Cardiac rehabilitation in country South Australia—then, now and next

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Introduction

The South Australia Statewide Cardiac Clinical Network has developed a model of care for cardiac rehabilitation in South Australia. The model of care is premised on the standardisation of cardiac rehabilitation services through the use of clinical pathways and the introduction of a telephone-based phase 2 cardiac rehabilitation service to address the existence of barriers to patient attendance at these programs.

In 2012, Country Health South Australia Local Health Network (CHSALHN) commissioned a 5-month project to map existing country cardiac rehabilitation services and perform a gap analysis against the model of care. The aim of the project was to address the implementation of the model of care into country South Australia. The objective was to use this process to strengthen existing cardiac rehabilitation programs and improve access to secondary prevention of cardiovascular disease for all residents of country South Australia.

The resultant project report included 27 broad recommendations, 39 achievement strategies and 172 individual actions which, once implemented, would ensure the provision of evidence-based standardised cardiac rehabilitation program for residents of country South Australia.

In November 2011, the South Australian Statewide Cardiology Clinical Network in partnership with the Heart Foundation released, “Cardiac Rehabilitation: A Model of Care for South Australia”. The model of care was the result of a recommendation that “every patient who has experienced an episode of Acute Coronary Syndrome or revascularisation should receive a standardised education resource and have access to an effective rehabilitation service tailored to the individual on discharge”. The model describes comprehensive multi-disciplinary cardiac rehabilitation across three phases of care. The model recognises that some programs may need to provide variations to the comprehensive model due to local limitations and available resources. However, the “core elements” underpinning the model are essential for all services to adopt. This will provide the framework to assist in the provision of quality, evidence based services to patients irrespective of the mode of delivery or their location.¹,²,³

According to a recent data review undertaken by SA Health, only 10-20% of eligible residents of country South Australians are currently accessing a cardiac rehabilitation program after experiencing an acute cardiac event. Barriers to access to cardiac rehabilitation are well documented and the provision of a telephone-based cardiac rehabilitation service is an evidence-based method of addressing many of these barriers.

The overall objective of service mapping country-based programs was to identify gaps in current service provision and make evidence-based recommendations designed to bridge the gaps. The requirement for a clear and current understanding of existing services was essential to ensure recommendations reflected the most appropriate corrective actions. The survey area included all of South Australia outside the geographical locale of metropolitan Adelaide.

Project methodology

Service mapping was undertaken with the use of a comprehensive survey of CHSALHN facilities and selected private general practice facilities in country South Australia. The survey was developed using a web-based survey tool. An invitation to participate in the online survey was extended to the survey population via e-mail. Actual sampling size within Country Health SA services is indeterminate because those invited to participate were encouraged to forward the invitation to other health care professionals as they deemed appropriate. There were a minimum of 82 invitations to participate in the survey distributed. There were 5 private general practice nurses invited to participate in the survey. The survey
was made available via internet for a period of 22 days with a reminder to invited participants of the due date 7 days prior to closing the survey.

The survey questionnaire was designed to provide information about existing cardiac rehabilitation services in country South Australia. Responses were secured from 61 of 63 acute care facilities in country South Australia. 4 acute care facilities provide outpatient cardiac rehabilitation programs. The survey received 17 responses from community based health services. 9 of these services provide phase 2 community-based cardiac rehabilitation programs. 4 general practices currently provide outpatient cardiac rehabilitation.

The survey questionnaire was designed to seek information about existing cardiac rehabilitation services in country South Australia in distinct categories.

- **Service location**—The geographical spread of cardiac rehabilitation services is considered a crucial factor for consideration when measuring the ability of communities in country South Australia to provide a cardiac rehabilitation service according to the provisions of the Model of Care. The provision of respondent identification also allowed multiple responses from one site to be considered collectively. Appendix 1 shows a map of the geographical location of existing cardiac rehabilitation programs in country South Australia.

