



NorthernHearts  
+LungsProject

## **Pam Shields**

**Respiratory Nurse Consultant  
Northern Hearts and Lungs**

**“No walls required in management  
of chronic disease”**



## Stream of Northern Alliance HARP CDM Program, Melbourne

- Collaboration between:
  - Darebin Community Health
  - Dianella Community Health
  - Plenty Valley Community Health
  - Northern Division of General Practice
  - Northern Health



- State Government funded through DHS
- Hospital Admission Risk Program (HARP)
- Annual budget of approximately \$600,000
- Primarily an outreach program for the management of chronic disease
- Service is managed from a community health centre, not a hospital



## **Aim of service**

To improve the quality of life for clients with Chronic Obstructive Pulmonary Disease and Chronic Heart Failure by providing an integrated approach to disease management in the community

To keep people with chronic diseases out of hospital through clinical management, education and support

## Entry criteria

- Patients with moderate to severe COPD and CHF at risk of presenting to hospital. Severity of disease is determined by diagnostic test and functional scale
- Live in the Cities of Darebin, Hume or Whittlesea. Local government areas serviced by Northern Health
- The client, or their carer, has the ability to be directed toward self-management of their chronic disease

## **Exclusion criteria**

- Unable to be directed toward self management
  - Nursing home
  - Cognitive impairment
- Lives out of area
- Involved in another chronic disease management HARP program

Clients with a diagnosis of **COPD or CHF** at medium-high risk of representation to hospital. Lives in City of Darebin, Whittlesea or Hume. Client/ carer can be directed toward self management of chronic disease.

Referrals accepted from: Care Coordinators at The Northern Hospital, medical staff, other health care providers and GP's.

**Nurse Consultant (Cardiac or Respiratory)**  
Outreach assessment and clinic attendance. Referral to one or all of following services or to external providers as required.

Communication with client's **GP**.  
Development of Care Plan utilising Chronic Disease Management Item Numbers.

**Physiotherapist**  
Outreach visits, community exercise program, maintenance rehabilitation exercise program, at Darebin, Plenty Valley or Dianella Community Health

**Cardiologist and Respiratory Consultant**  
Rapid Assessment Clinic held at The Northern Hospital & Panch Health Service, GP education sessions, nursing staff consultation.

**Outreach Community Nurse**  
Provides ongoing clinical m'ment, education & support. Based at Plenty Valley, Dianella and Darebin Community Health.

**Oxygen Therapy**  
Assessment of oxygen needs. Based at The Northern Hospital

**Smoking Cessation Service**  
Clinic and limited outreach based at The Northern Hospital. Providing education, support and nicotine replacement therapy.

**Speech Pathology**  
Outreach assessment and management of dysphagia.



## What walls!!

- Care provided in clients homes, community health services and hospitals for clinics only
- Client record held by client to facilitate communication between the client, their GP and program staff
- All clients have an action plan developed by medical consultants on what to do in the event of an exacerbation of their chronic disease
- Care plans developed in the client's home with input from the Nurse Consultant, medical Consultant and client and / or carer. GPs are invited to contribute
- Clients educated to self manage their chronic condition in partnership with their GP, carers and other health professionals



## **Clients progress through the service**

- All clients have an alert on hospital patient management system, identifying them as a participant of the service
- If clients present to ED or are admitted to hospital, automated email sent to inform NH&L staff
- If client is no longer being actively seen by program staff, and present to hospital, nursing staff contact client



## Program features

- Nurse led multidisciplinary team
- Single point of entry
- GP engagement through care planning, communication and education
- Client held record
- Use of interpreters, translated patient information
- Risk stratification tool for heart failure clients

## Visit schedule

- Clients seen by nurse consultant an average of 4 times.
- Expectations set up by nurse about visits, role and anticipated outcomes
- Care plan developed by nurse consultant, reviewed by community nurses 6 monthly
- Handed over to community nurse for ongoing clinical management, education and support until client is suspended



## **Suspension criteria**

- The client / carer can demonstrate the ability to follow action plan developed by medical staff
- The client is well supported

## **Discharge criteria**

- Natural attrition
- Client moves out of area or moves into nursing home
- Palliative care or other HARP program
- Completed care plan



## **GP engagement**

- GP remains clients primary care provider in the community
- Invited to participate in community care plan, utilising medicare item numbers
- Supervised clinical attachment at COPD and Heart Function Rapid Assessment clinics
- GP education sessions at NDGP
- Comprehensive communication with client's GP



