This report has been produced by the Yorkshire & Humber Respiratory Team. It highlights opportunities that will help you improve quality and productivity and improve outcomes for people with COPD in your CCG locality.

For more details contact: Lisa.chandler@nhs.net
COPD Value Pyramid (1) (2)

This pyramid illustrates cost effectiveness of treatment options in COPD; it is not a treatment algorithm. For guidance on management of COPD visit: www.nice.org.uk/cg101

A quality adjusted life-year (QALY) is the arithmetic product of life expectancy and a measure of the quality of the remaining life-years.

NICE defines an intervention to be cost effective if it costs less than £20,000-£30,000 per QALY.

The pyramid shows that the most cost effective interventions for COPD are influenza vaccination, stopping smoking and pulmonary rehabilitation and should underpin pharmacological treatment.

*Costing calculations based on Tiotropium
COPD Pathway

COPD 8
Flu vaccination
Calderdale CCG
94.3%
(Range 85.7%-100%)

PREVENTION

Smoking cessation rates
Find Undiagnosed COPD population and increase early diagnosis of mild disease
Social marketing to raise awareness of COPD
Targeted case finding to increase early diagnosis rates

COPD 9
Flu vaccination
Calderdale CCG
94.3%
(Range 85.7%-100%)

DIAGNOSIS

Stratify population according to COPD disease severity
Identify Pulmonary Rehabilitation referral rate MRC >=3

COPD 10
Review with FEV₁
Calderdale CCG
90%
(Range 78.7%-100%)

MANAGEMENT OF STABLE COPD

Inhaler technique & adherence with treatment
Self management education and care planning
Identify groups at high risk of admission and optimise treatment of COPD and co-morbidities

COPD 11
Review with FEV₁
Calderdale CCG
90.4%
(Range 78.7%-100%)

MANAGEMENT OF UNSTABLE COPD

Identify frequent flers & optimise management
Self management education, written action plans and rescue packs
Early pulmonary rehabilitation post admission
Find Undiagnosed COPD population and increase early diagnosis of mild disease

COPD 12
Review with FEV₁
Calderdale CCG
93%
(Range 78.7%-100%)

END OF LIFE CARE

Use of trigger tools to identify patients approaching end of life
Involve palliative care team

Figures for COPD pathway: see references for Table 1
COPD Mortality

- Calderdale’s patients lose around 18.90 years of life due to mortality from Bronchitis, Emphysema and other COPD England 11.67 Yorkshire and the Humber 14.1 Range 8.7-23.
- Nationally, 70% of COPD patients die in the hospital (1)

Rate of admissions vs the prevalence of COPD in CCG General Practices

- It is predicted that Calderdale CCG has 5475 COPD patients. QOF 2011/12 reports 3819 have been diagnosed by GPs (4).
- In 2011-12, there were 510 admissions for acute exacerbations (AE) COPD in Calderdale CCG patients.
- A total of 2654 bed days were associated with AE COPD admissions
- Average cost of each COPD admission for Calderdale is £2,073
- Nationally 10% of emergency COPD admissions are in people whose COPD has not previously been diagnosed (5).
- Average rate of admission for patients/100 on COPD register in Calderdale CCG was 13.84 (YH Range 9.92-23.12)
- 7.1% of all admissions in Calderdale patients were for 0 bed days (YH Range 2.6%-12.2%)

Smoking Prevalence in Long Term Conditions Patients in CCG General Practices

- Smoking is the biggest risk factor for development of COPD. Smokers over 35 with one or more symptoms will be the majority of unidentified population.
- Stopping smoking is the most cost effective treatment for COPD, stop smoking support with pharmacotherapy costs £2000 per QALY.
- Stopping smoking is the only intervention shown to slow disease progression. It costs more to treat people with severe disease than mild or moderate disease (5).
- Supporting practices with high smoking prevalence in your CCG will significantly improve quit rates across the patch.