- **Low Risk Acute Coronary Syndrome (ACS)**—The Model of Care stipulates the implementation of specific levels of cardiac education and rehabilitation according to the level of cardiac event experienced by a patient and the level of service provided by the facility to which the patient presents. The survey sought to identify all health care facilities in country South Australia who are capable of and provide management of patients presenting with specific symptoms and criteria that identifies them as low risk acute coronary syndrome. 63 facilities with acute care management capability provide clinical management of patients presenting to the service with chest pain.

- **Short Stay Acute Coronary Syndrome**—The Model of Care stipulates provision of specific elements of education and cardiac rehabilitation to patients admitted to hospital who meet the specific criteria of short stay acute coronary syndrome. 37 acute care facilities in country SA provide inpatient management for patients with a diagnosis of acute coronary syndrome. This information was used to undertake a gap analysis to identify the workforce, training and development and implementation procedures required to enable the model of care requirements to be met within these facilities.

- **Cardiac Rehabilitation Program Coordination**—The Model of Care stipulates provision of standardised cardiac rehabilitation across South Australia. The survey sought to identify the existence of every service in country South Australia whose purpose is to provide education and rehabilitation to patients following a cardiac event. There are currently 17 cardiac rehabilitation programs in country South Australia, 13 within country health SA facilities and 4 within general practice. For those identified, extension survey questions sought to categorise the services according to the following criteria:
  - role and qualifications of the service coordinator
  - level of multi-disciplinary involvement
  - program orientation
  - core elements of program
  - referral methods and patient population
  - program funding
  - data collection
  - evaluation and reporting of program outcomes.
In addition to the identification of components of each existing cardiac rehabilitation program, the survey questions were designed to measure the level of current accountability and overall clinical and corporate governance of each specific service.

Results and recommendations

The survey enabled a gap analysis to be undertaken, comparing existing cardiac rehabilitation services in country South Australia with the requirements set out in the document, “Cardiac Rehabilitation in South Australia: a Model of Care”. The following recommendations reflect the current deficits identified during the gap analysis process. Recognition and adoption of the recommendations will ensure country South Australian services are implemented and operate according to the Model of Care.

Standardisation of cardiac rehabilitation services

The state wide Cardiology Clinical Network sought to strengthen and standardise cardiac rehabilitation services across South Australia with the development of a model of care. Provision of standardised and consistent education material is one core aim of the model (South Australian Cardiac Rehabilitation: A Model of Care, 2011).1,2,3

Recommendation 1—Duration of cardiac rehabilitation programs provided in country South Australia will reflect the guidelines of the model of care. These guidelines being; assessment within two weeks of referral, commencement of phase 2 within 1 month of referral, completion of phase 2 within 3 months of referral and completion of phase 3 within 12 months of referral.

Recommendation 2—All cardiac rehabilitation programs in country South Australia will incorporate standard core elements as prescribed in the model of care. This includes provision of low and moderate intensity physical activity.

Recommendation 3—All cardiac rehabilitation programs in country South Australia will utilise educational resources from the Heart Foundation and Country Health SA Local Health Network.

Recommendation 4—Cardiac rehabilitation is marketed and promoted in a consistent manner across country South Australia.

Recommendation 5—Standardised client inclusion and exclusion criteria are agreed for use by all cardiac rehabilitation programs in country South Australia.

Recommendation 6—Standardised consent processes are agreed for use by all cardiac rehabilitation programs in country South Australia.

Recommendation 7—Cardiac rehabilitation program material and delivery methods will be adapted where required to provide a culturally appropriate service. There needs to be an agreement on whether the adapted material is prescribed or adapted at a local level to allow maximum flexibility of services. This could be achieved using Heart Foundation resources currently under development, giving consideration to the requirement for additional material resource funding.

Recommendation 8—Cardiac rehabilitation program material and delivery methods will be adapted where required to meet the dynamics of specific groups. There needs to be an agreement on whether the adapted material is prescribed or adapted at a local level to allow maximum flexibility of services.

