Better community respiratory care

Dr Roland Meyer
Respiratory Physician
Southern DHB
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Integration: What is needed?

- Raise profile of disease
- Strong management in primary care
- Good communication between 1º and 2º care
- Services closer to patient
- No duplication
- Multidisciplinary
- “Appropriate care in appropriate place”
Model of care

Healthy community

Prevention

Screening, Early Detection and Intervention

Management

Complex Support

End of Life

More people stay well

More people are seen and treated early

Less people need hospital care

Less needless deaths

Death with dignity

Community is well. Education and support to self-modify lifestyle is available.

Screening programmes are available. People are aware of signs and symptoms and seek help early

People are supported to stay in their community.

When required, more complex care is available in a timely manner.

Care and support is available to meet all health needs in an holistic way.

No needless pain, no needless death, more quality years

Population

Consumer Journey

Aim

Expectation

Opportunities

Education and information sharing

Health Services Planning: Macro Map of Care Diagram

April 2007

Health Services Planning: Macro Map of Care Diagram

April 2007
Integration: The key to success

- Show the outcomes for patients
- Easy access, less barriers ("the fee system")
- Easy process, less "red tape" (reimbursements, what is DHB funded and what is not?, has just changed again?, responsive within HSS in deficit)
- Transparent – well communicated (="no threat")
- "Shared Vision"
- Clinical leaders (engaged, empowered, supported=can sustain)
NZ respiratory care 2009/10

- Uneven, variable
- Often “hospital centric”, poor access for many
- Little flexibility, responsiveness
- Unmet need (undiagnosed COPD, OSA)
- Avoidable morbidity / mortality
- Prevention: Only a little
- Screening: None
Underdiagnosis of COPD

Diagnosed COPD: 2.4 - 7 million

Estimated total COPD: 16 million

56 - 85% Undiagnosed/misdiagnosed

US estimates: Stang, 2000
Examples of challenges faced by patients

- Access often difficult, e.g.,
  - Spirometry
  - Sleep
  - Pulmonary Rehabilitation
  - Respiratory physician

- No care pathways; variable care management

- Little combined communication between primary and secondary care

- Insufficient information for appropriate triage, leading to
  - Clinician uncertainty
  - Treatment delays

- Only <5% of referrals for Pulmonary Rehabilitation from GPs

- Patients with chronic lung problems often do not know what to do if they are unwell
THE BURDEN

- COPD disease burden:
  - 65,000 smokers (6-8y of life)
  - COPD known to GP ? 7,000
  - COPD Consultations ~42,000
  - 15,000 do not yet know what is wrong
  - By the time they do ½ of lung has "gone"
  - High admission rate
  - High mortality rate
  - High co-morbidities (Lung cancer, diabetes, cardiovascular disease, anxiety/depression)

- Asthma disease burden: Estimated 50,000 people

- OSA disease burden:
  - Estimated 20,000 people
“thank you for seeing... urgently. She has been troubled by worsening dyspnea. A recent Chest Xray suggests interstitial lung disease....”

Triaged “urgent/ next available ” Cat4

Dear ..your GP has referred you for a specialist assessment- this has been accepted under the “urgent / next available” category, you should be sent an appointment within the next 4 months.”
Triage 4 - Urgent FSA's Seen In Respiratory Since 2007

Days Waiting to be Seen
“thank you for seeing.... She has been troubled by debilitating cough. A recent Chest Xray was reported to be normal....”

Triaged “routine” Cat5

Dear ..your GP has referred you for a specialist assessment- this has been accepted under the “routine” category, you should be sent an appointment within the next 6 months.”
Triage 5 - Semi Urgent FSA's Seen In Respiratory
Since 2007

Days Waiting to be Seen
COPD frequent admissions

- 54 Canterbury patients “frequent respiratory admissions” in 2005/06
- 1 with 10 admissions; 1 with 9; 3 with 8; 4 with 7; 11 with 6; 8 with 5 and 27 patients with 4 admissions each in 1 year period

