

Cardiac Rehabilitation for Heart Failure Patients in East Kent

Jane Thackwray & Ellie Frampton
Principal Nurse Cardiology /
Clinical Specialist Physiotherapist



Nice Guidelines 2010

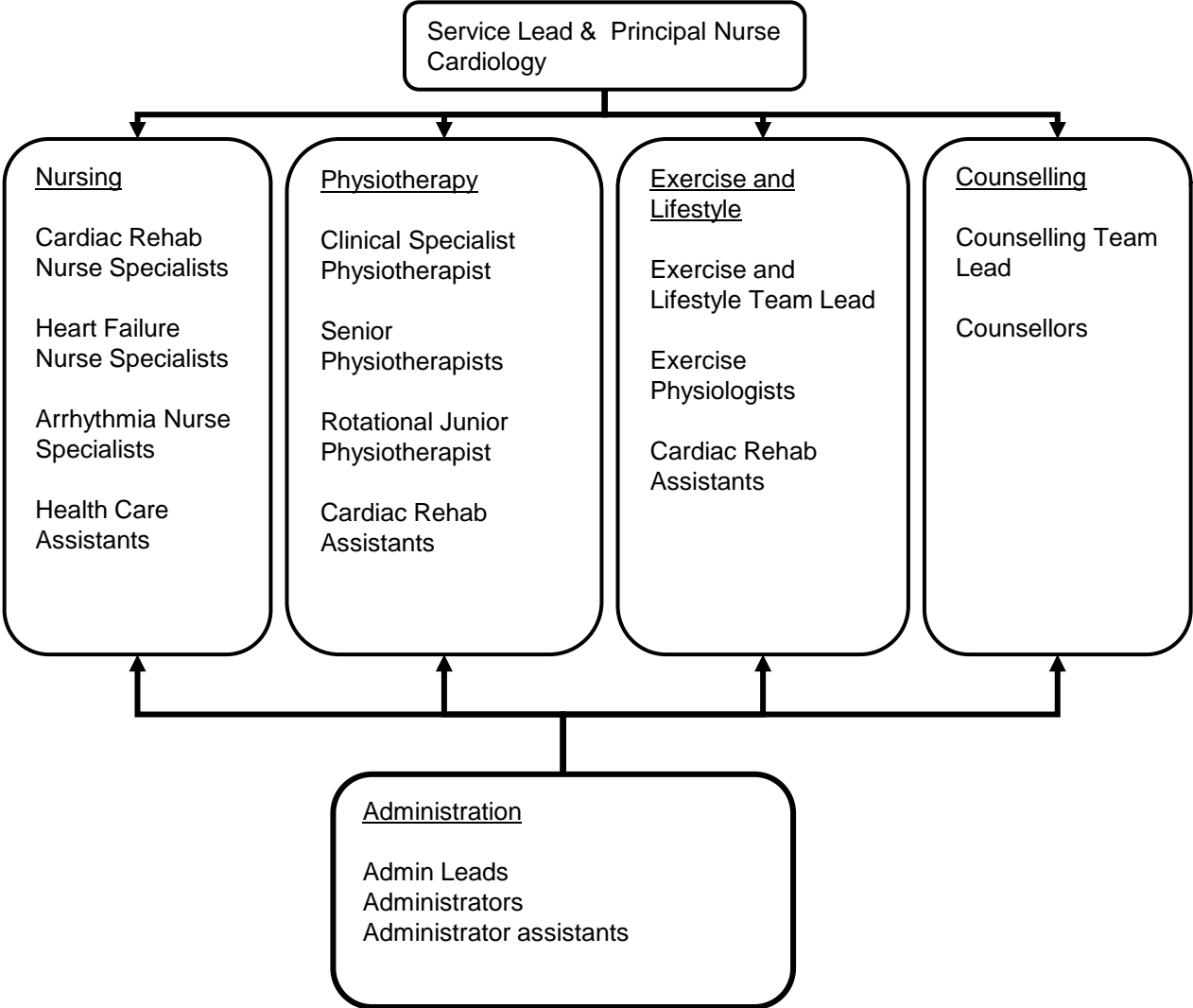
- Offer a supervised group exercise-based rehabilitation programme designed for patients with Heart Failure.
- Include a psychological and educational component in the programme.
- The programme may be incorporated within an existing cardiac rehabilitation programme

Other Drivers NSF CHD 2000, SIGN 2007, ESC 2008.....