Material and human resources

The “South Australian Cardiac Rehabilitation: A Model of Care”, 2011, states, “It is recognised that some sites may need to provide variations to the comprehensive model due to local limitations or requirements and available resources, particularly workforce. However, the “core elements” underpinning the Model are essential for all services to adopt. This will provide the framework to assist
in the provision of quality evidence based service to patients irrespective of the mode of delivery or their location.\textsuperscript{1,2,3}

**Recommendation 9**—All country South Australia health care facilities that provide management of patients presenting with chest pain will have access to and utilise the three standardised Heart Foundation education resources; “My Heart My Life”, “Managing My Heart Health” and “Warning Signs”.

**Recommendation 10**—All country South Australia health care facilities that provide inpatient management of patients admitted with Acute Coronary Syndrome will have access to and utilise the three standardised Heart Foundation education resources; “My Heart My Life”, “Managing My Heart Health” and “Warning Signs”.

**Recommendation 11**—Consideration is given to the need for clinical pharmacy and allied health involvement in the provision of in-hospital education of patients admitted in either the short or long stay pathway for the management of Acute Coronary Syndrome in a facility in country South Australia. A policy statement will be documented and promulgated according to the agreement reached. Consideration will be given with respect to any subsequent impact upon service provision.

**Recommendation 12**—Heart Health Rehabilitation Coordinators will be allocated standardised hours of work which will be calculated using an agreed formula which considers number of referrals annually, types of programs available, level of hospital in-reach services required, level of allied health involvement and any other agreed element.

**Recommendation 13**—All phase 2 community based cardiac rehabilitation programs in country South Australia will have a multi-disciplinary contribution to the provision of core elements of the education component.

**Policy and procedure**
The model of care seeks to implement new systematic procedures and pathways to support provision of quality cardiac rehabilitation programs. New procedures will promote the standardisation of systems and processes associated with provision of cardiac rehabilitation in country South Australia.

**Recommendation 14**—A documented contingency plan is adopted for use by health care facilities that are ill-equipped to provide inpatient management of patients with Acute Coronary Syndrome, but due to operational issues relating to transport or the receiving health service, are unable to transfer such patients in a timely manner.

**Training and development**
The “South Australian Cardiac Rehabilitation: A Model of Care”, 2011, states, “The model includes fundamental changes to responsibilities of staff members, new systematic procedures/pathways and an overarching cultural change to the approach of cardiac rehabilitation. As a result commitment needs to be made to education and training to support the implementation of the new model of care”, and, “Education and training regarding the new model and associated workflow changes for all staff, forms an essential underpinning component.\textsuperscript{1,2,3}

**Recommendation 15**—All nurses in country South Australia who are required to manage cardiac patients will be provided with education and a subsequent competency assessment to ensure the necessary skills to provide standardised education and phase 1 cardiac rehabilitation in the acute care setting. This could be achieved with the provision of a web-based electronic web education and competency assessment module.

**Recommendation 16**—Implement a cardiac rehabilitation steering committee tasked with supporting the ongoing provision of cardiac rehabilitation services in country SA. This group will have representation from nursing, medicine, pharmacy and allied health. This group will support a network
of country based cardiac rehabilitation providers and their ability to achieve collection of performance indicators to measure clinical outcomes and program effectiveness.

**Referral processes**

**Recommendation 17**—Consider centralised maintenance of current cardiac rehabilitation programs in country South Australia with monthly confirmation of accuracy and currency of information.

**Recommendation 18**—All cardiac rehabilitation programs providing 1:1 education (whether it is face to face or via telephone) will identify a referral pathway to fulfil individual client needs for specific risk factor management. This will utilise existing primary health based programs promoting the primary and secondary prevention of disease.