Patient X

- 8 resp IP episodes (1-12d LOS, total 31d—CWD 13.2)
- 2 general medicine IP episodes (2, 6d – CWD 1.2)
- 2 cardiology (1, 2d—CWD 1.1)
- Resp OPD x 3; Cardiology OPD x 2; ClinPsychol OPD x 2
- CRO Education visits x 3, physio x 11
- Diagnostic test appt x 4
- OPD cancellations x 3
  - Usually NOT seen by GP in between
Obstructive sleep apnea

- Mr X, age 54, snorer since early 20s
- Reports of apnea since early 40s
- Always “heavy’ but 20kg gain last 10y
- Never feeling refreshed AM
- High BP for years, now on 3 meds, 3monthly checks
- Went off the road during 200km trip
- OE: BMI =39, rhinitis, BP=165/100, neck 48cm
- Epworth sleepiness score =16/24
- Sleep study: Apnea-Hypopnea-Index=65
2009: Intent for patients, the public:

- Better access to health services
- Less delay
- Less uncertainty
- More equitable
- Better outcomes – less morbidity
- Less hospital visits – better chronic disease management
2009: Intent for health professionals:

- Better supports and systems by using pathways
- Better networks across the sector
- New skills and recognition for it
- When referring:
  - Less uncertainty
  - More transparency
  - Less “red tape”
- Less gridlock, reduced waiting lists
Pathways

HealthPathways

Welcome to Canterbury HealthPathways

Local Information for General Practitioners on:
- Management of conditions
- First Specialist Assessment referral criteria
- What to include with your referral

New to HealthPathways
- Child Health - Reflux (GER)
- Chronic Obstructive Pulmonary Disease (COPD)
- Gynaecology - Urinary Incontinence
- See the table of contents for more conditions

Please note: This website is currently under construction. Many more conditions will be added over the following months. It is important you read this disclaimer before using the information in this site. Use the Send Feedback button in the top right corner of any page to suggest a condition you would like to see added, make comments, or to advise of broken links or numbers that need to be changed.

- Greater awareness
- Improved access
- Empowerment

Last updated Wednesday, 5 November 2008.
In This Section
- COPD
- Chronic Cough
- Dyspnoea
- Haemoptysis
- Adult Sleep Disordered Breathing
- Outpatient Referral - Respiratory
- Community Respiratory Physician
- Respiratory Nurse Facilitators
- Sleep Assessment Providers
- Spirometry Providers
What actually is the diagnosis?
Community based tests

Spirometry measures how fast and how much air you breathe out.
Chronic Cough Flow Chart

Click on red boxes for more information.

Arrange chest X-ray

Results? Abnormal

Refer to Respiratory Outpatient Department (urgently if red flags are present)

Is cough productive? Yes

Arrange sputum testing and treat as indicated

No

If the patient is a smoker, provide intervention and cessation advice

Is patient on ACE inhibitor? Yes

Stop for 3 months and consider alternative

No

Concern re whooping cough? Yes

Serology testing, if positive treat symptoms and notify Community & Public Health

No

Spirometry test with bronchodilator

Obstruction with significant reversibility? Yes

Treat for bronchial asthma for > 2 weeks

No

Consider reflux, PNDS, or rhinosinusitis

Condition improves?

No
Identification and diagnosis through Spirometry Test

Treatment Disease Management Support Services

On-going monitoring and diagnostics

Progression of condition

Status change?

Acute episode management

Arranged GP follow-up (1-2 weeks)
Education is a very important component of COPD management at all stages.