## **Client held record**

- Each client receives a client held record
- Provides a means of communication between healthcare professionals. GPs encouraged to contribute
- Client is responsible for record and taking it to appointments
- Record contains care plan, action plan, initial assessment, exercise goals, education goals, progress notes and privacy information



## **Beaters and Breathers support group**

- Commenced April 2005 in response to client request
- Addresses the social isolation for people with COPD and CHF
- Allows NH&L staff to remain in contact with suspended clients
- First chronic disease group in the northern suburbs of Melbourne
- Clients have input into content of group



## ***No Drawbacks* - Smoking cessation clinic**

- Initiative of NH&L to support program clients who continue to smoke (35% in 2006)
- Smoking cessation is the number one initiative to reduce mortality and hospital admissions
- Model addresses addiction to nicotine
- Commenced as an outreach program
- Extended to more time efficient clinic at TNH



## **Culturally and linguistically diverse clients**

- High proportion of CALD clients
- Use of interpreters (first visit as a minimum)
- Action plans in Italian
- Program information brochure in 7 different languages
- Bilingual staff



## **Heart failure risk stratification tool**

- Tool developed by Dr Karen Lamb at the Northern Clinical Research Centre
- Determines the risk of an inpatient with a diagnosis of heart failure of representing to hospital
- If patient is deemed to be at risk, they are referred to the Heart Function Clinic

