The National COPD Resources and Outcomes Project (NCROP), incorporating the National COPD Audit 2008
Quality Indicators

Quality Indicators have been developed for four key areas of COPD service provision and are based on national or specialist society guidelines and / or a consensus of expert opinion. These indicators were used in the NCROP and the National COPD Audit 2008 to determine adherence to national standards.

Instructions to participants:

- Read each indicator (standard of care) and consider whether the practice within your Unit is compliant.
- Then record whether the indicator is: a) Met in full, b) Only partially met, c) Not met at all, by your Unit.

Non-Invasive Ventilation				
Quality Indicator		**Met in full**	**Only partially met**	**Not met at all**
1	NIV is used as the treatment of choice for persistent hypercapnic ventilatory failure during exacerbation despite optimal medical therapy[1].			
2	NIV is delivered in settings that are suitable for COPD patients: that is a designated area where staffs have been specifically trained in NIV. E.g. ICU, HDU, Emergency Admissions Unit or a dedicated Respiratory Ward[2].			
3	There is a named consultant responsible for the NIV service[3].			

[1] National Institute for Clinical Excellence, 2004. *National clinical guideline on management of COPD in adults in primary and secondary care*
[2] British Thoracic Society, 1997. BTS guidelines for the management of COPD. *Thorax*; Supplement 5: 1 – 28.
[3] British Thoracic Society, 1997. BTS guidelines for the management of COPD. *Thorax*; Supplement 5: 1 – 28.

4	There is an ongoing inter-professional training programme for ALL staff involved in the care of patients established on NIV[4].			
5	Nurses and doctors outside of specialist respiratory wards do know how to manage patients with COPD, and are aware of the indications for and benefits of NIV.			
6	There is a written protocol that defines the monitoring of patients receiving NIV, and includes a minimum of regular clinical assessment, pulse oximetry and arterial blood gas measurements.			
7	There is a clear set of individualised written instructions for the management of each patient receiving NIV, including what to do in the event of deterioration and agreed ceilings of therapy, along with an agreed protocol between ICU and the medical team[5].			
8	Locally adapted written protocols for the management of COPD patients requiring NIV, including weaning from NIV, are available in ALL relevant clinical areas for ALL relevant staff.			
9	A selection of nasal and full face masks, types and nasal pillows are available[6].			
10	All areas offering NIV provide written information for patients about the indications for and patient experience of NIV.			
11	There is a written policy for providing patient information about NIV to severe COPD patients whilst in a stable state e.g. in an out-patient setting or upon discharge from hospital.			

[4] British Thoracic Society, 2002. BTS guideline; non-invasive ventilation in acute respiratory failure. *Thorax*; 57: 192-211
[5] National Institute for Clinical Excellence, 2004. *National clinical guideline on management of COPD in adults in primary and secondary care.*
[6] British Thoracic Society, 1997. BTS guidelines for the management of COPD. *Thorax*; Supplement 5: 1 – 28.

12	There is an annual audit of the use of NIV including ALL clinical areas. This audit covers both those patients offered NIV to examine its appropriate use AND those that might have benefited for NIV but who were not provided with this therapy.			

Pulmonary Rehabilitation				
Quality Indicator		**Met in full**	**Only partially met**	**Not met at all**
1	There are written inclusion and exclusion criteria for the pulmonary rehabilitation programme and it is available to anyone with a diagnosis of COPD and MRC breathlessness scale of 2 - 4.			
2	The pulmonary rehabilitation programme is delivered by a multi-disciplinary team.			
3	There is a designated lead clinician and a named co-coordinator for the pulmonary rehabilitation programme.			
4	Pulmonary rehabilitation lasts a minimum of 6 weeks with exercise sessions twice a week.			
5	There is a continuation phase, run by people trained in pulmonary rehabilitation, in the community.			
6	The pulmonary rehabilitation programme includes education about living with COPD and ALL of the following issues: exercise, smoking cessation, diet, oxygen, social service support and benefits.			

7	Staff that supervise the exercise component of the pulmonary rehabilitation programme are trained in resuscitation to Advanced Life Support standard and basic life support equipment is available [oxygen, bronchodilators and GTN] during these sessions[7]			
8	The staff / patient ratio during the exercise component of the pulmonary rehabilitation programme is at least 1:8[8]			
9	The pulmonary rehabilitation programme provides written educational resources / leaflets for patients and carers.			
10	There are annual audits of the service that includes patient numbers AND outcomes AND patient satisfaction.			
11	Measurements such as spirometry, exercise and health status are recorded before and after pulmonary rehabilitation.			

Early Discharge Scheme				
Quality Indicator		**Met in full**	**Only partially met**	**Not met at all**
1	There are clear written criteria for acceptance on to the Early Discharge Scheme.			
2	The scheme is run by individuals who are capable of working independently and includes those specifically trained in respiratory medicine.			

[7] British Thoracic Society Standards of Care Committee, 2001. BTS statement: Pulmonary Rehabilitation. *Thorax*; 56: 827-834
[8] British Thoracic Society Standards of Care Committee, 2001. BTS statement: Pulmonary Rehabilitation. *Thorax*; 56: 827-834

3	There is a named clinician responsible for the service.			
4	There are clear written protocols of care for the management of patients under the early discharge scheme.			
5	Patients not accepted onto the scheme still receive a package of written smoking cessation / educational support.			
6	All COPD patients and their carers receive written information about the early discharge scheme that describes what it is, and the support that is available well in advance of them needing the service.			
7	All COPD patients and their carers receive written information about the early discharge scheme that describes what it is, and the support that is available well in advance of them needing the service.			
8	There are clear clinical links between the early discharge team and various members of the primary care team.			
9	There is continuous data collection along with both prospective and annual audits of the service to monitor its effectiveness.			

Oxygen services				
Quality Indicator		**Met in full**	**Only partially met**	**Not met at all**
1	There is a hospital based Long Term Oxygen Therapy [LTOT] assessment service			

2	There is screening in clinic of all patients with COPD to detect SaO2 <92%.			
3	The LTOT assessment includes optimising oxygen flow to achieve a PaO2 of 8kPa or greater using arterial blood gases.			
4	The LTOT assessment uses a concentrator machine as the oxygen source.			
5	For patients prescribed LTOT, follow-up arrangements are made as recommended by the BTS guidelines for home oxygen provision[9]			
6	There is a healthcare professional contact available to deal with queries from patients and carers concerning their oxygen therapy.			
7	Ambulatory oxygen is provided by the department for suitable patients.			
8	There is screening for suitability for ambulatory oxygen, including SaO2 measurement, before referral for assessment.			
9	For patients prescribed ambulatory oxygen, follow-up arrangements are made as recommended by the BTS guidelines for home oxygen provision[10]			
10	Written information is provided to all patients receiving oxygen[11]			

[9] British Thoracic Society, 2006. *Information on the New Home Oxygen Service*. Available at: http://www.brit-thoracic.org.uk/page294.html (22 August 2007)
[10] British Thoracic Society, 2006. *Information on the New Home Oxygen Service*. Available at: http://www.brit-thoracic.org.uk/page294.html (22 August 2007)
[11] British Thoracic Society, 2006. *Clinical Component for the Home Oxygen Service in England and Wales*.

11	All hospital based oxygen prescriptions are routed through the respiratory department.			
12	Short Burst Oxygen is provided by the department for suitable patients.			
13	Patients are assessed for suitability before receiving Short Burst Oxygen.			
14	Regular audits of oxygen prescribing are carried out.			

~ End ~