Developing a Supportive Care Service for Patients following Percutaneous Cardiac Intervention (PCI)

Keywords: Cardiac rehabilitation, percutaneous cardiac intervention, post discharge care, risk factor modification

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Project team:
Sue Francombe, Coronary Heart Disease Lead Nurse (Torfaen), Aneurin Bevan Health Board
Angela Knott, Cardiology Specialist Nurse, Aneurin Bevan Health Board

Contacts details: Sue.Francombe@wales.nhs.uk; Angela.Knott@wales.nhs.uk

In association with the Foundation of Nursing Studies and the Burdett Trust for Nursing

Summary
Coronary heart disease (CHD) is a leading cause of death in the United Kingdom, particularly in Wales, where the death rate is greater than in the majority of countries in Western Europe (Welsh Assembly Government, 2009). Percutaneous coronary intervention (PCI) is sometimes called angioplasty, stenting or percutaneous transluminal coronary angioplasty (PTCA) and describes a range of interventions used to treat people with blocked or narrowed coronary arteries (The Cardiologist, 2012).

The aim of the project was to understand the patient experience of PCI and use this to develop a post PCI service that was responsive, timely and patient centred. The main method was patient focus groups, which allowed a flexible and direct means to ensure the patient’s experience was understood and shared. The stakeholder group, which consisted of all professionals involved in the PCI patient pathway, then used this information to direct their action plan and implement new and innovative ways of working, using very little financial resource, to enable the provision of a cardiac rehabilitation programme for this group of people. At the start of the project, 15% of patients were referred to cardiac rehabilitation following PCI and on completion of the project, 84% of patients were referred to cardiac rehabilitation. Added to this, the outcome from the second focus group, which was held at the end of the project, indicated that overall patients were more satisfied with the support and care they received following discharge.
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Introduction
Coronary heart disease (CHD) is a leading cause of death in the United Kingdom, particularly in Wales, where the death rate is greater than in the majority of countries in Western Europe (Welsh Assembly Government, 2009). Aneurin Bevan Health Board (ABHB) in Wales consists of five localities, Torfaen, Blaenau Gwent, Caerphilly, Newport and Monmouthshire and serves a population of 550,000 people. Two of the five localities (Blaenau Gwent and Caerphilly) have significantly higher rates of deaths from CHD than the rest of Wales and three of the five localities (Blaenau Gwent, Caerphilly and Torfaen) have high levels of unemployment, deprivation and poverty. It is well documented that deprived communities usually have higher levels of smoking, more sedentary lifestyles and poorer diets than more affluent areas which increases the risk for heart disease (Welsh Assembly Government, 2009). Within the five localities, there are four cardiac rehabilitation teams covering all of the ABHB catchment area. These are divided as listed below:

- Torfaen
- Newport and South Monmouthshire
- Caerphilly
- Blaenau Gwent and North Monmouthshire

Cardiac rehabilitation is an evidence-based, life-saving and cost effective intervention that reduces mortality and morbidity in patients recovering from cardiac illness (British Association of Cardiac and Preventative Rehabilitation, 2012). It is recommended by the Scottish Intercollegiate Guidelines Network (2002), the National Institute for Health and Clinical Excellence (NICE) guidance on Myocardial Infarction and Secondary Prevention (National Institute of Clinical Excellence, 2007) and in the Cardiac Disease National Service Framework (Welsh Assembly Government, 2009). The British Association for Cardiac and Preventative Rehabilitation (BACPR) (2012, p 2) defines cardiac rehabilitation as:

‘The coordinated sum of activities required to influence favourably the underlying cause of cardiovascular disease, as well as provide the best possible physical, mental and social conditions so that the patients may, by their own efforts preserve or resume optimal functioning in their community and through improved health behaviour, slow or reverse progression of disease.’

It provides patient assessment, a structured programme of advice and education on lifestyle and self-management. Traditionally it has been described in four phases:

- Phase 1 – Inpatient phase
- Phase 2 – Immediate post discharge phase
- Phase 3 – Structured hospital or community outpatient programme or home programme provided by a multidisciplinary team
- Phase 4 – Community support/exercise group

More recently, it has been recognised that cardiac rehabilitation should be individualised to the needs of the patient and strict adherence to the four phases is no longer relevant (British Association of Cardiac and Preventative Rehabilitation, 2012). Delivery of programmes can be organised in many different ways and across different settings. Currently, due to limited resources in the majority of cardiac rehabilitation centres across Wales, priority is given to patients following an acute myocardial infarction and post cardiac surgery. However, the British Association of Cardiac and Preventative Rehabilitation (2012) suggests programmes should be aimed at a wider range of cardiac conditions including following percutaneous coronary intervention (PCI). PCI is sometimes called angioplasty,
stenting or percutaneous transluminal coronary angioplasty (PTCA) and describes a range of interventions used to treat blocked or narrowed coronary arteries (The Cardiologist, 2012).