Kent Community Cardiac Services

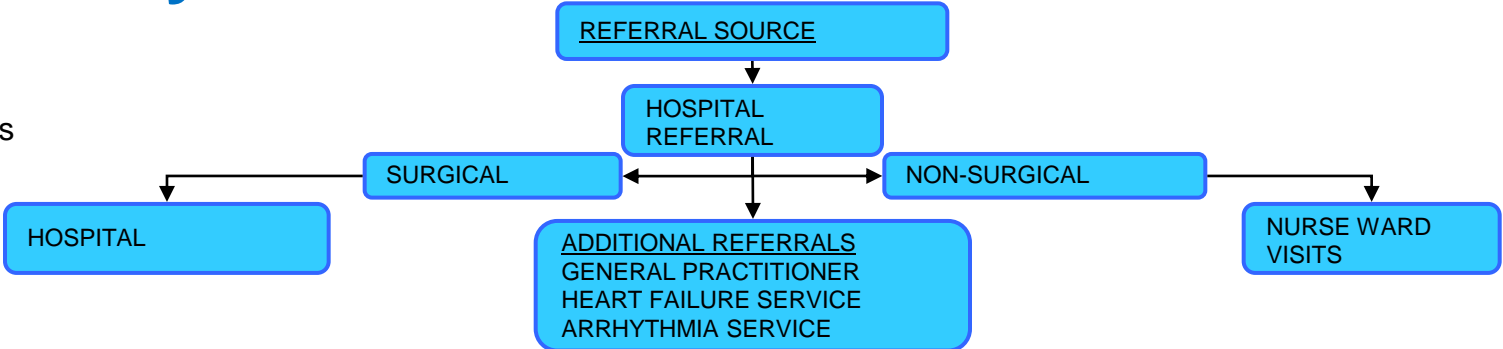
- Specialist nurses 19 WTE
- Cardiac nurses and support workers 4.8WTE
- Physios 5 WTE
- Physiologists 4.8 WTE
- Rehab assistants 7.6 WTE
- Counsellors 3.5 WTE
- Admin
- Volunteers

Team Structure

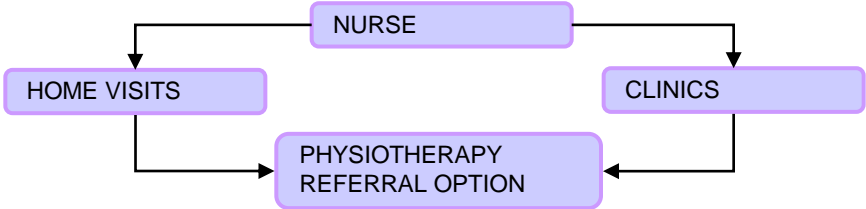


CR Pathway

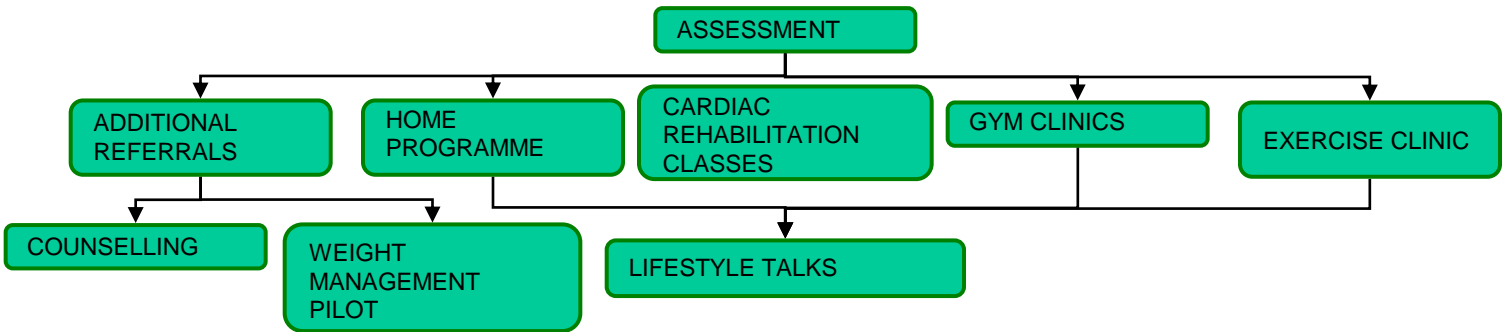
Phase 1
Duration 5 – 7 days



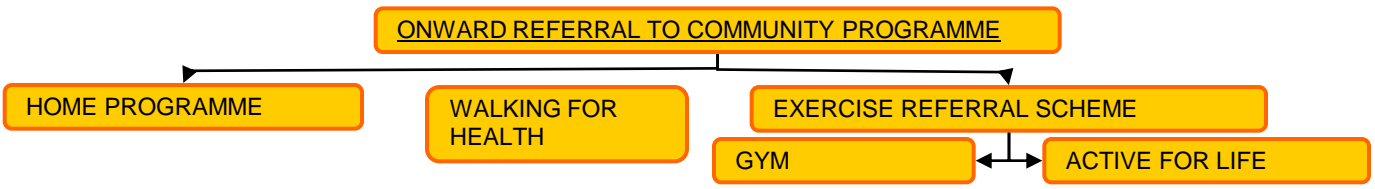
Phase 2
Duration 2 – 6 weeks



Phase 3
Duration: 8 – 12 weeks



Phase 4
Duration: Ongoing



History of Service

- Heart Failure Nurse Specialists 2005
- Commissioned to provide Cardiac Rehab from start
- Staff Increases 2008
- Service development

Barriers?

