



HUNTER NEW ENGLAND
NSW HEALTH

A Breath of Fresh Air: Working Together to Develop Integrated Pathways of Care for COPD

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HealthOne Raymond Terrace

- The design and construction of an integrated primary and community health care facility that will collocate:
 - A large General Practice (Raymond Terrace Family Practice)
 - Community Health Services (HNE Health)
 - Diagnostic Services & Visiting services
- Development of Integrated Models and Pathways of Care



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Background – Why Integrated Care?

- Strong national¹ & international² evidence that an integrated primary health care sector can:
 - Improve the health of the population (by adopting a “health” rather than “disease” orientation)
 - Reduce health inequalities (by improving access for disadvantaged and vulnerable groups)
 - Help to contain rising health care costs (by providing cost effective care, particularly in the management of chronic disease)

The Key Stakeholders...

- The Raymond Terrace Family Practice
- Department of Respiratory & Sleep Med (JHH)
- Cardio-Pulmonary Rehabilitation Unit (GNC)
- Community Health (GNC)
- HealthOne Raymond Terrace

AIM

*“To optimise early intervention,
diagnosis, treatment and
management for people with COPD
(in the Raymond Terrace Area)”*

COPD

- Chronic Obstructive Pulmonary Disease (COPD)
 - **Not** curable
 - **Is** largely preventable and treatable
- In Australia, COPD is³:
 - Estimated to affect just over 2 million, or 1 in 5 people over the age of 40
 - 1.2M experience COPD severe enough to impact their daily lives
 - The estimated financial cost is \$8.8 billion, p.a.
 - \$900m in direct healthcare expenditure



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Global Initiative for Chronic Obstructive Lung Disease



**GLOBAL STRATEGY FOR THE DIAGNOSIS,
MANAGEMENT, AND PREVENTION OF
CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

UPDATED 2009

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Identifying & Framing the Need

- Limited local access to respiratory care and pulmonary rehabilitation... ***a priority for the community***
- Access to specialist support; ability to manage care within scope of practice...***a priority for GPs***
- A leading cause of admission & bed-days.....limited capacity to meet the increasing need.. ***a priority for HNE Health***
- A desire to provide and receive timely and appropriate, best practice care....***a priority for ALL***

Defining The Opportunities

- Early identification of clients with risk factors/ COPD
- Ensuring accurate and timely diagnosis
- Improving access, attendance and completion of Pulmonary Rehabilitation
- Rapid access to specialist support
- Coordinated Care

Developing the Model

- A review of the evidence and the COPDX and the GOLD strategy
- Commitment to ensure "***the right care, to the right person, at the right time and in the right place***"
- How do these align....can we change practice, how do we change practice?

Integrated Model of Care for COPD

Smoking Cessation, health promotion & self care

Specialist Support

Pulmonary Rehabilitation

Coordinated Care

Supportive & Palliative Care

Primary Prevention	Secondary Prevention(Early Intervention)		Tertiary Prevention/ Chronic Disease Mx/ Continuing care			
Health Promotion	Risk Screening & Reduction	Accurate Diagnosis	Treatment & Management of Stable disease	Complex/Severe Disease	Unscheduled Care (Acute Episodes)	End of Life Care
<p>Priority/s:</p> <p>Health Promotion & Education.</p> <p>Targets:</p> <ul style="list-style-type: none"> • Smoking Prevention • Healthy living • Prevent exposure to environmental factors 	<p>Priority/s:</p> <p>Risk Screening, Risk prevention, risk reduction, and early intervention focusing on:</p> <ul style="list-style-type: none"> • Smoking Cessation • Exposure to Environmental factors <p>Risk screen of high risk (smokers, elderly) using Spirometry or FEV</p> <p>Refer high risk patients to GP</p>	<p>Priority/s:</p> <p>Full assessment of high risk patients in community and General Practice including:</p> <ul style="list-style-type: none"> • Spirometry • CXR • Ax Co-morbidities <p>Accurate performance and interpretation of Spirometry</p> <p>Stratification of disease severity: (mild/moderate/severe)</p> <p>Referral pathways to specialist support for diagnostic difficulty/confirmation.</p>	<p>Priority/s:</p> <p>Integrated treatment pathways</p> <p>COPDX guidelines to optimise treatment</p> <p>Specialist medication review (with education)</p> <p>Self management education and written individualised action plan.</p> <p>Multidisciplinary care planning</p> <p>Pulmonary rehabilitation</p> <p>Information, education and support for carers</p> <p>Anticipatory care</p> <p>Vaccination</p>	<p>Priority/s:</p> <p>Specialist services and clinics with MDT support (including physiotherapy, psychology, oxygen)</p> <p>Case management by appropriate case manager (generalist CM or Respiratory Nurse Specialist)</p> <p>In home support services</p> <p>Tele-health</p>	<p>Priority/s:</p> <p>Admission avoidance through intermediate care</p> <p>Hospital admission</p> <p>Support discharge to reduce LOS</p> <p>Pathways post admission/follow-up</p>	<p>Priority/s:</p> <p>? Palliative care framework</p> <p>Prognostic indicators for primary and secondary care</p> <p>Specialist support</p> <p>Referral pathways</p> <p>Treatment & Management</p>