In 2009, a business case was presented to the Welsh Government by the Aneurin Bevan Health Board (ABHB) cardiology directorate to commence PCI at the Royal Gwent Hospital. Patients could not receive this service locally and were having to travel to the tertiary centre in Cardiff. The Welsh Government approved the business case and in May 2011, PCI commenced in the project team’s area. Over the next three years the projected number of patients who would undergo this procedure were:

- 2011 – 2012: 400 patients
- 2012 – 2013: 600 patients
- 2013 – 2014: 800 patients

Studies suggest that although PCI is minimally invasive, following PCI patients experience more anxiety and lower social support compared with patients following coronary artery bypass graft surgery (Astin et al., 2005). It has also been well documented that a high priority is the need to receive information about their recovery and the need to talk with a health professional and generally, patients have felt that these needs were not being met (Nicholas, 2007). As a result, patients who are able to seek information may do so from unreliable sources for example family members or the internet, which can lead to misconceptions and inaccurate information about their condition and their recovery. This can affect their physical, psychological and emotional recovery and can delay their return to work and to their former activities.

The ABHB cardiac rehabilitation teams found that because the patients were treated so quickly (in hospital maximum of two days), patients following PCI were not provided with follow up information, support and an opportunity to discuss their concerns or worries before their discharge from hospital. Alongside this, patients received very little information regarding further reducing the risk of cardiac disease, advice on returning to work or former activities or assessment of any chest pain they might have. Patients were often advised by ward staff on discharge that their follow up outpatient appointment with the cardiologist would be in three months, but in reality, due to the long waiting times, appointments were usually at six to nine months post discharge.

In the initial business case, funding for two full time nurses was sought to help the current cardiac rehabilitation team provide a service for patients post PCI. Unfortunately, due to budget overspend elsewhere, the initial funding allocated to provide cardiac rehabilitation was used to meet these costs and there was no additional funding available to provide cardiac rehabilitation for this patient group. However there was an expectation from patients, carers, other nursing colleagues, cardiologists and managers that a post PCI service would be offered.
Aim
To understand the patient experience of PCI and use this to develop a post PCI service that is responsive, timely and patient centred.

Objectives
The project team in partnership with stakeholders wanted to:
- Understand the patient experience of PCI
- Engage key nursing and medical staff and share the patient experience of PCI
- Work as a stakeholder group to develop practice and implement a rehabilitation service for patients undergoing PCI

Methods and approaches
A number of methods and approaches were used. These are summarised in Table 1 and will be discussed below.

Table 1: Outline of key activities and the methods and approaches used

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<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Methods and approaches</th>
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<tr>
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<td>1st patient focus group</td>
<td>Facilitated small group discussions</td>
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<tr>
<td>20/3/2012</td>
<td>1st stakeholder group meeting</td>
<td>Values clarification exercise to create a shared mission</td>
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<td>Review of data from 1st focus group, followed by Claims, Concerns and Issues to inform the development of an action plan</td>
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<td>16/5/2012</td>
<td>2nd stakeholder group meeting</td>
<td>Process mapping</td>
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<td>22/8/2012</td>
<td>3rd stakeholder group meeting</td>
<td>Discussion centred around 2 questions</td>
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<td>14/11/2012</td>
<td>4th stakeholder group meeting</td>
<td>Discussion centred around 3 questions</td>
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<td>30/1/2013</td>
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<td>5/12/11</td>
<td>Audit of patients undergoing PCI</td>
<td>Audit of numbers of patients referred to the cardiac rehabilitation teams pre and post the project</td>
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<td>15/2/13</td>
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1st patient focus group
Focus groups are useful to confirm, explore or clarify ideas about a set of predefined issues. They allow in-depth, open-ended discussion and exploration into an individual’s experience and insights (Gerrish and Lacey, 2006). They are also an efficient way of obtaining opinions with a reasonable level of detail (McDonagh-Philp and Bruseberg, 2000).

