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

- Doncaster’s patients lose around 17.76 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 Doncaster CCG has 9402 COPD patients. QOF 2011/12 reports 7822 have been diagnosed by GPs (4).
- In 2011-12, there were 945 admissions for acute exacerbations (AE) COPD in Doncaster CCG patients.
- A total of 6644 bed days were associated with AE COPD admissions.
- Average cost of each COPD admission for Doncaster is £2,229.
- 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 Doncaster CCG was 12.26 (YH Range 9.92-23.12).
- 10.9% of all admissions in Doncaster patients were for 0 bed days (YH Range 2.6%-12.2%).

Smoking attributable hospital admissions per 100,000 population aged 35 years and over

- 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.
- Supporting practices with high smoking prevalence in your area.

Spend on Inhalers for COPD and Asthma Patients in Doncaster PCT

- Doncaster PCT 2011/12 total spend on inhalers is £7,111,322.31.
- 50% of patients cannot use their inhalers correctly.
- 45% of patients forget to take doses as prescribed.
- 30% of patients stop treatment due to lack of perceived benefits.
- Patients with poor inhaler technique are 50% more likely to be admitted.
- Patients with poor inhaler technique are 60% more likely to have an exacerbation.
Optimising best value COPD care in Doncaster (QIPP)

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’)

<table>
<thead>
<tr>
<th>Areas for consideration</th>
<th>Current provision in Doncaster</th>
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<tbody>
<tr>
<td><strong>Reduce premature mortality</strong></td>
<td><strong>Reduce premature mortality</strong></td>
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<tr>
<td>Early Identification of COPD</td>
<td>Promote vaccination</td>
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<tr>
<td>Promote vaccination</td>
<td>The Public Health Team target “at risk” groups each year to promote and increase uptake of influenza and pneumonia vaccination.</td>
</tr>
<tr>
<td>Support Smoking Cessation efforts</td>
<td>Pulmonary Rehabilitation</td>
</tr>
<tr>
<td>Increase patient’s activity levels, refer to pulmonary rehabilitation</td>
<td>NHS Doncaster commissions a pulmonary rehabilitation service; we are currently working with the provider to improve access, uptake and completion rates.</td>
</tr>
<tr>
<td>Optimise treatment according to guidelines</td>
<td>Local Guidelines and Education</td>
</tr>
<tr>
<td>Commission specialist assessment during COPD admissions and adequate access to Non invasive Ventilation (NIV)</td>
<td>Local guidelines for diagnosis, stable and acute management are in development</td>
</tr>
<tr>
<td>Provide appropriate and targeted Oxygen prescription in both emergency and elective settings</td>
<td>Local promotion of rescue packs and action plans</td>
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<td></td>
<td>COPD handbook issues to patients includes record of exacerbations and details of self management plan</td>
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<td></td>
<td>Education events for Health Professionals in development and practices to be offered education and support to increase concordance with evidence based practice</td>
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<tr>
<td></td>
<td>Specialist assessment and access to NIV</td>
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<tr>
<td></td>
<td>COPD CQUIN in place with secondary care to support identification and access to NIV</td>
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<tr>
<td></td>
<td>Oxygen assessment and prescription</td>
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<tr>
<td></td>
<td>Business case in development for Home Oxygen Service Assessment and Review service</td>
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<tr>
<td>Reduce Admissions</td>
<td>Reduce Admissions and Readmissions</td>
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<tr>
<td>• Target COPD patients for flu and pneumonia vaccinations as COPD death is a potential vaccine preventable event.</td>
<td>• The above actions in relation to reducing premature mortality will have an impact on reducing admissions.</td>
</tr>
<tr>
<td>• Regularly offer stop smoking advice.</td>
<td>• A Care bundle CQUIN is in place with DBHFT to ensure patients admitted with exacerbation of COPD have treatment in accordance with NICE Quality standards.</td>
</tr>
<tr>
<td>• 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.</td>
<td>• Hospital at home scheme, including admission prevention and early facilitated discharge in place.</td>
</tr>
<tr>
<td>• Record exacerbations and optimise pharmacotherapy.</td>
<td></td>
</tr>
<tr>
<td>• Provide self management education, action plans and rescue medication packs.</td>
<td>Inappropriate admissions of End of Life Care COPD Patients</td>
</tr>
<tr>
<td>• Provide “Hospital at Home” services.</td>
<td>• Raising awareness with key health care professionals re identification of those reaching end of life.</td>
</tr>
<tr>
<td>• Commission CQUIN core bundles on discharge.</td>
<td>• Community Respiratory Service provide additional support and advice at end of life across the health economy.</td>
</tr>
</tbody>
</table>

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>
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<tr>
<td>Brief advice (45 minutes)</td>
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<tr>
<td>Medication Plus behavioural support</td>
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<tr>
<td>NRT</td>
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<tr>
<td>Bupropion</td>
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<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.

Smoking Cessation

- Smoking cessation services within primary care and pharmacies are commissioned supporting patient choice.
- We currently have a model of specialist and LES services that deliver 4-week quits and but with no reduction in smoking prevalence and associated morbidity. Public Health will be implementing a comprehensive tobacco control programmes that support smoke free lives.

For more information about the smoking cessation programme contact: Kerry Warhurst, Public Health Specialist Starting & Developing Well Programme and Tobacco control. Email: kerrywarhurst@doncasterpct.nhs.uk

Reduce inappropriate prescribing and waste (1) (10)

- Community Pharmacy project to optimise respiratory Medicines Use Reviews. Funded by SHA working with Practices and Community Pharmacists to support improved management of Respiratory Patients through tMURs.
- Use of CQUIN bundles to encourage inhaler technique review during hospital admission or Emergency Department attendance

For more information about any element of the Respiratory Pathway please contact:

Name: Jo Forrestall
Role: Manager-Strategy and System Management
E-mail: joanne.forrestall@doncasterpct.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/interimpcmем_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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