Admission Avoidance

Education and Clinical Support

Information and Clinical Audit

Integrated Model of Care for COPD – Service Providers

Smoking Cessation, health promotion & self care

Specialist Support

Pulmonary Rehabilitation

Coordinated Care

Supportive & Palliative Care

Primary Prevention	Secondary Prevention(Early Intervention)		Tertiary Prevention/ Chronic Disease Mx/ Continuing care			
Health Promotion	Risk Screening & Reduction	Accurate Diagnosis	Treatment & Management of Stable disease	Complex/Severe Disease	Unscheduled Care (Acute Episodes)	End of Life Care
General Practitioners						
HNE Pop Health	HNE Services	Respiratory Specialists (Public/Private)				
		ADAPT				
	Pharmacy Project	Pharmacists				
NSW DOH		Pulmonary Rehabilitation			Pulmonary Rehab	
ALF		Allied Health Services (public/private)				
		Home Support Services				
		HealthOne Complex Care Coordinator (TBC)				
		Rapid Access Clinic				
		CAPAC				
		Hospital (unplanned)				
		Ambulance Services				
		Pal Care Team				

Admission Avoidance

Education and Clinical Support

Information and Clinical Audit

Implementing Change!

- Early identification of clients with risk factors/ COPD
 - ***GPs to utilise opportunistic screening tool***
- Ensuring accurate and timely diagnosis ...
 - ***Provision of spirometry training (with diagnostic support)***
 - ***Improved access to respiratory support (ADAPT clinic)***
 - ***Utilisation of diagnostic criteria and protocols***
- Improving access, attendance and completion of Pulmonary Rehabilitation
 - ***Direct GP referral to pulmonary rehab for suitable clients***
 - ***The local provision of pulmonary rehab***
- Rapid access to specialist support
 - ***Phone access to respiratory specialists***
 - ***Rapid Access Clinic***
- Coordinated Care
 - ***Integrated Care Pathways***

CHEST X-RAY (CXR)**Recommended X-rays:**

- A plain postero-anterior and
- A lateral chest x-ray.

Rationale:**To identify (and exclude) other diagnoses such as:**

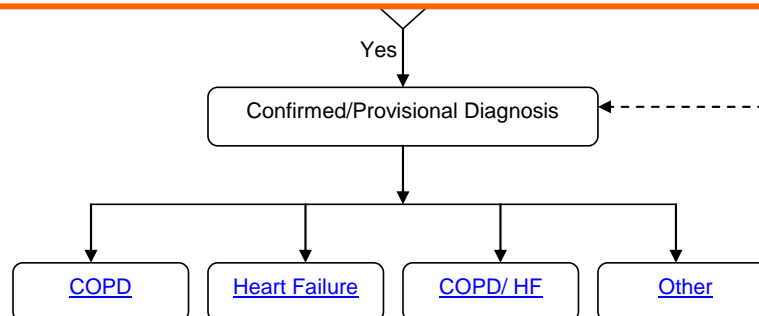
- Pneumonia
- Congestive cardiac failure (cardiomegaly, interstitial odema)
- Pleural effusions
- Pneumothroax
- Lung cancer
- Fibrotic lung disease.

