Measuring outcomes in the Department of Health Commissioning Pack for Cardiac Rehabilitation

Final evaluation report

June 2012

A collaborative project between NHS Improvement and the National Audit of Cardiac Rehabilitation (NACR)

Contents

Executive summary

This report summarises and sets out the main purpose of the collaborative project between the National Audit for Cardiac Rehabilitation (NACR) and NHS Improvement to test the feasibility of aligning national audit data collection with key commissioning data requirements as set out in the Department of Health Cardiac Rehabilitation Commissioning Pack (DH CR Commissioning Pack) 2010.

A key aim of the project was to identify how audit data collection could be adapted to more effectively explore the key outcomes and indicators specified in the DH CR Commissioning Pack, with the objective of producing a user-friendly report that could be generated by the NACR database. This report could then be used by commissioners and providers of services to clearly and simply present progress towards achieving the outcomes recommended in the pack.

Project scope

Collection of the key commissioning data requirements for the DH CR Commissioning Pack necessitated new and adapted fields being added to the NACR database and made visible only to the pilot sites involved in testing. The Health and Social Care Information Centre (HSCIC) and NACR provided expertise in facilitating this aspect of the pilot.

Seven CR service provider teams took part in the pilot, testing the methods of collection and reporting of the revised expanded dataset. Peer support through arranged meetings and regular contact with NHS Improvement and the NACR team ensured that project teams were kept on track, issues and challenges discussed and solutions agreed. Guidance was developed to help CR teams understand and successfully report their data within the new/adapted fields according to DH CR Commissioning Pack definitions. Teams collected these data and uploaded them to the national database. Reports on data uploads were provided by the NACR analyst and presented regularly to the steering group. Six CR provider service teams contributed to the final data upload.

Outcomes

One of the key outcome requirements in the DH CR Commissioning Pack was adapted slightly to reflect ‘the number of patient satisfaction questionnaires issued and collected’, rather than ‘percentage of patients satisfied’ as no validated, widely accepted measure of patient satisfaction or experience in CR was identified for use during the pilot.

The pilot sites found that a high degree of collaboration was required between commissioners and providers in order to agree and gather all the information needed to complete the report. Some information was automatically generated from fields in the NACR database, whilst other fields needed manual completion with information being derived from other sources (with the mechanism for collection being agreed locally).

Conclusions

The pilot project showed that it has been possible to amend the existing NACR database to capture the key outcome requirements (with one adaptation) as set out in the DH CR Commissioning Pack. It has also demonstrated that a report can be generated by the database which can be used to present these outcomes with the proviso that collection of the data is a shared commissioner-provider responsibility. However more work needs to be done by commissioners, providers and central audit teams to offer more effective guidance for users on developing robust mechanisms for obtaining key data on 'in-scope' patients and reductions in readmissions in addition to measures of patient satisfaction/experience.

Once the guidance, mechanisms for collection of data and frequency of reporting have been agreed, the subsequent report (as developed through this pilot) could be used to aid the monitoring, evaluation and improvement of CR services from a commissioning perspective.

The NACR has agreed to adopt most of the new data fields within the audit from 2012 and also to embed the report template developed during this pilot for presenting key outcomes for commissioners as an option for CR programmes.

Acknowledgements

This pilot project has been a collaborative endeavor between NHS Improvement, the NACR and the seven CR programmes. Generous thanks are extended to everyone who gave their time and effort to participate in or contribute to the pilot and the evaluation.

1. Introduction

1.1 Project aim

To enable the production of a timely report that can be utilised by the commissioners of cardiac rehabilitation (CR) services to determine whether the four high level outcomes of the Department of Health (2010) Commissioning Pack for Cardiac Rehabilitation (DH CR Commissioning Pack) have been achieved and to manage successful delivery of the outcomes accordingly.

1.2 Project objectives

To explore, test and evaluate the feasibility of modifying the existing National Audit of Cardiac Rehabilitation (NACR) dataset and database to capture the core information requirements specified in the DH CR Commissioning Pack and enable the production of a commissioner-focused report without compromising the integrity of the existing national audit.

Initially this involved NHS Improvement working alongside the NACR team at York and key staff from the Health and Social Care Information Centre (HSCIC- formerly the NHS Information Centre) to:

- compare and contrast existing fields in the NACR minimum dataset (MDS)/ database with the core (and other) information requirements in order to ensure that progress towards achieving the key service outcomes in the commissioning pack could be measured;
- adding a number of additional data fields to the national audit and modifying some existing data items, where required, to capture the core (and other) information items specified in the pack;
- undertaking the necessary redesign/ redevelopment work of the database to capture the new/ modified data items (Health and Social Care Information Centre); and
- recruiting a small number of sites (in the first instance drawn from those already participating in the national CR project run by NHS Improvement) to pilot collection of the revised/ expanded dataset during 2011/12 and to contribute to the development of the commissioner-focused report.

1.3 Project scope and exclusions

The primary project output was the production of a new report for commissioners of CR services, generated from the national audit database, to enable measurement of progress against the key service outcomes in the commissioning pack and in doing so to enable commissioners to monitor provider performance and manage successful delivery**.**

The key deliverables for this project included:

- the development of an 'extraset' (new and/ or modified data fields or items) as an adjunct to the existing national audit MDS/ database to align it with the core information requirements of the DH CR Commissioning Pack to enable progress against the four key service outcomes specified in the pack to be measured;
- the production of a report generated from the audit database to enable commissioners to manage successful delivery of the key service outcomes; and
- the pilot was restricted to a small number of sites required to meet selection criteria agreed by the project team (NHS Improvement and NACR).

The minimum pilot site requirements included:

- active participation in the NHS Improvement national cardiac rehabilitation project 2010/11- to ensure appropriate accountability and support arrangements were already in place; and
- active submission of data to NACR either via Lotus Notes or via the web-based application.

Sites importing data into the national audit database via a third party application were made aware of the requirement to enter data into the new/ revised fields manually, i.e. outside the existing import agent.

1.4 Project team

NACR:
Professor Bob Lewin: NACR Project Lead
Corinna Petre: NACR Project Manager
Nerina Onion: Training and Information Officer
Veronica Dale: Research Fellow in Statistics/Epidemiology

NHS Improvement:
Professor Patrick Doherty: National Clinical Lead for Cardiac Rehabilitation
Mel Varvel: National Improvement Lead
Sarah Armstrong-Klein: National Improvement Lead
Linda Binder: National Improvement Lead
Julie Harries: Director, NHS Improvement-Heart

2. Background and rationale

In October 2010 The Strategic Commissioning Development Unit (SCDU) at the Department of Health published the first in a series of tools to help commissioners improve the quality of services for patients through providing a set of clearly defined outcomes to help drive efficiency by reducing unwarranted variation in service delivery.

