NHS
Yorkshire and the Humber

NHS Hull

Clinical Commissioning Group

2013

Yorkshire & Humber Respiratory Programme Report

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.

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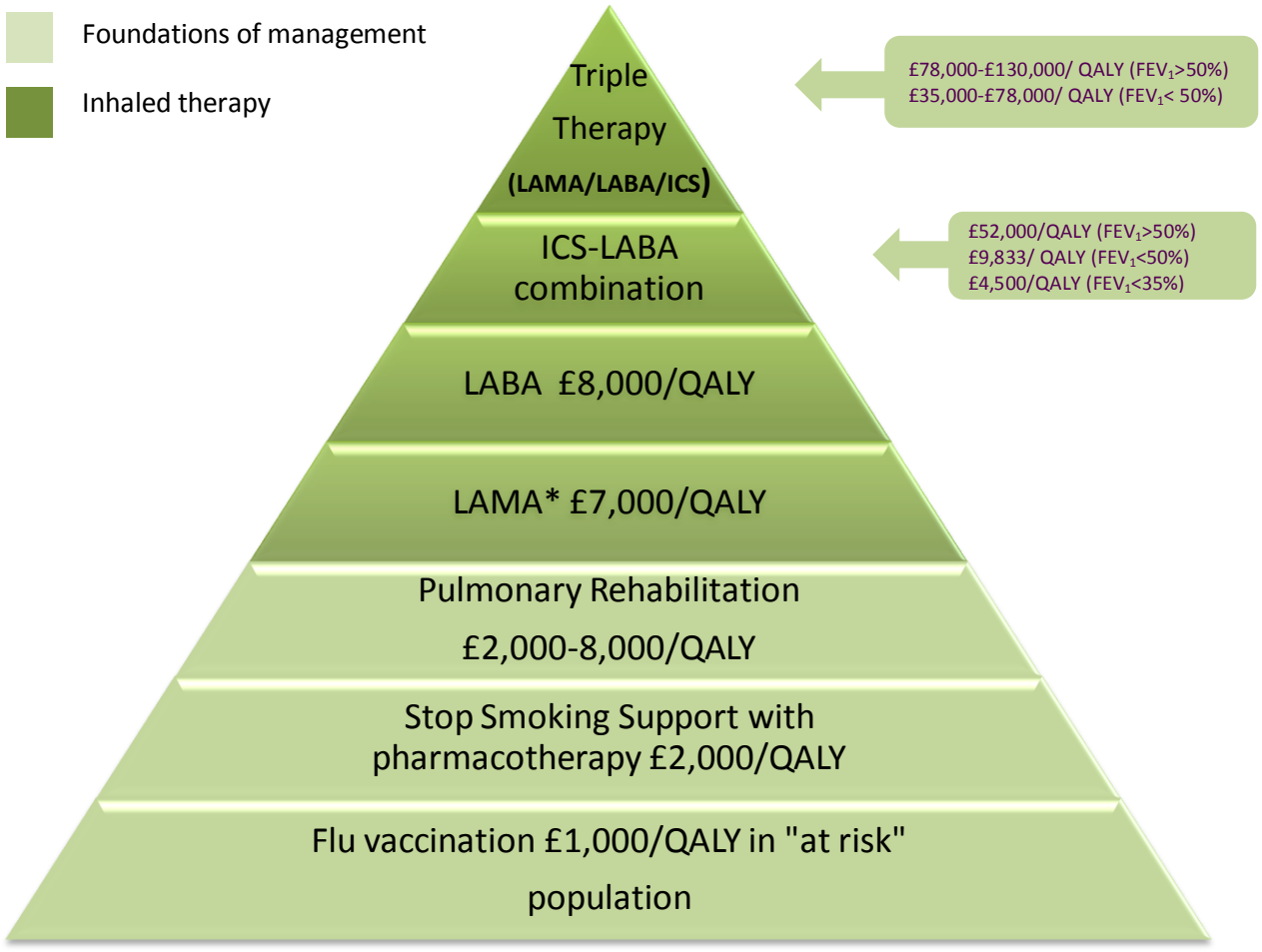
COPD Value Pyramid (1) (2)

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

PREVENTION

COPD 8 Flu vaccination
Hull CCG
93.9%
(Range 84.4%-100%)

Smoking cessation rates

DIAGNOSIS

COPD 15 Diagnostic Spirometry
Hull CCG
90.9%
(Range 0%-100%)

Stratify population according to COPD disease severity

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

MANAGEMENT OF STABLE COPD

COPD 13 MRC Score
Hull CCG
90.7%
(Range 61.4%- 100%)

Identify Pulmonary Rehabilitation referral rate MRC >=3

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 10 Review with FEV_1
Hull CCG
88.7%
(Range 69.8%-100%)

MANAGEMENT OF UNSTABLE COPD

Refer to page 4 for admission data
Use of admission & discharge bundles

Access to hospital at home services

Identify frequent fliers & optimise management

Self management education, written action plans and rescue packs

Early pulmonary rehabilitation post admission

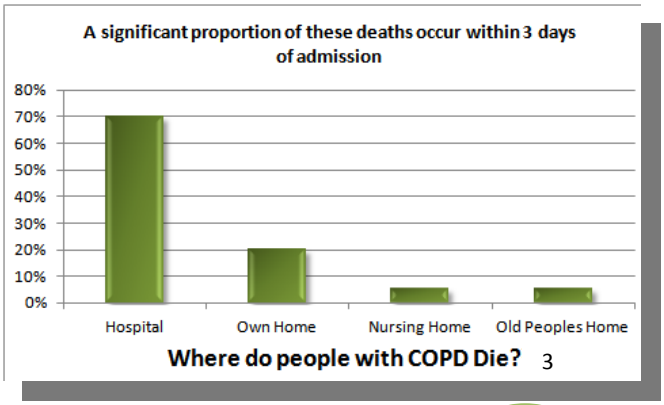
Find Undiagnosed COPD population and increase early diagnosis of mild disease