N.B: Chest X-ray will not exclude a small carcinoma (<1cm); it is no possible to diagnose emphysema radiographically

Evaluation (what to look for):

- A chest X-ray is best used to exclude other or co-existant diagnoses
- It is not sensitive in the diagnosis of COPD and a normal CXR does not exclude COPD. X-ray changes are usually only evident in those with moderate to severe disease. These include; hyperinflation (flattened diaphragm on the lateral chest film), and an increase in the volume of the retrosternal air space; hyperlucency of the lungs and the reduction or absence of vasculature (rapid tapering).

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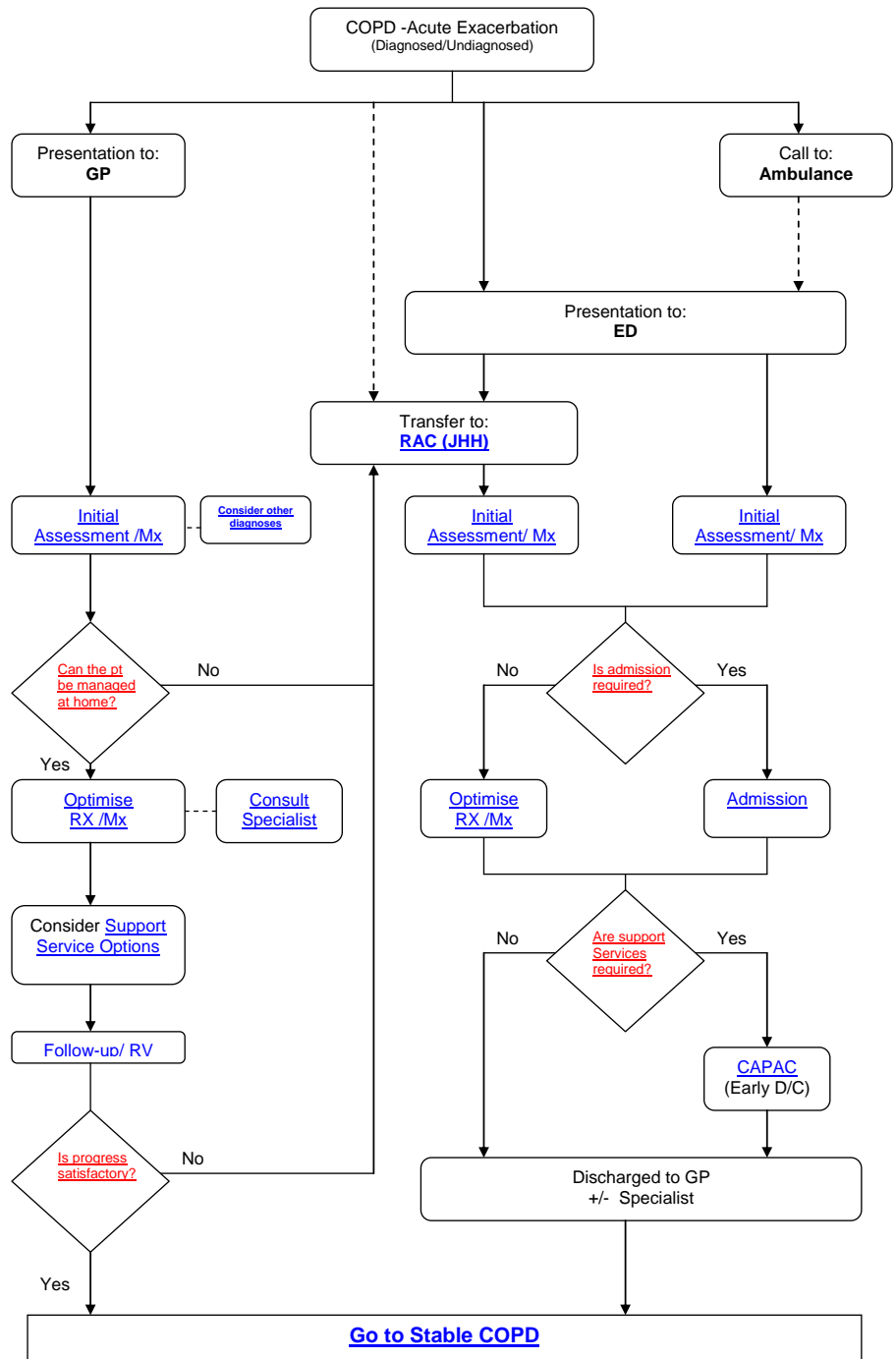
SPECIALIST REFERRAL