The DH CR Commissioning Pack contains a set of tailored guidance, templates, tools and information to assist commissioners in commissioning healthcare services from existing providers, or for use in new procurements. Central to the pack is a template service specification which details a best practice, evidence-based care pathway for CR to help commissioners and providers of CR services to define minimum standards and to use them to benchmark and improve local services.

In order to ensure a high quality service for patients, the service specification focuses on a number of key deliverables needed to achieve high-level outcomes for CR services, together with a set of performance indicators and measures. This provides commissioners with the information that can be used as a lever to manage the successful delivery of outcomes.

Outcomes for the cardiac rehabilitation service (see Section E of the DH CR Commissioning Pack Service Specification) are:

- there will be an increase in the number of patients offered cardiac rehabilitation;
- there will be an increase in the number of patients completing cardiac rehabilitation;
- as a result of cardiac rehabilitation there will be a reduction in patient re-admissions for another cardiac event in the 12 months after completing cardiac rehabilitation; and
- more patients will be satisfied with the service they receive for cardiac rehabilitation.

In order to enable commissioners to monitor the quality and performance of cardiac rehabilitation services and to take remedial action if performance levels are not met, Annex 3 of the service specification sets out a minimum data set in the form of ‘mandatory’, recommended and optional data items which, once agreed with the provider, should be inserted into the relevant section of the NHS Standard Contract. However, the pack does not provide commissioners with a readymade tool or mechanism to capture the relevant data items.

Funded by the British Heart Foundation (BHF), the National Audit of Cardiac Rehabilitation is the only national source of information on CR services across the country and aims to establish the extent of accessibility and uptake of CR services and quantify clinical and patient outcomes at local, regional and national levels.

The NACR has developed a comprehensive minimum data set which consists of a number of data fields collected via a set of patient questionnaires. The MDS captures a wide range of information on clinical and other expected outcomes of CR as well as patient demographics and process data. The dataset is contained within a national (electronic) database linked to the Health and Social Care Information Centre (previously the NHS Information Centre). In addition to the MDS, the electronic database includes a number of other fields and functions that aim to support the management and delivery of patient care.

Patient-level data is currently collected via the administration of patient questionnaires at the beginning and end of the CR programme and, where local resources allow, 12 months after start of the rehabilitation programme. Information from these questionnaires is entered directly into the database either manually using Lotus Notes or via a web-based application, or indirectly by importing data into the system from other third party applications or bespoke local databases.

Anonymised data is passed from the HSCIC to the NACR team at the University of York to assist with the compilation of an annual report. CR programmes can also view and download data for local analysis, as well as requesting bespoke reports from NACR.

Participation in the national audit is voluntary and not all services use the electronic database. However, an annual postal survey to collect information for those programmes that are not yet linked up to the electronic database has achieved a high annual return rate (99% in 2011).

Although the NACR is comprehensive and well-subscribed (about 70% of CR programmes in the UK submit data), currently the minimum dataset does not include all the core information requirements as specified in the DH CR Commissioning Pack. In some instances where the same information is included in both the national audit and the DH CR Commissioning Pack, the language and operational definitions employed by the audit differ from the descriptions in the pack.

NHS Improvement agreed to provide funding to the NACR to run a small pilot project to explore the feasibility of modifying the NACR database to capture the necessary information from the DH CR Commissioning Pack.

3. Methods

An initial planning meeting to discuss and agree the pilot project specification took place in York on 16/17 December 2010.

The steering group for the project comprised representatives from NACR, NHS Improvement and the HSCIC (on an opt-in basis). The steering group met on a number of occasions between January and March 2011 to develop and agree the initial project proposal and then on a quarterly basis (face to face or via conference calls) to review project progress. Quarterly review meetings took place from April 2011 to March 2012.

A smaller project team (see 1.4) was responsible for the day-to-day running of the pilot project.

Following an initial call for volunteers in January 2011, a small number of sites (initially seven) were selected to join the pilot project and invited to a launch meeting in London on 18 May 2011.

The project was implemented through regular meetings and conference calls between NHS Improvement, NACR and pilot project teams. The pilot project team included clinical and commissioner representatives in addition to personnel involved in the administration of CR programmes, data input and analysis.

Informal meetings conducted via individual telephone calls, conference calls and face to face meetings, plus individual and group email correspondence occurred throughout the project.

The project team agreed the necessary changes to the database (modifications to existing fields and insertion of some new fields) which were then carried out by the HSCIC.

The new and modified fields were made available to sites participating in the pilot. These changes were agreed by the pilot site teams and led to the production of a guidance document for participating sites to support data collection (see Appendix 1). The pilot sites tested new fields by entering data for patients during a defined period. These data were then summarized and presented in table format by site for review/ discussion.

The pilot project was evaluated by analyzing the quantitative data collected by the sites via the NACR database and by conducting interviews with participating project teams to obtain qualitative data on the process. The interviews focused on how easy or difficult sites found it to collect the data and what challenges they faced in meeting the requirements of the pilot project.

3.1 Data collection

The project team agreed the required fields and NACR worked with the HSCIC to embed the new fields into the data base to be used by service providers during the pilot project. Pilot sites were asked to enter data for these fields (as with the rest of the NACR database) for patients from July 2011 to the end of the pilot in March. Data collection and analysis focused on patients who started CR in quarter 2 (July to September 2011 inclusive). The NACR team arranged data upload via the HSCIC and then compiled a summary report on data completeness at each three month period throughout the pilot period. In essence each three month report was based on patients who started during the three month period and completed within six months of their start date. This meant there was a six month collection period. This approach enabled the highest number of valid CR completers to be reported.

3.2 DH CR Commissioning Pack data requirements

Following discussion, the steering group for the project agreed to insert/ modify fields in the NACR dataset to collect information on the following indicators, where possible, including the four key outcome indicators from the DH CR Commissioning Pack (key indicators 1-4):

- the number of in-scope (eligible) patients for CR;
- the number and percentage of patients offered (invited to) CR (Key indicator 1);
- the number and percentage of patients who started CR;
- the number and percentage of patients completing or not completing CR (Key indicator 2);
- the number of patients in whom satisfaction was measured (Key indicator 3); and
- the number and percentage of hospital readmissions (Key indicator 4).

3.3 Additional data requirements

Additional data was required due to changes in the commissioning structure in the NHS since October 2010 when the DH CR Commissioning Pack was launched. The project team took the opportunity to include additional fields to align the reporting of CR activity with the emerging clinical commissioning structure and remit.