| HOSPITAL   | <b>Risk Management Tool - Chronic Heart Failure Readmission Risk Tool</b><br><br><b>(Trial Document)</b>   | <small>AFFIX PATIENT IDENTIFICATION LABEL HERE</small><br>U.R. NUMBER: _____<br>SURNAME: _____<br>GIVEN NAME: _____<br>DATE OF BIRTH: ____/____/____ SEX: ____ | RISK MANAGEMENT TOOL - CHRONIC HEART FAILURE READMISSION |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
|--|--|--|--|-----------------|-------|------------|--------------|---|---|-------------------------|--|--|-----------------------------------|---|--|-----------------------------------|---|--|-----------------|---|--|-------------------------|---|--|---|---|--|--------------------------------------|----|--|--|--|-------------------------|------------|--------------|------------------|-----------|---|--|-----------------------------|
|  | <p><b>Aim</b><br/>To identify the risk of readmission in those with chronic heart failure (CHF) and left ventricular failure (LVF)</p> <p><b>Implementation</b><br/>All patients admitted with CHF and LVF should have this tool completed. Each patient starts with a score of 1. If a characteristic is present score the number next to it. If not present score 0. Maximum score is 8. 0-3 is a low risk (&lt;50%), 4-5 is moderate risk (50%) and 6-8 is a high risk (&gt;50%).</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 60%;">CHARACTERISTICS</th> <th style="width: 15%;">VALUE</th> <th style="width: 25%;">RISK SCORE</th> </tr> </thead> <tbody> <tr> <td>All patients</td> <td>1</td> <td>1</td> </tr> <tr> <td><b>Has the patient:</b></td> <td></td> <td></td> </tr> <tr> <td>a. Documented past history of CHF</td> <td>2</td> <td></td> </tr> <tr> <td>b. Anaemia on admission (&lt;11g/dl)</td> <td>2</td> <td></td> </tr> <tr> <td>c. LOS &gt; 3 days</td> <td>1</td> <td></td> </tr> <tr> <td>d. Past history of COPD</td> <td>1</td> <td></td> </tr> <tr> <td>e. Heart rate &gt; 100bpm when admitted to emergency</td> <td>1</td> <td></td> </tr> <tr> <td>f. 1<sup>st</sup> admission for CHF</td> <td>-1</td> <td></td> </tr> <tr> <td colspan="2">Has the pt had a prior CHF admission in the last 12 months <b>YES/NO</b></td> <td><b>Total Risk Score</b></td> </tr> </tbody> </table> <p>Date of admission: ____/____/____</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">RISK LEVEL</th> <th style="width: 50%;">INTERVENTION</th> <th style="width: 30%;">Date &amp; Signature</th> </tr> </thead> <tbody> <tr> <td>Low (0-3)</td> <td> <ul style="list-style-type: none"> <li>♥ CHF education</li> <li>♥ Refer to RPC Program</li> <li>♥ Follow-up outpatient if required</li> <li>♥ Letter to GP</li> </ul> </td> <td></td> </tr> <tr> <td>Moderate (4-5) &amp; High (6-8)</td> <td> <ul style="list-style-type: none"> <li>♥ Inform medical team</li> <li>♥ CHF education</li> <li>♥ Refer to NHL Heart Function clinic</li> <li>♥ Refer to cardiology if required</li> <li>♥ Refer to RPC Program</li> <li>♥ Letter to GP</li> </ul> </td> <td></td> </tr> </tbody> </table> <p><small>NHL = Northern Hearts &amp; Lungs; RPC = Respecting Patient Choices.</small></p> <div style="border: 1px solid black; padding: 5px; font-size: small;">       For NHL, medical staff complete a referral form and address to 'heart function clinic' &amp; send to TNH outpatients or fax to PANCH health services – 9485 9010     </div> |  |  | CHARACTERISTICS | VALUE | RISK SCORE | All patients | 1 | 1 | <b>Has the patient:</b> |  |  | a. Documented past history of CHF | 2 |  | b. Anaemia on admission (<11g/dl) | 2 |  | c. LOS > 3 days | 1 |  | d. Past history of COPD | 1 |  | e. Heart rate > 100bpm when admitted to emergency | 1 |  | f. 1 <sup>st</sup> admission for CHF | -1 |  | Has the pt had a prior CHF admission in the last 12 months <b>YES/NO</b> |  | <b>Total Risk Score</b> | RISK LEVEL | INTERVENTION | Date & Signature | Low (0-3) | <ul style="list-style-type: none"> <li>♥ CHF education</li> <li>♥ Refer to RPC Program</li> <li>♥ Follow-up outpatient if required</li> <li>♥ Letter to GP</li> </ul> |  | Moderate (4-5) & High (6-8) |
| CHARACTERISTICS  | VALUE  | RISK SCORE   |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| All patients   | 1  | 1  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| <b>Has the patient:</b>  |  |  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
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| c. LOS > 3 days  | 1  |  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| d. Past history of COPD  | 1  |  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| e. Heart rate > 100bpm when admitted to emergency                        | 1  |  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| f. 1 <sup>st</sup> admission for CHF                                     | -1   |  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| Has the pt had a prior CHF admission in the last 12 months <b>YES/NO</b> |  | <b>Total Risk Score</b>  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| RISK LEVEL   | INTERVENTION   | Date & Signature   |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
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| Moderate (4-5) & High (6-8)  | <ul style="list-style-type: none"> <li>♥ Inform medical team</li> <li>♥ CHF education</li> <li>♥ Refer to NHL Heart Function clinic</li> <li>♥ Refer to cardiology if required</li> <li>♥ Refer to RPC Program</li> <li>♥ Letter to GP</li> </ul>  |  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| THE  | <small>Last updated July 05</small>  | <small>MR</small>  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |
| UPON DISCHARGE PLEASE PLACE FORM IN BOX PROVIDED                         |  |  |  |                 |       |            |              |   |   |                         |  |  |                                   |   |  |                                   |   |  |                 |   |  |                         |   |  |   |   |  |                                      |    |  |  |  |                         |            |              |                  |           |   |  |                             |



## Evaluation

- Quality of life utilising AQoL (Australian Quality of Life)
- Hospital anxiety and depression scale (HADS)
- 6 minute walk test
- Client focus groups
- Satisfaction surveys (GPs and clients)
- Activity data reported to DHS monthly



## What we have achieved

- Program commenced in October 2003 with first client being seen in February 2004
- Program has seen 769 clients
- 548 clients have home visits by nurse
- In 2006, there was a 34.8% decrease in hospital utilisation for clients with COPD or CHF compared with 2001/02



**Comprehensive service across  
a variety of health settings  
breaking down barriers  
between acute and primary  
health care providers**



## **Northern Hearts and Lungs Service Team**

Pam Shields – Respiratory Nurse Consultant

Helen Glouftsis – Cardiac Nurse Consultant

Vanessa Johns – Community Nurse

Marina Oliver- Community Nurse

Terri Guy – Community Nurse

Sam Naizi - Physiotherapist

Thy Tran - Physiotherapist

Carole Cox - Physiotherapist

Evelyn Lomas – Oxygen Therapist

Sarah Ball – Speech Pathologist

Quentin Forrest - Cardiologist

Shahnaz Haque – Respiratory Consultant

Robyn Bradley - Manager