A referral to a respiratory specialist is indicated if:

- **Diagnosis is NOT certain and/or**
- **Disease severity is Moderate/Severe and/or**
- **Client has been hospitalised and/or**
- **Concerns or difficulties regarding optimising treatment/management are evident.**
- **Or for one of the following “Reasons” or “Purposes”**

Reason	Purpose
<i>Diagnostic uncertainty and exclusion of asthma</i>	Establish diagnosis (exclude other diagnoses) and Optimise treatment. Check degree of reversibility of airflow obstruction.
<i>Unusual symptoms such as haemoptysis</i>	Investigate cause including exclusion of malignancy
<i>Rapid decline in FEV₁</i>	Optimise management
<i>Suspected moderate or severe COPD</i>	Optimise management
<i>Onset of cor pulmonale</i>	Confirm diagnosis and optimise treatment
<i>Assessment of home oxygen therapy: ambulatory or long-term oxygen therapy</i>	Optimise management, measure blood gases and prescribe oxygen therapy
<i>Hospitalisation due to acute exacerbation</i>	Optimise management
<i>Bullous lung disease</i>	Confirm diagnosis and refer to medical or surgical units for bullectomy
<i>Assessment for long-term nebuliser therapy</i>	Optimise therapy and exclude inappropriate prescriptions
<i>Assessment for oral corticosteroid therapy</i>	Justify need for long-term treatment or supervise withdrawal
<i>COPD <40 years of age</i>	Establish diagnosis and exclude alpha1-antitrypsin deficiency
<i>Assessment for lung transplantation or lung volume reduction surgery</i>	Identify criteria for referral to transplant Centres
<i>Frequent chest infections</i>	Rule out co-existing bronchiectasis
<i>Dysfunctional breathing</i>	Establish diagnosis and refer for pharmacological and non-pharmacological management
FEV ₁ , forced expiratory volume in 1second; Table adapted from British Thoracic Society Statement	

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Lessons Learnt

- Building Partnerships takes time
- Understand the power of data
- Ask Why?
- Start with the small wins/Find common ground
- Always Aim for Best Practice
- Set realistic but tight timeframes
- Communicate, Communicate, Communicate

Where to from Here?

- Finalisation of pathways and algorithms in Chronic Disease Management Toolset (IT system)
- Finalisation of the pilot and evaluation
- Development and alignment of other Chronic Disease Pathways including:
 - Heart Failure
 - Diabetes
- Ongoing partnership development- Striving together towards integrated care!

References:

1. Tieman J, Mitchell G, Shelby-James T, et al. Integration, coordination and multidisciplinary approaches in primary care: a systematic investigation of the literature. Canberra: Australian Primary Health Care Research Institute, 2006.
2. Starfield B, Shi L, Mackinko J (2005) Contribution of primary care to health systems and health. *Milbank Quarterly*, vol.83, no.3, 457-502
3. *Access Economics. (2009) Economic Impact of COPD and Cost Effective Solutions, report for The Australian Lung Foundation, Canberra*
4. Global Initiative for Chronic Obstructive Lung Disease (GOLD), Global Strategy for the Diagnosis, Management and Prevention of COPD. 2006.
5. David K McKenzie, Michael Abramson, Alan J Crockett, Nicholas Glasgow, Sue Jenkins, Christine McDonald, Richard Wood-Baker, Peter A Frith on behalf of The Australian Lung Foundation. The COPD-X Plan: Australian and New Zealand Guidelines for the management of Chronic Obstructive Pulmonary Disease 2010.

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Raymond Terrace Family Practice

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