- None
- Capacity existed within established classes
- One service, one goal
- Clear criteria for inclusion/exclusion
- ‘Stabilised’ before referral
- Cardiologists engagement

Exclusion Criteria

- Pre-Exercise screening to assess clinical status, identify any contraindications.
- Patients should show no reported weight gain >2kg in 2 days
- Clinically stable for 1 month
- No significant obstructive valvular disease or exercise – induced arrhythmias
- No deterioration in exercise tolerance
- No ‘increase’ or new episodes of breathlessness on exertion
- Stable BM’s
- Clinical status: BP, HR, RR
- Risk Stratification

(ACPICR 2008)

Contraindications to Exercise

- Uncontrolled tachycardia > 100bpm
- B.P.> 180/100
- Fever or feeling unwell
- New or worsening chest pain
- Unstable or acute heart failure
- New or uncontrolled arrhythmias
- Uncontrolled diabetes

(ACPICR 2008)

Contraindications Continued...

- Unstable angina (pain at rest)
- Severe orthopaedic conditions that would prohibit exercise.
- Other metabolic conditions i.e. hypokalaemia or hyperkalaemia & hypovlaemia.
- 3rd degree AV block, without a pacemaker
- Orthostatic blood pressure drop of >20mmHg with symptoms.

Outcome measures

- 6 minute walk test
- Incremental shuttle walk test
- 1 min sit-stand test
- Functional capacity tests
- Tinetti / Berg
- Rate Perceived exertion (RPE) scale Borg/
Omni
- Breathlessness Scale

Staffing & Structure

- **Staff** = Exercise physiologist, Cardiac rehab assistants, Cardiac rehab nurse & Physiotherapist.
- Ratio for Heart failure patients 1:3
- 'A' Group = Seated, modified seated, standing circuit training, higher risk patients
- 'B' Groups = Modified, standing circuit training, gym programme
- Home Programme

Duration & Progression

- Classes 2 x Week
- Initially short, frequent periods of 5 – 10 mins of activity 3- 5 times per week, are more effective and better tolerated in de-conditioned patients over 1st 4 weeks
- Gradually increase duration & frequency of training to 15mins then 20-30 mins over 8-16 weeks.

(ACPICR 2008)

Summary

- Community only service
- Provide cardiac rehab to all patients who would benefit in either a supervised structured rehab class or home exercise programme
- Inclusion/ exclusion criteria are correct for our patient groups
- Essential to have correct skill mix and staffing levels
- Positive outcomes with significant improvements in both functionality and psychological

References

- Association of Chartered Physiotherapists in Cardiac Rehabilitation. (2008) *Standards for the exercise component of phase 3 cardiac rehabilitation.*
- National Institute for Clinical Effectiveness (NICE) 2010 *Management of chronic heart failure in adults in primary & secondary care.*
- Health Care Commission (July 2007) *Pushing the boundaries. Improving services with heart failure.*
- Department of Health (2003) *National service framework for coronary heart disease: Delivering better heart services.* Progress report.
- Department of Health (2000) *National service framework for coronary heart disease.* Chapter 6.
- Austin et al (2005) *Randomised controlled trial of cardiac rehabilitation in elderly patients with heart failure.* European journal of heart failure. Mar16;7(3): 411-7

References continued...

- Cowie et al (2003) *Managing Heart Failure in Primary Care: A Practical Guide*. Baldo medical publishing, Oxfordshire.
- *Scottish Intercollegiate Guidelines Network (2007) 'Management of chronic heart failure : A National Clinical Guideline'* Edinburgh: SIGN, Publication no 95.
- *Kenneth Dickstein (Chairperson), Panos E Vardas (Chairperson), Angelo Auricchio, Jean-Claude Daubert, Alain Cohen Solal, Gerasimos Filippatos, Cecilia Linde, John JV McMurray, Piotr Ponikowski, Philip A Poole-Wilson, Anna Stromberg, Dirk J Van Veldhuisen, Dan Atar, Arno W Hoes, Andre Keren, Alexandre Mebazaa, Markku Nieminen, Silvia G Priori, Richard Sutton, Karl Swederg, (2008) **Acute and Chronic Heart Failure** ESC Clinical Practice Guidelines*