The additional fields for the pilot included:

- Referring organisation code;
- GP practice code;
- the number and percentage of patients referred to CR;
- Date of discharge letter to GP;
- functional capacity measurement in heart failure: results of 6-minute walk test; and
- quality of life: Score on Minnesota Living with Heart Failure (MLHF) questionnaire.

3.4 Guide to data input and planned statistical analysis

The project team developed a detailed guide for inputting data (appendix 1).

Table 1. Quick guide for users

	Data Item	NACR Field	Field Definition	Location on NACR
1	The number of in-scope (eligible) patients for CR	NOT COLLECTED ON NACR	N/A	N/A
2	The number of patients offered (invited to) CR - key Indicator 1	Date invited to join programme	Date field – manual entry	Initial event and dates tab (Initiating Event Record)
3	The number of patients who started CR	Date started phase 3	Date field – manual entry	Phases tab (Initiating event record)
4	a) The number of patients completing CR - key Indicator 2 b) The number of patients not completing CR - key indicator 2	a) Date completed phase 3 b) Reason for not completing Phase 3	a) Date field – manual entry b) Drop down list	Phases tab (Initiating event record) (Both a and b)
5	The number of patients in whom satisfaction was measured – key Indicator 3	Did you measure patient satisfaction? (NEW FIELD)	Yes/no/unknown dropdown list.	Phases tab (Initiating event record)
6	Number of hospital readmissions – key Indicator 4	NOT COLLECTED ON NACR	N/A	N/A
7	Referring organisation code	Referring organisation code (NEW FIELD)	Use button for hospital/pct or manual entry	Patient information section (top of record)
8	GP practice code	GP practice code (NEW FIELD)	Use postcode (in local records, or manual entry) or use 'Select practice code' button	Contacts tab (Initiating event record)
9	The number and percentage of patients referred to CR	Date referred for rehab	Date field – manual entry	Initial event and dates tab (Initiating event record)
10	Discharge letter to GP date	Discharge letter to GP Date (NEW FIELD)	Date field – manual entry	Phases tab (Initiating event record)
11	6-minute walk test	6-minute walk test (metres/minutes) (NEW FIELD)	Manual entry – number(s)	Psychological and physical tab (Assessment record)
12	Minnesota questionnaire	Minnesota questionnaire (total score) (NEW FIELD)	Manual entry - number	QOL and employment tab (Assessment record)

4. Results

The pilot project ran for a period of 10 months which included three NACR uploads of relevant data with the final one upload in May 2012. The project kept within the original budget which included funds to the HSCIC for the data field developments and implementation in the database used by the clinical teams on the project. The University of York statistician was able to carry out the data uploads and analysis within the allocated resource.

Seven programmes were recruited and all played a part in testing the feasibility of NACR in meeting the DH CR Commissioning Pack data requirements. One programme (pilot site B) had a remit for acute inpatient CR (phase 1) only and was unable, due to its commissioned remit, to input data for the majority of the CR pathway. Their contribution remained important in defining stage 1 and 2 of the DH CR Commissioning Pack (‘phase 1’ using older terminology) and represented a situation that exists in the wider CR provision.

Six programmes managed to complete all aspects of data entry; data upload and generate data completion tables.

The results section is presented in two sections.

Data completeness summary tables:
- initiating events;
- number entering each phase or key stage of CR; and
- measures of satisfaction for CR delivery stage (phase 3).

Survey of project teams:
- survey questions used to guide the phone or email dialogue; and
- summary responses from the pilot project interviews.

4.1 Data completeness summary tables for pilot sites

One of the aims of the pilot was to assess if data entered could be presented in a format that helps clarify patient flow in a timely manner for providers and commissioners, i.e. to assist with monitoring outcomes and performance in line with the commissioning cycle. The following three tables are based on data collected in one calendar quarter and reported in the following quarter. This equates to a six-month reporting period.

Within each table and in respect of each programme NACR reporting was able to capture CR activity. Table 2 shows that around 71% of in-scope (eligible) patients were offered (invited to attend) CR and out of those 49% started CR (Table 3). The number of patients completing CR was high at 80% and that the reason for not completing is rarely captured. The percentage of patients completing a measurement of satisfaction (Table 4) was low (17%) and variable (5 to 55%).

Table 2. Initiating events in July August September 2011

	Number of patients	Number referred	Number invited	GP discharge letter date	Satisfaction completed
A	223	222	196	184	54
B	101	91	5	3	2
C	435	433	339	91	28
D	222	222	77	0	0
E	90	82	67	88	55
F	283	283	283	0	0
Total	1354	1333	967	366	139

Table 3. Number of patients entering each phase or key stage of cardiac rehabilitation

	Acute CR or Phase 1	Outpatient early CR or Phase 2	Delivery of CR or Phase 3	Completed CR Delivery or Phase 3	% Completing CR delivery or phase 3	Reason for not completing*
A	78	192	125	114	91%	1
B	87	0	1	0	0%	0
C	373	160	118	75	64%	3
D	58	165	56	43	77%	0
E	43	4	36	25	69%	0
F	188	220	136	119	88%	2
Total	827	741	472	376	80%	6

*Only reported for those without phase three completed date

Table 4. Measures of satisfaction for CR delivery stage (phase 3)

	Delivery of CR or Phase 3	Completed CR Delivery or Phase 3	Satisfaction measured	Satisfaction as % of completed
A	125	114	44	39%
B	1	0	0	
C	118	75	4	5%
D	56	43	0	0%
E	36	25	18	72%
F	136	119	0	0%
Total	472	376	66	17.6

4.2 Survey of project teams

DH CR Commissioning Pack: NHS Improvement / NACR pilot: Feedback

Collectively the NHS Improvement and NACR project teams agreed the content and format of the survey questions. Pilot sites could either respond by email or over the phone. Two networks and two clinical teams completed the survey and interview.

Survey questions used to guide the phone or email dialogue

1. What effect has the project had on your current practice in terms of audit/ information gathering?
2. What issues and challenges (if any) arose during the pilot and how did you resolve them?
3. How do you currently (or intend to) collect the data on patients eligible for cardiac rehab ('in-scope' patients)? What issues/ challenges (if any) did you face/ are you facing with the collection of this data?
4. Have you been able to collect the data on readmissions? If so, how? What issues/ challenges (if any) did you face/ are you facing with the collection of this data?
5. Any other comments?

