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North of England Commissioning Support

Care Bundle

Adult patients with COPD

North of England Commissioning Support
Medicines Optimisation on behalf of Cumbria CCG

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1. Introduction

1.1. What is a care bundle?

A care bundle is a set of interventions that, when used together, significantly improve patient outcomes. The measures chosen reflect best practice and are based on NICE quality standards or other national guidance. Care bundles have been used extensively and successfully in Secondary Care, their use in Primary Care is more recent. This care bundle is based on the work of Healthcare Improvement Scotland and the Scottish Patient Safety Programme in Primary Care.

Reliability in health care is a failure-free operation over time. This equates to ensuring patients receive all the evidence-based care they are entitled to receive.

A care bundle is a structured way of improving processes of care to deliver enhanced patient safety and clinical outcomes. In relation to care bundles, this means ensuring that patients receive optimum care at every contact. The process for achieving reliability is to implement this set of measures (a care bundle). The key measure in a care bundle is the score which measures the level of compliance with all measures for all patients.

The care bundle data collection tool is a way of sampling whether optimum care is being delivered by applying the bundle to a sample of patients. This approach is therefore very different from traditional auditing approaches that are designed to identify whether individual measures are being implemented.

1.2. What makes up a care bundle?

- 4-5 measures
- All or nothing compliance
- Measurement done by a non-clinician if possible
- Spread over patient's journey
- Evidence based
- Creates teamwork and communication
- Multiple functions of care essential for desired outcome

1.2.1. How should a care bundle be used in practice?

A care bundle is a quality improvement tool which can be used in general practice to identify both where care is in line with best practice and where improvements are needed. Some are disease specific and some are medication specific. The latter may also be known as patient safety bundles if they relate to high risk medication.

Bringing about changes in practice is not easy. To be an effective tool the results of the care bundle measurements must be discussed by ALL members of the team involved in the care of the patient. The practice team then need to take ownership of the issues identified and commit to changing the way care is provided, using tools such as the 'Plan, Do, Study, Act (PDSA) cycle.

Principles of successful measurement:

- The support of all members of the practice team should be obtained
- Data should be collected anonymously
- The results should be discussed by every member of the team
- The results should be used to plan and implement improvement initiatives
- Clinician support may be needed initially by the data collector until they are familiar with the measures.

1.3. Records

The care bundle is not a performance tool and so there is no requirement to report the measures achieved. The practice should keep a reflective log of improvements.

1.4. Resources

This care bundle has the following supporting resources:

- A word document data collection form
- An excel spreadsheet data collection form with a graphing function
- A reflective log template

Further information on Care Bundles and Improvement Models can be found at www.healthcareimprovementscotland.org/pspc.aspx

Further advice can be obtained from the Medicines Optimisation team, and specific queries about this care bundle can be directed to the author (details are on the front page).

2. Adult patients with COPD

2.1. Search Criteria

Please identify a random sample of up to 20 adult patients a month in your practice with a diagnosis of COPD. Use the data collection form to record the answer to each measure and transfer this to the spreadsheet. This should be repeated over a period of time, and the results discussed by the clinical team at regular intervals. Use of the spreadsheet will enable changes in practice to be monitored and compliance with the care bundle to be measured.

2.2. Measures

01

Measure	**Has the diagnosis been confirmed by post-bronchodilator spirometry showing FEV1/FVC<70%?**
Rationale	People with COPD should have one or more indicative symptoms recorded and have the diagnosis confirmed by post-bronchodilator spirometry carried out on calibrated equipment by healthcare professionals competent in its performance and interpretation. Airflow obstruction is defined as a reduced post-bronchodilator FEV1/FVC ratio (where FEV1 is forced expiratory volume in 1 second and FVC is forced vital capacity), such that FEV1/FVC is less than 0.7 (70%). Demonstration of the presence of airflow obstruction is critical to making the diagnosis of COPD. Spirometry is the only accurate method of measuring the airflow obstruction in patients with COPD. Peak expiratory flow measurement may significantly underestimate the severity of the airflow limitation.
Source	NICE CG 101 COPD 2010 http://www.nice.org.uk/guidance/CG101 NICE QS 10 COPD 2011 Statement 1. http://www.nice.org.uk/guidance/QS10/chapter/Quality-statement-1-Diagnosis http://medicines.necsu.nhs.uk/guidelines/cumbria-guidelines/

02

Measure	**Has the patient stopped smoking?**
Rationale	Getting patients with COPD to stop smoking is the single most important intervention. Stopping smoking slows the rate of decline in FEV1 with consequent benefits in terms of progression of symptoms and survival. Smoking cessation interventions, including the use of nicotine replacement therapy and/or bupropion are relatively cost effective in terms of the cost per life year saved. Encouraging patients with COPD to stop smoking is one of the most important components of their management. All COPD patients still smoking, regardless of age should be encouraged to stop, and offered help to do so, at every opportunity.