**Patient Information**

- **Support Services**
- **COPD Self-Management Plan**
- The [Asthma and Respiratory Foundation](https://www.asthma.org.nz) has the following COPD fact sheets
  - COPD at a glance
  - Energy Savers
  - Home Exercises
  - COPD & Stress
  - Talking with your doctor about COPD

**Useful Websites for Patients**

- [www.copdfoundation.org](http://www.copdfoundation.org)
- [www.copd-international.com](http://www.copd-international.com)
- [www.lungusa.org](http://www.lungusa.org) - Including "Living Life to the Fullest with COPD"
  and "Living Well with Chronic Lung Disease"
- [www.lunguk.org](http://www.lunguk.org) - Including "COPD: living with chronic obstructive pulmonary disease"
  and "Going on holiday with a lung condition"

**Staying Well**

- [www.asthmanz.co.nz](http://www.asthmanz.co.nz) has fact sheets with tips for making homes healthier.
  Keep living rooms at 18-20° and bedrooms at 16° at night to prevent cold related illness.
  Disability allowance may be available through WINZ to assist in paying heating bills.
- [Community Energy Action](https://www.communityenergyaction.co.nz) - subsidies for home insulation
  Patients may be eligible for the ‘Warm Families’ programme.
Model for LTC

Supported Self Care

Disease Management

Case Management

Level 1
70-80%

Level 2
High Risk Patients

Level 3
Highly Complex Patients
### COPD-X Checklist

#### Diagnosis and Management of COPD

**C - Confirm diagnosis**

**Presence and history of symptoms:**
- [ ] Shortness of breath
- [ ] Cough
- [ ] Sputum production

**Smoking - history and willingness to quit:**
- [ ] Smoker
- [ ] Non-smoker
- [ ] Previous smoker
- [ ] Other smoking-related disease

**Willingness to quit**
- [ ] high
- [ ] medium
- [ ] low
- [ ] Packyears

**Spirometry - measure FEV₁ and FEV₁/FVC and assess reversibility of airflow limitation**

Spirometry is essential for case finding, to differentiate between asthma and COPD, and to determine the degree of disease severity.

<table>
<thead>
<tr>
<th></th>
<th>Pre-bronchodilator</th>
<th>% pred</th>
<th>Post-bronchodilator</th>
<th>Reversibility (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEV₁</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FVC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEV₁/FVC</td>
<td></td>
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COPD is defined as post-bronchodilator FEV₁/FVC < 0.70 and FEV₁ < 80% predicted if following 2 Narrominal obstructive pulmonary disease (COPD) criteria.
Figure 6  Clinical algorithm for the treatment of chronic obstructive pulmonary disease by Global Initiative for Chronic Obstr
Disease (GOLD) stage. Clinical stages are defined symptomatically. (Reprinted with permission from BMJ.45)
SHORTNESS OF BREATH SCALE
This shortness of breath scale may help you to recognise when your breathing becomes difficult.

1. MILD noticeable to you but not others
2. MILD, SOME DIFFICULTY noticeable to others
3. MODERATE DIFFICULTY but can continue activities
4. SEVERE DIFFICULTY you cannot continue activities

KEEP ACTIVE
- People with COPD can feel short of breath with activity even when well
- Regular exercise makes breathing easier and helps keep you well
- Learn to walk/move at a slower pace to avoid regular stops to catch your breath

TIPS TO HELP WITH BREATHING
- Breathe in through the nose
- Breathe out with pursed or puckered lips (as if you are whistling)
- Try to keep your shoulders relaxed and lean forward with your arms supported on a hard surface

USING A Spacer
If you use a metered dose inhaler, a spacer will help get medication into the lungs. Ask your doctor about a spacer if you don’t already have one.

1. Shake the inhaler well (holding it upright)
2. Fit the inhaler into the opening at the end of the spacer
3. Seal lips firmly round the mouthpiece
4. Press the inhaler once only
5. Take 5-6 slow breaths in and out through your mouth. Do not remove the spacer from your mouth between breaths
6. Remove spacer from your mouth
7. Repeat these steps (1 - 6) for further doses
8. Wash the spacer once a week with warm water and dishwashing liquid
   Do not rinse. Drip dry. This reduces the electrostatic charge so that the medicine does not stick to the spacer sides

COPD
(A chronic lung disease)
Management Plan
Every March see your doctor for an influenza vaccine

Supported by
Boehringer Ingelheim

This COPD Management Plan belongs to:

Helping people to breathe easier
< 20% with LTC have a plan

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>ACTION</th>
<th>MEDICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHEN YOU ARE WELL - KNOW</td>
<td>LIFESTYLE TIPS</td>
<td>Reliever</td>
</tr>
<tr>
<td>• How much you can do each day</td>
<td>• Stop smoking and avoid smoky environments</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• How your breathing is at rest and during activity</td>
<td>• Have something to look forward to each day</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• What makes your breathing worse</td>
<td>• Exercise every day</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• What your appetite is like</td>
<td>• Plan ahead and allow enough time to do things</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• How well you sleep</td>
<td>• Eat a balanced diet</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• How much sputum you have, and its colour</td>
<td>• Drink plenty of fluids</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td></td>
<td>• Avoid things that make you worse</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td></td>
<td>• Never run out of medicines</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td></td>
<td>• Regular medication and wellbeing check at GP</td>
<td>0 puffs times a day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WORSENING SYMPTOMS</th>
<th>WHAT TO DO</th>
<th>MEDICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• More breathless or wheezy than usual</td>
<td>• If you have an infection (fever and/or yellow/green sputum), start antibiotics</td>
<td>Continue your usual medications. Increase or start the following medications:</td>
</tr>
<tr>
<td>• Change in amount and/or colour of sputum</td>
<td>• Increase your medications</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• Fever</td>
<td>• Reschedule your day to allow more time for rest</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• Need to use inhalers/nebulisers more than usual</td>
<td>• Use relaxation techniques</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• Reduced energy for daily activities</td>
<td>• Clear sputum with huff and cough techniques</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• Loss of appetite</td>
<td>• Eat small amounts regularly</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• Increasing tiredness and/or poor sleep</td>
<td>• Drink extra fluids</td>
<td>0 puffs times a day</td>
</tr>
<tr>
<td>• Cough – new or increased</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEVERE SYMPTOMS</th>
<th>Contact the doctor for an urgent review</th>
<th>Continue your usual medications. Start the following medications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>If not better in [ ] days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daytime tel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After hours tel:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMERGENCY</th>
<th>Dial 111 for an ambulance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Very short of breath at rest</td>
<td></td>
</tr>
<tr>
<td>• A feeling of agitation, fear, drowsiness or confusion</td>
<td></td>
</tr>
<tr>
<td>• Chest pains</td>
<td></td>
</tr>
<tr>
<td>• High fever</td>
<td></td>
</tr>
</tbody>
</table>
Pulmonary Rehabilitation works
....– if provided!
Pulm. Rehabilitation
Fitness
Strength
Endurance
Self-confidence
Coping
Medicines better used
Mood better, less isolated
Community is well. Education and support to self-modify lifestyle is available.

More people stay well

More people are seen and treated early

Less people need hospital care

Less needless deaths

Death with dignity

Care and support is available to meet all health needs in an holistic way.

Healthy community

Smoking Cessation

Smoking Cessation

Smoking Cessation

Smoking Cessation

Smoking Cessation

No needless pain, no needless death, more quality years
COPD Diagnosis: Systematic approach

- Assess severity in order to identify needs
  - Annual review in 1° care
  - Specialist services to support
  - Review after each significant exacerbation
- Reinforcement of smoking cessation advice
- Focus on wellness, HEHA, housing …
- Step-up management in response to increasing need
  - Pharmacological Rx, Pulm Rehabilitation
- Assessment of co-morbidities and complications
  - Psycho-social impact
  - Palliative care
2010

- 17 approved sleep providers
- 5 approved spirometry providers
- Mobile team in place
- Quality frameworks in place
- >1,000 spirometry and sleep tests
- 8 rehab programmes in community and follow-on exercise classes
- 130 patient assessments + practice education
Re-designing services: Challenges

• Vision - do we share this?
• Priorities - aligned? MoH, DHB, PHO, IPA, GP, SMO...
• No crisis – H1N1, EOI
• Engagement, Empowerment
  professionals, consumers
• Communication ? adequate
• Sustainable ? (who actually does the work?..)
• Waste - do we create new~ ? (reduplication, new silos, LTC)
• Where are we? No indicators/ KPI
• Focus on short-term gains: $$, political