Summary responses from the pilot project interviews

1. *Defining in-scope patients and also readmissions is very difficult as not all services have access to relevant HES data or HRG (PbR) data.*
2. *Some debate over who is responsible for collecting data on in-scope patients.*
3. *Data collection hindered by local issues and not problems with NACR.*
4. *There is considerable pressure from providers and commissioners to collect data on patient satisfaction and experience. Some offer help others do not.*
5. *Need for more guidance on how to measure patient satisfaction and experience and issues raised about the experiences and satisfaction of those patients who did not complete the programme.*
6. *The pilot project created no extra work in terms of data input to NACR but chasing in-scope data is very time consuming. The project was considered too short.*
7. *There needs to be an agreed national definition of when rehab starts, when it finishes and what are the key elements (e.g. phases vs stages or something else).*
8. *Heart failure inclusion is a positive development but create issues when defining in-scope.*
9. *Issues about what local managers require in terms of data and what national audits are pursuing.*
10. *The pilot project has been useful but audit tends not to be a priority in terms of time allocation and staff time to input data.*

Appendix 3 shows the full response from the survey interviews.

5. Discussion

The pilot project aimed to explore the feasibility of aligning the NACR dataset and outputs with the key outcomes and indicators in the DH CR Commissioning Pack with volunteer cardiac rehabilitation programmes. The project was successful in achieving its aims and objectives but there were clear challenges for all programmes in accessing additional data required for the DH CR Commissioning Pack.

5.1 Defining in-scope (eligible) patients

Finding accurate in-scope (eligible patient) data, to inform the denominator of CR uptake, was a huge challenge for all sites at the start of the pilot project. However by the final quarter (table 2) the pilot sites had made significant progress in acquiring this data. As part of regular meetings, correspondence with sites and via the interviews it was clear that the remit and mechanism for collecting in-scope data rests more with commissioners than it does with providers but, with support from the project team and the other pilot participants, most programmes managed to derive the necessary data. Commissioners, by virtue of their role in helping to determine the need and expected demand for health services, have access to Hospital Episode Statistics (HES) data and Secondary Uses Service (SUS) analysts. On the contrary, most CR programmes do not have access or, in many cases, permission to access these services or sources of data which is a major limitation. What is clear from the pilot project is that high levels of communication, collaboration and agreement to share data between service providers and commissioners is vital to ensure that services are responsive in terms of understanding the commissioning brief, auditing and reporting on their services in respect of key outcomes and indicators in the DH CR Commissioning Pack.

As shown in Table 2 the number of in scope patients referred to CR was 98% which is very encouraging as is the figure invited to CR (75%). The number of patients completing CR and having a discharge letter appeared to be much lower (38% of those invited) but it is not clear whether this figure captures all patients who completed or dropped out. The pilot demonstrated that the timeframe for data capture and reporting of patient ‘episodes’ varies between services depending on the resource available for audit and data entry and can take 12 months to complete. This potential delay and the need to allocate resources for data collection and audit should be taken into account by commissioners and providers when agreeing service specifications.

5.2 Collecting readmissions data

The acquisition of readmissions data, as a key outcome measure in the DH CR Commissioning Pack and an important part of a business case for CR, is of prime concern and was therefore set as an aim of the pilot project. Many of the challenges related to defining and obtaining data on 'in-scope' patients apply equally to obtaining data on cardiac readmissions and involves retrospectively tracking hospital episode statistics (HES) data. Access to HES data is limited and querying the HES database is a specialist role within Trusts and Strategic Health Authorities often undertaken by Secondary User Service (SUS) analysts. Generally speaking this specialist analyst role - which involves registration and training - is beyond the scope and capacity of most CR programmes and is outside the remit and responsibility of the NACR. This fact was borne out by the pilot which highlighted that commissioners are best placed to identify mechanisms and resources for obtaining the appropriate analytical support and sharing data with providers accordingly.

Two factors continue to hinder a complete picture of in scope (eligible) patients. Firstly, referral pathways for heart failure patients are often outside of the acute hospital provision and more related to GP-supported heart failure services. These community-based pathways are more challenging to capture. Secondly, inter-hospital transfers between secondary and tertiary providers for revascularization and repatriation of patients to local hospitals continues to present challenges to effective coding and referral for CR. For example, an acute provider may identify some patients as eligible but are not in a position to commence CR due to repatriation back to the local hospital or GP. Providers in district general hospitals or GP services, who deliver CR for these patients, need to ensure appropriate HRG codes are used to capture this activity and to ensure that in scope patients are not missed. Although the DH CR Commissioning Pack acknowledges the importance of stage 0 (identification and referral) in the CR pathway, the primary focus of the DH CR Commissioning Pack is specifying and costing the outpatient pathway to enable effective commissioning. One of the lessons from the pilot was that appropriate coding of patient interventions is a prerequisite to gaining valid data on readmissions from HES queries.

5.3 Defining when CR is started and completed

Table 3 shows that on average 45% of patients who received acute inpatient CR went on to complete outpatient CR. This figure is similar to NACR national trends and highlights that many patients, either by choice or through limited options, do not progress to outpatient CR. Some of these patients may in fact be good self-managers who have exercised their choice to undertake cardiac rehabilitation via their own means, for example by taking part in appropriate physical activity and/ or attending smoking cessation or weight management services. However, the pilot demonstrated that CR programmes often find it difficult to capture this data and in some instances may fail to record it appropriately using the 'reason for not completing' tab in the NACR database. With this in mind, the NACR team is intending to alter the format of this particular field by creating a drop down menu in an effort to make data entry easier.

One of the challenges encountered in the pilot and apparent through the interviews was a degree of confusion over the terminology associated with CR. The DH CR Commissioning Pack effectively replaced the traditional UK terminology of 'phases' of CR (1 to 4) with a pathway of care approach that is made up of seven key stages (stage 0 to stage 6). In contrast to the former 'phases' , these pathway stages are not defined by the location of delivery but instead clearly specify the key elements of patient care and core deliverables for providers at key points.

The 'phases' terminology originated from custom and practice commonplace in the late 1980s, where the care pathway associated with surgical patients and conservatively managed post-MI patients was characterized by long inpatient stays and an extended period of recuperation. However, the subsequent emergence of less invasive interventions like angioplasty and stenting reduced inpatient recovery time significantly such that most patients now spend much less time in hospital and are able to commence CR within days or weeks rather than months. The DH CR Commissioning Pack reference group took the opportunity to define seven key stages (rather than phases) starting with early assessment and early intervention. However, this new approach has created some challenges associated with defining what constitutes the start and completion of CR and consequently with data recording and audit. It is likely that it will take CR programmes some time to alter their processes and supporting paperwork to accommodate the new terminology. However, learning from the pilot has been shared with the BACPR and has, in part, already been instrumental in shaping definitions of the start and completion of CR in their most recent standards and core components (BACPR Standards and Core Components 2012).