Spend on Inhalers for COPD and Asthma Patients in Calderdale PCT

- Calderdale PCT 2011/12 total spend on inhalers is £3,688,148.16
- 50% of patients cannot use their inhalers correctly (6).
- 45% of patients forget to take doses as prescribed.
- 30% of patients stop treatment due to lack of perceived benefits (7).
- Patients with poor inhaler technique are 50% more likely to be admitted (6).
- Patients with poor inhaler technique are 60% more likely to have an exacerbation (8).
Optimising best value COPD care in Calderdale (QIPPS)

This page outlines specific areas that need to be examined and considered locally in order to:

- Reduce premature mortality
- Reduce admissions
- Increase smoking cessation / quit rates
- Reduce prescribing costs (this is currently headed in the table as ‘smoking cessation/quit rates’)

### Areas for consideration

#### Reduce premature mortality

- Early Identification of COPD
- Promote vaccination
- Support smoking cessation efforts
- Increase patient’s activity levels, refer to pulmonary rehabilitation
- Optimise treatment according to guidelines
- Commission specialist assessment during COPD admissions and adequate access to Non invasive Ventilation (NIV)
- Provide appropriate and targeted Oxygen prescription in both emergency and elective settings

#### Reduce admissions

- Target COPD patients for flu and pneumonia vaccinations as COPD death is a potential vaccine preventable event
- Regularly offer stop smoking advice
- Commission pulmonary rehabilitation for patients with MRC score of more than 3 or with MRC score of 2 and who have had an exacerbation OR post admission. The numbers needed to treat (NNT) with Pulmonary Rehabilitation is 4 to avoid 1 admission
- Record exacerbations and optimise pharmacotherapy
- Provide self-management education, action plans and rescue medication packs
- Provide “Hospital at Home” services
- Commission CQUIN core bundles on discharge
Areas for consideration

Inappropriate admissions of End of Life Care COPD Patients

- Identify patients approaching last year of life using trigger tools (9)
- Add them to Gold Standard Framework (GSF) Register
- Conduct Multi Disciplinary Team (MDT) assessment of GSF review
- Refer to End of Life care services if appropriate
- Provide additional measures for palliation of breathlessness (e.g. opiates)

Smoking cessation

- Make every contact count. “Ask, Advise, Act” at every opportunity in primary or secondary setting
- Increase access to smoking cessation advice – in general practice or specialist services
- Ensure GP teams delivering smoking cessation advice have adequate skills and training to increase quit rates using motivation techniques and behavioural support
- Prescribe adjunct pharmacotherapy as this increases success;

<table>
<thead>
<tr>
<th>Numbers Needed to Treat (NNT) to Obtain 1 Long-Term Quitter (7) (8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief advice (45 minutes)</td>
</tr>
<tr>
<td>Medication Plus behavioural support</td>
</tr>
<tr>
<td>NRT</td>
</tr>
<tr>
<td>Bupropion</td>
</tr>
<tr>
<td>Varenicline</td>
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</tbody>
</table>

Reduce inappropriate prescribing and waste (1) (10)

- Make every contact count, check inhaler technique and adherence with therapy at every opportunity in primary and secondary settings.
- Use structured review to ensure right patient, right treatment, right time
- Work with community pharmacists using structured MURS.

The report was shared with Calderdale CCG prior to publication. If you would like further information about Respiratory Disease in Calderdale please contact:

Name: Dr Nigel Taylor
Role: Respiratory Lead – NHS Calderdale CCG
Email: Nigel.taylor@calderdale.nhs.uk
References

All information displayed at CCG level unless only available by PCT

Data sources:

1. IMPRESS Guide to relative value COPD interventions
2. NICE COPD guidelines ; www.nice.org.uk/cg101
4. Eastern Region Public Health Observatory COPD prevalence estimates December 2011 –
5. An outcome strategy for chronic pulmonary disease (COPD) and Asthma in England – July 2011-Department of Health.
6. Restepo et al, Int of of Chron Pulmon Dis 2008; 3 (3); 3712384
9. GSF toolkit http://www.goldstandardsframework.org.uk/theGSFToolkit
10. PCRS opinion sheet on COPD review; http://www.pcrs-uk.org/opinions/copd_review_final.pdf
Data sources for Tables

Table 1

(b) QOF 2011-12; Yorks & Humber SHA CCG GP practices COPD prevalence data; Filename: http://www.ic.nhs.uk/webfiles/publications/002_Audits/QOF_2011-12/Practice_Tables/QOF1112_Pracs_Prevalence.xls; accessed 2 Nov 2012
(c) GP Practice to Clinical Commissioning Group Mappings - created 26/10/12; Filename: http://www.connectingforhealth.nhs.uk/systemsandservices/data/ods/ccginterim/interimpcmem_v3.zip; accessed 5 Nov 2012

Table 2


Table 3

Spend on inhalers national ePACT system (electronic Prescribing and Cost Trend) Analysis tool via ePACT.net

Funnel plots extracted from GlaxoSmithKline Ltd. presentation to Lisa Chandler given on 20 December 2012; Title: An introduction to Statistical Process Control (SPC) and associated analysis with data for: Yorkshire & Humber SHA CCG practices
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