END OF LIFE CARE

Number of patients on GSF register

Use of trigger tools to identify patients approaching end of life

Involve palliative care team



Figures for COPD pathway obtained from QoF 2011/12 http://www.gpcontract.co.uk/

GP practice to CCG look up table http://www.conectingforhealth.nhs.uk

COPD Mortality

Domain 1

Domain 4

- Hull's patients lose around 23.74 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)

Domain Key

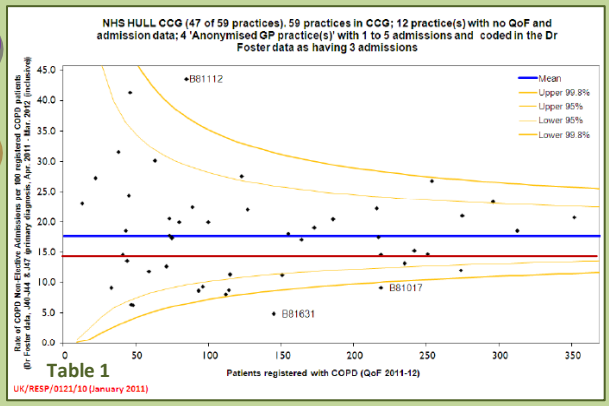
NHS Outcomes Framework

Public Health Outcomes Framework

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

Domain 1

Domain 4

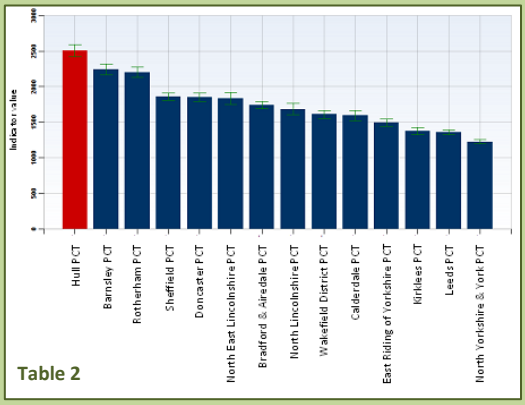


- It is predicted that Hull CCG has 12075 COPD patients. QOF 2011/12 reports 6778 have been diagnosed by GPs (4).
- In 2011-12, there were 1113 admissions for acute exacerbations (AE) COPD in Hull CCG patients. A total of 7440 bed days were associated with AE COPD admissions
- Average cost of each COPD admission for Hull is £2,231
- 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 Hull CCG was 17.65 (YH Range 9.92-23.12)
- 8.5 % of all admissions in Hull 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

Domain 1

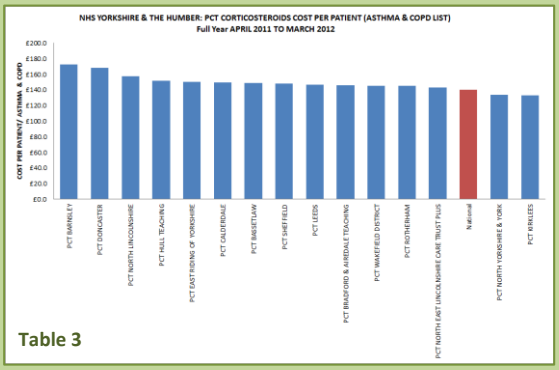
Domain 4



- 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 Hull PCT

Domain 1



- Hull PCT 2011/12 total spend on inhalers is £5,738,770.02
- 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 Hull (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;

Numbers Needed to Treat (NNT) to Obtain 1 Long-Term Quitter (7) (8)	
Brief advice (45 minutes)	40
Medication Plus behavioural support	
NRT	23
Bupropion	18
Varenicline	10

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.

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References

All information displayed at CCG level unless only available by PCT

Data sources:

1. *IMPRESS Guide to relative value COPD interventions http://www.impressresp.com/index.php?option=comdocman&itemid=82*
2. *NICE COPD guidelines ; www.nice.org.uk/cg101*
3. *Deaths from Respiratory Diseases: Implications for end of life care in England - June 2011. National End of Life Care intelligence network and national end of life care programme*
4. *Eastern Region Public Health Observatory COPD prevalence estimates December 2011 – http://www.apho.org.uk/resource/item.aspx?RID=111122*
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*
7. *Van Ganse et al, PCRJ 2003; 12 (2): 46-51*
8. *Garcia-Aymerich et al, Eur Respir J 2000 ; 16; 103721042*
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 *(a) Foster/IMS Regional Healthcare Analysis data, COPD Non – Elective Admissions (J40-44 & J47), Yorks & Humber SHA CCG GP practices, April 2011 – March 2012, accessed 28 November 2012*
(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
(d) QOF 2011-12; GP practice prevalence data; Filename: https://catalogue.ic.nhs.uk/publications/primary-care/qof/qual-outc-fram-11-12-prac/qual-outc-fram-11-12-prac-prev.xls; accessed 20 Jan 2013
(e) QOF 2011-12; COPD clinical domain data; Filename: https://catalogue.ic.nhs.uk/publications/primary-care/qof/qual-outc-fram-11-12-prac/QOF-11-12-data-tab-pracs-copd.xls; accessed 20 Jan 2013
(f) Eastern Region Public Health Observatory - COPD Prevalence Estimates Dec 2011; Filename: http://www.apho.org.uk/resource/item.aspx?RID=111122; accessed 20 Jan

Table 2 *http://www.lho.org.uk/viewResource.aspx?id=17431*

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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