagnosed with end stage COPD will die within 12 months of demonstrating a reduction in lung function of FEV1<30%.
- Palliative care involvement should be sought early in end-stage COPD to reduce the suffering and distress associated with end-stage symptoms.

Evidence

- Lung Foundation Australia and Thoracic Society of Australia and New Zealand. *The COPD-X Plan: Australian and New Zealand guidelines for the management of Chronic Obstructive Pulmonary Disease 2018 V 2.53* [Internet]. Milton: Lung Foundation Australia and Thoracic Society of Australia and New Zealand; 2018 [cited August 2018]. Available from: https://copdx.org.au/wp-content/uploads/2018/06/COPDX-V2-53-March-2018_2.pdf
- The Agency for Clinical Innovation (ACI) *Clinical, Monitoring, Economics and Evaluation*. Economic appraisal for COPD. Sydney: ACI; 2018.
- Thoracic Society of Australia and New Zealand. *Oxygen guidelines for acute oxygen use in adults* [Internet]. Sydney: Thoracic Society of Australia and New Zealand; 2015 [cited August 2018]. Available from: https://www.thoracic.org.au/journal-publishing/command/download_file/id/34/filename/TSANZ-AcuteOxygen-Guidelines-2016-web.pdf
- NSW Health. *Care coordination: planning from admission to transfer of care in NSW public hospitals* [Internet]. Sydney: NSW Health; 2016 [cited August 2018]. Available from: https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2011_015.pdf

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