5.4 Measurement of patient experience/satisfaction[1]

Audit data and comments from the telephone interviews from the pilot highlight that measuring and reporting patient experience/satisfaction in a meaningful way remains an issue for providers of CR services. Less than 20% of pilot programmes managed to report data on experience/satisfaction. Although the DH CR Commissioning Pack and the new NHS Outcomes

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[1] Although the DH CR Commissioning Pack refers to improved 'patient satisfaction' as an outcome measure for CR, there was general agreement throughout the pilot project that commissioners and providers should attempt to focus on capturing patient experience rather than more subjective, non-specific measures of 'satisfaction'.

Framework domains stress the need for patient experience/satisfaction to be gathered, there is a dearth of national guidance on valid and reliable mechanisms for collecting data and reporting on this vital aspect of patient care. At the same time as our pilot projects were being asked to look at measures of patient experience/satisfaction commissioners were also asking for similar measures but with no real detail on how to do it. During the pilot, NHS Improvement and the NACR worked with projects to support their efforts in defining and measuring patient experience/satisfaction. The NACR database now has a field which enables CR teams to record if patient experience/satisfaction was measured and this features in the commissioner-focused outcomes report. However, it is unlikely that the NACR will be in a position to mandate, advocate, or recommend the use of a specific, validated tool to measure CR patient experience/ satisfaction for comparative purposes in the short term.

Two pilot sites were able to collect data on patient experience/satisfaction data which shows it can be done. Feedback over the pilot period and through the interviews has highlighted the importance of good communication and collaboration between commissioners and CR programmes in agreeing robust local mechanisms for obtaining patient experience/satisfaction. It is important to recognise that obtaining data on the experience of patients who decide not to take up the offer of CR or who drop out is as important as capturing the experience of patients who complete. NHS Improvement continues work across a number of clinical areas to address the wider issue of how to measure patient experience/satisfaction. There are longer term plans for the NACR to develop a categorical variable that will enable providers to say if patients were satisfied or not satisfied with the service they received.

6. Conclusions

The pilot project showed that it has been possible to modify the existing NACR database to capture the key outcome requirements (with one adaptation) set out in the DH CR Commissioning Pack. It has also shown that a user-friendly report can be generated by the database which can be used to present these outcomes. However it is clear that providers and commissioners must work together to establish an effective two way flow of data between and within secondary and tertiary care organisations in order to capture all the necessary data to enable all the fields in the NACR database to be completed and therefore to populate the report. Some of this data can be collected directly from the NACR database, and other data must be collected via mechanisms which should be agreed locally.

The four DH CR Commissioning Pack fields that can be collected via the NACR are:

1. Number of patients offered CR;
2. Percentage of patients who started CR;

3. Percentage of patients completing or not completing CR; and
4. Number of patients in whom experience/satisfaction was measured.

Defining the number of in-scope (eligible) patients for CR and the number and percentage of hospital readmissions was not achievable through the NACR as these variables require access to hospital episode statistics (HES) and Secondary User Service (SUS) data systems. However, the pilot showed that access to these systems is possible at a local level. Appropriate collaboration between commissioners and providers is required to establish suitable local mechanisms to collect and report these data in a timely manner.

The project between NHS Improvement and NACR has led to significant changes in how pilot sites work with audit data. The experiences and lessons learnt during the project have been very useful in enabling clinical teams to collate and input data more effectively across the rehabilitation pathway outlined in the DH CR Commissioning Pack and to present these data to commissioners for aid the monitoring, evaluation and improvement of CR services. The new BACPR Standards and Core Components (2012) have been influenced by the pilot project work most notably in reaching a definition of when CR starts and when it is completed.

The recent publication of two new service commissioning guides by NICE (CMG 39 and CMG 40) and NICE Commissioning Outcomes Framework (COF) indicators reinforce the need for commissioners and providers to make best use of national audits to capture service outcomes.
Based on our experiences with the pilot projects it is clear that the ability to collect and report on patient level data in a timely manner and to participate effectively in local and national audits is not possible without adequate resources. Given that data on outcomes, and in particular the role that good quality CR plays in reducing readmissions, is a cornerstone of a robust business case for CR, it is crucial that sufficient resources for data collection, audit and reporting are built in to CR service specifications.

7. Next steps

The DH CR Commissioning Pack data fields and the additional fields (except GP code) will be adopted by the NACR and built into the new NACR interface being developed by the HSCIC. The reporting fields and reports for commissioners will also be adopted as part of the routine quarterly reporting.

Based on the definitions and criteria used to inform users of the pilot project plus the experiences and dialogue with commissioners and programmes the NACR will, over the next year, develop an appropriate terminology, in liaison with the BACPR, to define and report CR. This will look to replace the ‘phases’ terminology with something aligned with the DH CR Commissioning Pack but will not simply adopt the ‘stages’ terminology.

The NACR will also endeavour to develop a unifying categorical response data field for patient experience/satisfaction for those patients who participated in CR and those patients that opted out. The NACR ‘reason not completing CR’ field will include more comprehensive options to capture why patients decide not to continue with CR.

Information on these developments will be posted on the NACR website at
http://www.cardiacrehabilitation.org.uk/nacr/ in due course.

Appendices

Appendix 1: Guide for pilot sites for data input and statistical calculations

The numbers in the following section relate to the table 1 DH CR Commissioning Pack and additional data fields.

1. The number of in-scope (eligible) patients for CR

Definition

'In-scope' or eligible patients are defined fully in the DH CR Commissioning Pack. Annex 1 of the service specification template provides a full list of codes covering the relevant diagnostic groups.

How to collect the information

In most cases this number will be collected by the managers responsible for the contracting or the commissioners as CR staff do not have easy access to this information. You will need to agree a process with your local Trust/CR area, which will ensure this information is regularly available to you on specified dates.

How is it calculated

The number is drawn from a set of clinical codes for diagnoses and interventions that are used by the NHS as part of the hospital payment system Payment by Results (PbR).
Note: as well as collecting data against all in-scope patients as defined by the DH CR Commissioning Pack*, it is also recommended that you collect data against the actual groups of patients that you are commissioned to provide CR services for in your area. This will allow you to demonstrate the uptake against all in-scope patients as defined by the* DH CR Commissioning Pack *as well as demonstrate this as a percentage against the actual number of 'eligible' patients defined and agreed locally.*

2. The number and percentage of patients offered (invited to) CR (key indicator 1)

Definition

The offer date is the date on which *the patient was invited to attend a first appointment with the cardiac rehab service. In the* DH CR Commissioning Pack *pathway this first appointment is usually an assessment appointment.* For the purpose of this work, the definition of rehabilitation is shown in figure 1 which is taken from the DH CR Commissioning Pack and BACPR 2012:

Figure 1. Cardiac rehabilitation definition used in the NHS Improvement projects

Cardiac rehabilitation is said to have occurred when a patient:

- Has been assessed using valid measures that address the core components of rehabilitation and secondary prevention *(*DH CR Commissioning Pack*, BACPR 2012);*
- Has had a discussion with appropriate members of the CR team and agreed appropriate

programme goals (according to baseline *assessm*ent and patient needs);

- Has undertaken and completed a clear rehab delivery plan (based on patient choice and preference) and in accordance with the BACPR core components;
- Has completed a final assessment (post-delivery of the core components) using valid measures*;*
- Has agreed and facilitated a long term self-management plan for ongoing rehabilitation upon being discharged from any 'formal' cardiac rehabilitation programme;
- Has completed and sent a discharge letter to the GP outlining progress and ongoing management;
- Has been sent and completed a measure of patient satisfaction.