Source	NICE CG 101 COPD 2010 http://www.nice.org.uk/guidance/CG101 NICE QS 10 COPD 2011 Statement 5 http://www.nice.org.uk/guidance/qs10/chapter/Quality-statement-5-Smoking-cessation-support http://medicines.necsu.nhs.uk/guidelines/cumbria-guidelines/

03

Measure	**Has the patient participated in care planning to develop an individualised management plan?**
Rationale	The aim of self-management is to prevent exacerbations by life style adaption and to allow patients to acquire the skills to treat their exacerbation at an early stage. Self-management plans in COPD are designed to enable patients to respond appropriately to the first signs of an exacerbation and are not concerned with minor day-to-day variations in symptoms. If used correctly they will often lead to patients starting courses of antibiotics or oral steroids that they have been given to keep at home and may lead to reduced hospital admissions. Self-management plans need to be structured in a way that takes into account the age and mental state of patients with COPD.
Source	NICE CG 101 COPD 2010 http://www.nice.org.uk/guidance/CG101 NICE QS 10 COPD 2011 Statement 2 & 7. http://www.nice.org.uk/guidance/QS10/chapter/Quality-statement-2-Management-planning http://www.nice.org.uk/guidance/QS10/chapter/Quality-statement-7-Management-of-exacerbations

04

Measure	**Has the patient attended pulmonary rehabilitation?**
Rationale	Pulmonary rehabilitation should be made available to all COPD patients with a degree of functional disability (MRC 3 and above) including those who have had a recent hospitalisation for an acute exacerbation. Pulmonary rehabilitation is an increasingly popular and effective option for patients with moderate to severe COPD. Rehabilitation aims to prevent deconditioning and allow the patient to cope with their disease.
Source	NICE CG 101 COPD 2010 http://www.nice.org.uk/guidance/CG101 NICE QS 10 COPD 2011 Statement 6. http://www.nice.org.uk/guidance/qs10/chapter/Quality-statement-6-Pulmonary-rehabilitation http://www.impressresp.com/index.php?option=com_docman&task=doc_view&gid=51&Itemid=82 http://medicines.necsu.nhs.uk/guidelines/cumbria-guidelines/

05

Measure	**Has the patient had a medication review (including inhaler technique) in the past 12 months to start, review & stop medications in accordance with NICE guidance?**

Rationale	Patients with COPD should be reviewed at least once per year, or more frequently if indicated (twice a year if very severe)
	• Smoking status and desire to quit
	• Adequacy of symptom control:
	  ○ Breathlessness
	  ○ exercise tolerance
	  ○ estimated exacerbation frequency
	• Presence of complications
	• Effects of each drug treatment
	• Inhaler technique
	• Need for referral to specialist and therapy services
	• Need for pulmonary rehabilitation
	The devices used to deliver drugs to the lungs are, in many respects, as important as the drugs themselves. If the device is inefficient at delivering the drugs to the lungs or is difficult for patients to learn, or remember how to use then the effectiveness of the therapy will be reduced.
	Most patients whatever their age are able to acquire and maintain adequate inhaler technique given adequate instruction. The exception to this is that those with significant cognitive impairment.

Source	NICE CG 101 COPD 2010 http://www.nice.org.uk/guidance/CG101 NICE QS 10 COPD 2011 Statement 3 & 4 http://www.nice.org.uk/guidance/qs10/chapter/Quality-statement-3-Inhaled-and-oral-therapies http://www.nice.org.uk/guidance/QS10/chapter/Quality-statement-4-Annual-comprehensive-assessment

Appendix One: Abbreviations

Abbreviation	Definitions
NICE	National Institute for Health and Care Excellence
SPC	Summary of Product Characteristics
NICE CG	NICE Clinical Guideline
NICE QS	NICE Quality Statement
COPD	Chronic Obstructive Pulmonary Disease
ICS	Inhaled Corticosteroids
FEV1	Forced Expiratory Volume in 1 second
FVC	Forced Vital Capacity
MRC	Medical Research Council