Prognostic Tool to support the identification of patients entering end stages of Chronic Obstructive Pulmonary Disease (COPD)

NHS Calderdale CCG, NHS Greater Huddersfield CCG, NHS North Kirklees CCG and NHS Wakefield CCG

The following information is provided to support those working with patients with severe COPD to identify a point at which end of life issues should be discussed. Active treatment for exacerbations and management of symptoms should continue and be complemented by supportive and palliative care therapies.

It is important to recognise that the prognosis for those with COPD is difficult to predict. As no definitive index exists, all indicators included in this document, subjective and objective, are of equal value in supporting the identification of patients entering the end stages of COPD and equal weight should be given to their use. End of life discussions and the use of supportive and palliative care approaches should also be considered in patients who request or wish to discuss such issues at any stage of their disease.

The BODE Index

(Body Mass Index**,** Degree of Airflow **O**bstruction and **D**yspnoea and **E**xercise Capacity**)**

The BODE index has been developed in an attempt to quantify prognosis in COPD. However, the correlation between these elements and survival does not provide an accurate assessment of the individual. The index should be used as one element in an holistic assessment.

Variable	Points on the BODE+ activity Index			
	0	1	2	3
FEV_1 % predicted (FEV_1 Forced Expiratory Volume 1 second)	≥65%	50-64%	36-49%	≤35%
Number of hours dedicated to walking per week	>4	2-4	1-2	1 or less
*MRC Dyspnoea Score (*Medical Research Council)	1-2	3	4	5
Body Mass Index	>21	≤21		

Scores
BODE stage I = BODE index 0 – 2
BODE stage II = BODE index 3 and 4
BODE stage III = BODE index 5 – 7
BODE stage IV = BODE index 8 – 10
Those with a BODE stage of IV have the highest mortality (80%) in the next 5 years

BODE scores are calculated by the addition of each single category score e.g.

FEV_1 %	≤35%	=3
Walking	1-2	= 2
MRC Score	3	= 1
BMI	>21	= 0
Total		= 6

6 = **BODE stage III**

Other assessment tools are available for example the DOSE Index
http://www.thepcrj.org/journ/view_article.php?article_id=1017

References:
- Chronic obstructive pulmonary disease Management of chronic obstructive pulmonary disease in adults in primary and secondary care (partial update) http://www.nice.org.uk/cg101
- An outcomes strategy for people with chronic obstructive pulmonary disease (COPD) and asthma in England https://www.gov.uk/government/publications/an-outcomes-strategy-for-people-with-chronic-obstructive-pulmonary-disease-copd-and-asthma-in-england
- NICE COPD Quality Standards (QS 10) http://guidance.nice.org.uk/QS10

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Supporting Clinical Indicators

- History of >2 acute exacerbations in the last 12 months
- Frequent admissions into hospital with acute exacerbation COPD
- Progressive shortening of the intervals between admissions
- Limited improvement following hospital admission, patients who are on maximum therapy – no other intervention is likely to alter the progression of the condition
- Dependence on Long Term Oxygen Therapy (LTOT), Short Burst Oxygen Therapy (SBOT) or Ambulatory Oxygen
- Severe unremitting dyspnoea at rest (* MRC Dyspnoea Score 5)
- Presence of severe co-morbidities e.g. heart failure, diabetes
- Housebound – unable to carry out normal activities of daily living/self-care

In patients fulfilling end of life criteria consider:

- Clear management plan in consultation with the patient and carer
- Gold Standard Framework – include on GP supportive care register
- Referral to specialist services:
  - Community Matron
  - Community Respiratory Service
  - District Nurses
  - Social Services
  - Occupational therapy
  - Psychological support
  - Complex Case Manager (for continuing care health funding if near to death criteria met)
- Benefits advice (DS1500 Form/Attendance Allowance/Disability Living Allowance)
- When the patient is in the last few days of life consider supporting their care with an end of life care plan according to local policy

MRC Dyspnoea Score

1) Not troubled with breathlessness except with strenuous exercise.
2) Troubled by breathlessness when hurrying on the level or walking up a slight hill.
3) Walks slower than people of the same age on the level because of breathlessness or has to stop for breath when walking at own pace on the level.
4) Stops for breath after walking about 100 yards after a few minutes on the level.
5) Too breathless to leave the house or breathless when dressing or undressing.

End of life issues should be addressed and where necessary referral to specialist palliative care services should be made in any patient with COPD who:

1. Has uncontrolled physical symptoms either related to COPD or any co-morbidity that are having a significant impact on their quality of life despite optimal medical management.
2. The patient has unresolved complex needs that cannot be met by the caring team, or it is anticipated that the patient will develop such needs in the very near future. These needs may be psychological, social, spiritual and/or physical. Examples may include complicated symptoms, specialist nursing needs, difficult family situations or ethical issues regarding treatment decisions.
3. Has been admitted to hospital acutely three or more times in the preceding 12 months.
4. The patient has an advanced progressive life-limiting disease.