Note: Advice and information leaflets alone do not count as 'cardiac rehabilitation'

How to collect the information

This number is counted by NACR when you fill in the 'Date invited to join programme' box on the 'Initial event and dates' tab in the initiating event record on the database.

How is the percentage calculated

To calculate the percentage offered CR, the number offered will be counted by the NACR database and will be sent to you every quarter by the NACR team at York. The percentage is the number of patients offered CR divided by the number of 'in-scope' patients (see point 1) multiplied by 100. As the denominator (the number of in-scope patients) is not collected on the NACR database, the percentage must be calculated manually by individual sites/ services.
% offered CR = number of offered patients ÷ number of 'in-scope' patients × 100

3. The number and percentage of patients who started CR

Definition

This is the date of first active participation in an agreed plan of cardiac rehabilitation. If it is a group-based programme, it is the date of the first attendance at the group or, if home-based or individualised, it is the date on which the patient undertook their home supported activity. The patient may have been seen on the ward or in a clinic, or at a home visit and given general advice and things to read. However important this is not what we mean here as the first day of CR unless that advice meant them doing something observable, i.e. a structured home exercise plan.

How to collect the information

This is counted by the NACR database when you complete the 'Date started phase' box on the phases tab of the initiating event record under phase 3. The type of cardiac rehab offered to the patient may not fit with the 'traditional' phase 3 model, but for the purposes of this pilot, please use this field to record the start of cardiac rehab as defined by the CRCP and figure 1.

How is it calculated

To calculate the percentage that started CR, the number who started will be counted by the NACR database and will be sent to you every quarter by the NACR team at York. The percentage is the number of patients who started CR, divided by the number of 'in scope' patients (see point 1) multiplied by 100. As the denominator (the number of in-scope patients) is not collected on the NACR database, the percentage must be calculated manually. Example: % started CR = Number of started CR patients ÷ number of 'in-scope' patients × 100.

4. The number and percentage of patients completing CR (key indicator 2)

Definition

Patients will have taken part in the delivery of the core components of CR as outlined in figure 1 and in accordance with the *BACR 2007 standards and core components and DH CR Commissioning Pack definition).* Figure 2 outlines the criteria for how to decide when, for the purposes of this pilot, a patient will have completed CR.

Figure 2. Cardiac rehabilitation completion in the NHS Improvement projects

Cardiac rehabilitation is completed when: A final assessment (post-delivery of the core components) using valid measures *has been undertaken (BACR 2007 and soon to be updated BACPR 2011);* a long term self-management plan for ongoing rehabilitation has been agreed with the patient upon being discharged from any 'formal' cardiac rehabilitation programme; a discharge letter to the GP outlining progress and ongoing management has been completed and sent; the patient has been sent a patient service satisfaction survey or some measure of patient satisfaction has been undertaken.

How to collect the information

This number is counted by NACR when you fill in the 'Date completed phase' box on the phases tab under phase 3 (as explained above). If a patient has not completed CR, it is imperative to record the reason using the 'Reason for not completing' box on the same phases tab as this will be used to 'count' the number of people who did not complete/ dropped out.

As many CR services now operate rolling programmes in which new patients can start (and finish) at any point, it is difficult to capture drop-out and completion rates in a quarterly period. For example, some people who started at the end of a quarterly period, e.g. the last week in June in quarter 1 (April-June), will not have completed until the middle of the *next* quarter, e.g. August (quarter 2: July-Sept).

The NACR will count the number of people who started CR in *each* quarter. The NACR will also count whether these patients complete rehab. In order to capture this information, sufficient time needs to have elapsed for the patient to have completed rehab. Reports will be prepared at the end of the following quarter. This approach will capture the majority of activity in any quarter (as most people who started at any point in the first quarter will have completed by the end of the second quarter) but will result in a three-month delay in obtaining information on completers/ drop-outs.

How is the percentage calculated

The denominator is the number of people who 'started' rehab and the numerator is the number of those that complete.

% completed CR = number completed CR ÷ number patients that started CR × 100

The percentage recorded as having 'dropped out'/ discontinued CR *could also be expressed in relation to the number that started*.
% dropped out = number dropped out ÷ number patients that started CR × 100

Example: in quarter 1, 80 started rehab, of these 65 completed and 15 did not complete.

% completed = 65/80 = 81%
% dropped out = 15/80 = 19%

5. The number and percentage of patients in whom satisfaction was measured (key indicator 3)

Definition
How to measure patient satisfaction is to be arranged on a service by service basis with the local commissioner using a valid measure of patient satisfaction agreed between the commissioner and provider. Research suggests that there are various measures of satisfaction/experience, many of which reach similar outcomes. The Picker Institute has developed guidance for patient satisfaction/experience measurement for the NHS which is available at http://www.nhssurveys.org/.

The pilot study is looking to determine if programmes are measuring patient satisfaction/experience. The NHS Improvement pilot and NACR are not collecting data on whether patients 'were' or 'were not' satisfied with CR. This level of information is for providers to improve their own programmes and may only be sought, from the provider, by the commissioner if issues about the service exist.

How to collect the information
The number of patients who have been asked if they are satisfied is counted by NACR when you select 'yes, no, or unknown' on the new field labeled 'Did you measure patient satisfaction' on the phases tab.

How is the percentage calculated
To calculate the percentage of patients in which satisfaction was measured, the number of 'yes' responses to the field/ question 'Did you capture patient satisfaction?' will be counted by the NACR database and will be sent to you every quarter by the NACR team at York. The percentage is the number of patients in whom 'yes' is measured divided by the number of patients who completed CR multiplied by 100.

Example
% in whom satisfaction was measured = Number of yes responses ÷ number completed × 100

6. The number and percentage of hospital readmissions (key indicator 4)

Definition
This represents the number of hospital readmissions for another cardiac event as a percentage of readmissions in a baseline year.