**Recommendation 19**—Existing cardiac rehabilitation services should ensure a system is in place that enables consumers (both referrers and clients) to make contact regarding the service within normal business hours. This includes during leaves of absence of the cardiac rehabilitation coordinator. It is anticipated this will be achieved with the use of additional administrative support and collaboration with other onsite service providers (both cardiac rehabilitation and non-cardiac rehabilitation). There will be a system to ensure feedback is provided to referrers regarding receipt of referral and result of referral. Referrals received will be managed in a standardised manner.

**Clinical governance**

The model of care recommends a standard clinical governance operation system be developed and implemented to ensure consistent, quality cardiac rehabilitation services across South Australia. The following recommendations relate to a small number of clinical governance components and suggest a more in depth assessment of existing structures in country South Australia be undertaken.

**Recommendation 20**—Further investigate existing clinical governance structures for the provision of cardiac rehabilitation in country South Australia.

**Recommendation 21**—Further investigate funding allocation to cardiac rehabilitation programs with regard to location and need for services and make recommendations as appropriate.

**Recommendation 22**—All cardiac rehabilitation providers in country South Australia will have the title of their role amended to “Heart Health Rehabilitation Coordinator”. Where the coordinator role is a component of a larger portfolio, the title “Heart Health Rehabilitation Coordinator” will be used as a sub-heading in all correspondence to ensure clear identification of the role. For example, if a cardiac rehabilitation coordinator currently holds the title of “Better Care in the Community Coordinator” their title would be; Better Care in the Community Coordinator (Inc. Heart Health Rehabilitation Coordinator)

**Recommendation 23**—Standardise data collection and data management processes. This activity has been commenced by the Cardiology Clinical Network.

**Recommendation 24**—Implement use of key performance indicators as designated by the Cardiology Clinical Network. The reporting of key performance indicators will be reported to and reviewed by the country cardiac rehabilitation steering committee.

**Recommendation 25**—Develop standardised program reporting template and implement regular program reporting program.
Progress

Progress toward implementation of the recommendations has been facilitated with an undertaking by CHSALHN to fund further project hours to lead the work required to achieve the outcomes. Achievements to date include:

- development and consultation of proposed core elements for inclusion in phase 2 cardiac rehabilitation programs
- development and consultation of proposed standardised cardiac rehabilitation program format
- endorsement of terms of reference for a steering committee tasked with assisting the provision of clinical governance to country cardiac rehabilitation programs
- the development of a minimum dataset and data management and reporting tool for cardiac rehabilitation is complete. Implementation of data management processes commenced in January 2013. Standardised reporting across all South Australian Local Health Networks is in development with the inaugural 6 month reporting period finishing in June 2013
- key performance indicators have been developed, consulted and prepared for endorsement. Key performance indicators reflect standardised minimum dataset
- telephone cardiac rehabilitation.

Country Health SA LHN has been engaged by Country South Medicare Local to develop and implement extended cardiac rehabilitation services in southern country South Australia regions. To date, project activities have achieved the following:

- commencement of a centralised referral service for all cardiac rehabilitation referrals from both metropolitan and country referrers
- commencement of a telephone based phase 2 cardiac rehabilitation program available for patients managed in the short stay ACS pathway in hospital.

Other project activities currently in progress with planned implementation by June 2013 are:

- development and implementation of an electronic booking and referral tracking system
- development and implementation of a web-based self-management and cardiovascular risk factor modification tool for people with, or at high risk of developing, heart disease.

Conclusion

Country South Australia continues to demonstrate its strong commitment to ensuring its population has access to evidence-based secondary cardiovascular disease prevention programs and support. With the adoption of innovative tele-health strategies, residents of country South Australia are enjoying greater equity of access to heart health rehabilitation. Continued monitoring of health outcomes in this population will demonstrate the effectiveness of the implementation of these strategies in reducing morbidity and mortality relating to second and subsequent cardiac events.
References


Appendix 1  Map showing geographical location of existing cardiac rehabilitation services in country South Australia