How to collect the information

This number will be collected by the managers responsible for the contracting/ commissioning as CR staff do not usually have access to this information. There is a need to establish a mechanism for accessing Hospital Episode Statistics (HES) data with local audit staff. The number of patients who completed CR is evaluated for readmission using HES data.

How is the percentage calculated

The number of readmissions, for all in-scope patients in the year following completion of CR, is divided by the number of readmissions for the baseline year.

Not collected by the NACR.

Example: % readmitted = number of patients readmitted ÷ number readmitted in baseline year × 100

7. Referring organisation code

Definition

This code represents the organisation that is responsible referring between a number of different hospitals and GP practices.

How to collect the information

This is entered into the database on the patient information section on the first page.

If the referring organisation is a hospital/pct, click on the button to select the correct organisation (they are listed alphabetically). If the referral is from a GP, the GP code can be directly typed into the box. (The GP code can be found on the 'Contacts' tab by clicking on the 'Select practice code' button. They are sorted by postcode).

This is a new field in the NACR.

8. GP practice code

Definition

This code helps identify the specific GP practice.

How to collect the information

This is entered on the 'Contacts' tab of the initiating event in NACR. When you enter the GP information from your locally stored list (or enter a new one), the post code will identify the GP practice code from the stored list, and this will be inserted for you. Alternatively you can click on the 'Select practice code' button to find the GP Practice code (sorted by postcode) from the stored list. The list is generated by the NHS and is available as a drop-down on the NACR patient information page.

This is a new field in the NACR.

9. The number and percentage of patients referred to CR

Definition

Referred patients include all those identified and referred by yourself, (this includes counting all patients as 'referred' even if you have seen them in hospital and are effectively referring them to your own CR service for further care in another phase or stage) or referred for cardiac rehabilitation by any other clinician, and/ or people who self-referred.

How to collect the information

The number of patients referred to CR is counted by NACR when you complete the 'Date referred for rehab' box on the 'Initial event and dates' tab of the initiating event record on the database.

How is the percentage calculated

To calculate the percentage referred the number referred will be counted by the NACR and will be sent to you every quarter by the NACR team at York.

The percentage is the number of referred patients, divided by the number of 'in-scope' patients multiplied by 100. For the denominator (in-scope patients) see point 1 above. The percentage must be calculated manually by individual sites/ services.

Example

% referred to CR = Number of referred patients ÷ number of 'in-scope' patients × 100

10. Discharge letter to GP date

Definition

The date you sent the discharge letter.

How to collect the information

This is manually entered on the 'Phases' tab of the NACR database.

This is a new field in the NACR.

11. Functional capacity measure in heart failure: six-minute walk test

Definition

This is a widely used assessment of physical fitness. Patients are asked to walk on a measured track or walkway at a comfortable pace for a maximum of six minutes; the number of metres walked is calculated and - if less than six minutes - the time to complete the walk is also recorded. A stop watch and a known distance is all that is required.

How to collect the information

The information is entered as the number of meters walked and the number of minutes walking on the 'Psychological and physical' tab on the assessment record of NACR.

This is a new field in the NACR.

12. Quality of life: Minnesota living with heart failure (MLHF) questionnaire

Definition

The Minnesota living with heart failure (MLHF) questionnaire is a validated health related quality of life questionnaire. There are 21 items scored on a scale of 0 to 5 with a maximum possible value of 105. The higher value indicates poorer quality of life. The questionnaire is supplied with a manual that explains the scoring method.

It is under copyright and is therefore the responsibility of each programme to obtain permission to use it. Permission to use it is often given free of charge for non-research institutions or individual clinical practices.
http://www.mapi-trust.org/services/questionnairelicensing/cataloguequestionnaires/70-mlhf

How to collect the information

This is entered on the 'QOL and employment' tab on the assessment record. The only score recorded is the 'Total' score.

This is a new field in the NACR.

Note: If you wish to use the 'Advanced search function' in Lotus Notes to generate your own quarterly data, please contact the NACR team who can help with how to do this.

Appendix 2: NACR commissioning report template

This template was designed for the use of providers and commissioners of Cardiac Rehabilitation (CR) services. The report is generated from NACR data but will require some additional manual data entry (to be agreed locally) in order to monitor the key outcome requirements as outlined in DH CR Commissioning Pack (DH, 2010)

Name of site/programme:

Date of report:

Key outcome 1: There will be an increase in the number of patients *offered* CR

Data for patients with an initiating event between;

dd/mm/yyyy and *dd/mm/yyyy*

Number of patients offered CR services

(From 'Invite Date' on NACR. This value will then appear in the box from NACR database)

Number of in scope patients

(Manual entry by provider or commissioner).
State data source (e.g. HES, PCT)...

#DIV/0! **Number of in scope patients offered CR as a % of all in scope patients**

(Number in % generated from the 2 boxes above where invite date ÷ in-scope x 100)

Key outcome 2: There will be an increase in the number of patients *completing* CR *(in the data reporting period)*

(Data from NACR will count only those patients who 'start and complete' OR 'start and drop out/discontinue' within the reporting period. Additional data on number and % of patients dropping out/discontinuing CR is also calculated)

Data reporting period:

e.g. Quarter 1 (date)+ Quarter 2 (date). Suggest this outcome is reported 6 monthly to capture both start & completion/drop out dates:

☐ Number of patients who ***started*** CR

(From 'Started Phase 3 date' on NACR. This value will appear in the box from NACR database)

☐ Number of patients who ***'drop out'*** or ***discontinue*** CR

('Reason for not completing' Phase 3 box must be filled in on NACR: This value will then appear in the box from the NACR database)

☐ Number of patients ***completing*** CR services

('Date completed' for Phase 3 box must be filled in on NACR. This value will appear in the box from NACR database)

☐ Number of patients who *'drop out'* or *discontinue* CR as a % of those who started

(Number in % generated from the 2 boxes above where no. who drop out ÷ no. who started x 100)

☐ Number of patients completing CR as a % of those who started

(Number in % generated from the 2 boxes above where Phase 3 completed ÷ no. started x 100)

Key outcome 3: As a result of cardiac rehabilitation there will be a reduction in number of re-admissions due to secondary cardiac events and unplanned procedures within 12 months after completing CR.

(Please Note: Key outcome 3 is not available via the NACR database. Local mechanisms will need to be established to enable collection of this outcome data so that it can be reported here).

☐ Number of ***patient readmissions*** for a cardiac event over a 12 month period

(Manual entry by provider or commissioner agreement)

State source of data (e.g. HES, PCT etc)……………………………..

State start/end date of 12 month period……………………………….

☐ Number of readmissions for a cardiac event over a 12 month period in baseline year

(Manual entry by provider or commissioner agreement)

State data source (e.g. HES, PCT etc)……………………………….

State start/end date of 12 month period……………………………….

☐ Number of hospital readmissions for a cardiac event over one financial year as a % of readmissions in baseline year

Key outcome 4: There will be an increase in number of patients satisfied with the service they receive for cardiac rehabilitation.

Working towards delivering Key Outcome 4, the NACR can currently support sites with reporting the following preliminary related data:

Percentage of patients (who have completed CR services) completing *satisfaction* survey for CR

☐ Number of surveys completed

('Did you measure patient satisfaction' box must be filled in on NACR. This value will then appear in the box from NACR database).

☐ Number of patients *completing* CR services

(from 'Date completed'- phase 3 on NACR. This value will then appear in the box from NACR database).

☐ **%** of patients completing CR who have also completed a satisfaction survey

(Number in % generated from two boxes above where satisfaction survey completed ÷ phase 3 completed x 100)

References: Key outcomes and indicators *(DH CR Commissioning Pack 2010)*

Appendix 3: Responses from the pilot project interviews

Responses are displayed in red text below.

Phone response 1

Question 1: Effect on current practice in terms of audit/ information gathering? The team found it positive, and no problems collecting data.

Question 2: What challenges were there: None highlighted by the team regarding NACR

Question 3: Obtaining data for 'In scope' patients: Have been trying to get this data, but the way the data is collected by the NHS makes it difficult, as it is not broken down e.g. Cardiology. This issue is being raised with commissioners. Has been a challenge!

Question 4: Obtaining data on readmissions: As for question 3.

Question 5: What else would be useful: Help defining patient satisfaction.

Phone response 2

Question 1: Effect on current practice in terms of audit/ information gathering? There was no fundamental change in data collection – NACR little changed. Patient satisfaction being done at programmes, mainly as means of looking at the value of service, due to threats to programme recently. Network has questionnaire for services, and also supply excel sheet to calculate % for evaluation. The assessment process looks less at satisfaction/experience and more at involvement and understanding such as perception of the programme.

Question 2: What challenges were there: Pilot created no extra work, but no convictions that they were doing anything different. Programme(s) have issue with phases and definition of when rehab starts.

Question 3: Obtaining data for In Scope patients: New conditions (e.g. heart failure) not being identified – need to revisit service specs and contracts.

Question 4: Obtaining data on readmissions: We have access to HES data in one area but not in another area in the same geographical region. Problems with old / out of date readmissions data. IT contacts get date for outpatients/hospital readmissions, but no access to data for programmes separate to hospital (social enterprises etc.). Commissioning decisions/discussions not based on readmissions – no data link to CR.

Question5: General: focus is on how many should service offer CR to – activity rather than uptake/completion. Note that additional software (for example RIO) being used to collective activity data about number of patients contacted.

Phone response 3

Question 1: Effect on current practice in terms of audit/ information gathering? Yes it was useful particularly obtaining patient opinion. The team had already done a lot of work around

NACR to ensure the service fits with how the programme runs though, three months to collect figures is not always enough – therefore figures on reports not representative of patients seen. Team have upped the speed of data entry to NACR, just for the pilot, so that counts are more accurate (this will not be maintained going forward though, as not enough time/staff). Figures for non-attendees are the most up to date. In terms of tracking monthly activity – use a manual record of all those patients contacted – these are phoned within five working days. No other software used, no time – focus on NACR.

Question 2: What challenges were there? There is a gap between what information is requested by managers, and what NACR reports.

Question 3: Obtaining data for 'In scope' patients: Very very difficult to get figures – trust not replying (their attention is elsewhere).

Question 4: Obtaining data on readmissions: Info 'unheard of' – problems with accuracy of coding etc.

Question 5: What else would be useful? On-going issue with phases vs stages; and NACR comparing 'like with like' when all programmes are so different, and programmes are having to 'fit' to NACR.

Emailed Feedback:

Questions for users/ providers

1. What effect has the project had on your current practice in terms of audit/ information gathering?

Initially it required minimal adaptations to our paperwork to enable us to collect the data. A comprehensive review of the first months data, in July showed that patients who were referred outside of the area where often mistakenly not inputted onto NACR, we have reviewed our processes to reduce the likelihood of this happening again. Our team had not used evaluation/patient satisfaction forms for some time, the pilot has led us to create a new form which was too late it is creation for the pilot but available for use now. Our clerk has also compiled her own list of GP codes which she uses in other areas of her job. We have also started to send discharge letters to GPs, a task previously stopped to enable use of resources elsewhere.

2. For what purpose do you intend to use the report? (e.g. for local evaluation of your service, as part of the performance monitoring of your service for commissioners, other, etc.)

It has led has to use evaluation/patient satisfaction forms and therefore upon analysis we are likely to make improvements to our service.

3. How do you think local commissioners and/or managers in your Trust will use the report?

They instructed that we use evaluation/patient satisfaction forms.

4. How helpful/useful did you find the guidance document, produced by NACR and NHS Improvement, in completing the new fields and for understanding how the NACR is used? How could the guidance be improved?

Initial thoughts were that it was user friendly, we did not have difficulties using it. Improvements that some centres felt were needed appeared to be discussed at length and sorted during conference calls, I have nothing further to add.

5. What issues and challenges (if any) arose during the pilot?

The timeframe was too short with regards to when the data was analysed by NACR as during the pilot we accrued a waiting list and this did not allow for us to show in the analysis true facts on when patients had completed phase 3 exercise.

a. How did you overcome them?

We did not overcome them as we were assured it was not of consequence by NACR during a conference call.

Questions for managers/commissioners

1. How do you currently (or intend to) collect the data on patients eligible for cardiac rehab ('in-scope' patients)? What issues/ challenges (if any) did you face/ are you facing with the collection of this data?

We have fairly watertight processes in place that guarantee collection and inputting of data onto NACR such as check sheets on the front of the paper pathway to ensure relevant information collection and a local database to check NACR entries against.

Recent changes to when we make initial contact with patients have reduced the quantity of Assessment 1s given to patients, a recent review has resulted in changes being made that should improve this.

2. Have you been able to collect the data on readmissions? If so, how? What issues/ challenges (if any) did you face/ are you facing with the collection of this data?

This data has not been collected as the need is not recognised locally and time has not been given by management to do it. It remains my intent to investigate this further in the future.

3. Is the format, content and proposed frequency (quarterly) of the report useful in informing commissioning? Can you suggest any improvements?

Quarterly reports are much easier to keep track of events within our service and I'm sure if the service were to be commissioned this would make quarterly reports all the more important.

4. Is there anything else that you consider essential that NACR could perhaps collect and report to inform commissioning?

Much discussed during the conferences but would be much better to use Stage 0-6 rather than phases 1-4.