Two patient focus groups were held, the first at the start of the project and the second at the end of the project. The main aim of the focus groups was to ask patients to provide feedback on their own experience and journey following PCI.
The first focus group took place on Wednesday 29th February 2012. The project team identified patients from the PCI lists (which were available from the ABHB informatics department) hospitalised between September 2011 and January 2012 as eligible to participate. A member of the project team randomly selected potential participants from across all five localities within ABHB and then telephoned them to explain the project and invite them to take part. If the patient was interested this was followed up by an invitation letter (see Appendix 1). The letter was explicit as to the purpose of the focus group and how it could provide an opportunity for them to share their experiences. A return stamped addressed envelope was provided for replies to confirm attendance. Participants were assured of the confidentiality of the information received and written consent was obtained (see Appendix 2). Ten patients accepted the invitation for the first focus group, of which eight were male and two were female.

Both focus groups were held in a hotel, which was in a central location within the health board area, and commenced at 10am and lasted until 1pm with tea and coffee provided throughout the morning and lunch provided at 1pm. The hotel and room had disabled access and toilets. A map and instructions were sent to all those who agreed to attend to direct participants to the venue and room. The cost of refreshments and participants’ travel expenses were met by the FoNS bursary. Travel expense forms were provided for both focus groups, to allow participants to claim back their travel costs, as it was hoped that that this would encourage attendance. The cost of the stamped addressed envelopes to return replies and consent forms was met by the health board.

The first focus group was facilitated by the ABHB patient experience lead nurse, an experienced, impartial and neutral individual who facilitated the discussions. She had not had any prior involvement with cardiac rehabilitation activities. The project leads acted as scribes. The format consisted of small working groups, two groups of three and one group of four patients, which then contributed to the larger group.

McDonagh-Philp and Bruseberg (2000) argue that before beginning a focus group it is important to decide how the group will be structured. This will assist in meeting the aims of the group, keeping the conversations on track and maintaining good time management. The programme and themes for discussion were established by the project team prior to the focus groups to ensure appropriate discussion and a focus on the project aims (see Appendix 3). One of the limitations of focus groups can be the reliance on the facilitator’s skill in encouraging discussion while avoiding individuals dominating, excluding and influencing others (Gerrish and Lacey, 2006). In designing the format of the questions for the focus groups, the project team hoped to encourage the group to interact together rather than with the facilitator (McDonagh-Philp and Bruseberg, 2000). The participants were asked about their views using a semi-structured series of open questions (see Appendix 4). The responses were captured by the project leads taking notes.

The data from the focus group was in the form of scribed conversations, the analysis of which can be complicated. These were transcribed in house and thematic analysis was undertaken with the facilitator and project team identifying categories to establish key themes. An important aspect of the analytical process was identifying areas of agreement, controversy and where the discussions caused views to be modified. Gerrish and Lacey (2006) argue that identifying themes as a group is beneficial and that these can be used to reflect the progression of the discussion over time. To preserve integrity when presenting the results, quotations were used (Kitzenger and Barbour, 1999; Webb and Kevern, 2001).
Findings of 1st patient focus group

The main themes that came out of the first focus group (the full findings of the first focus group can be found in Appendix 5) were that:

- Post discharge care was inequitable
- The information given was not clear or consistent
- Care was disjointed and there was a distinct lack of communication
- There was a lack of post discharge care and support

Comments such as:

‘I was afraid to do anything when I went home in case the stent became dislodged’
‘I had no advice on whether I could go back to work, the consultant told me to go back when I felt ready….what does that mean?’
‘I have had all sorts of aches and pains and I am constantly worrying it is my heart’
‘I was told my angina has been cured! Why don’t I feel ‘cured’ then?’

On discharge, those who experienced problems following the procedure said that they did not feel they could contact the on-call medical registrar after the day ward had closed but it is unclear why they felt this.

Stakeholder group meetings

To identify influences and barriers on care, the project team invited professionals who represented areas involved in the patient’s journey to be part of the stakeholder group. These included:

- Primary care colleagues
- Ward staff
- Cardiac rehabilitation team members
- Cardiologist (interventionalist)
- Cardiology directorate manager

Stakeholders meetings took place bi-monthly and four meetings were held during the project duration. Within this group a number of approaches were used to enable the project to progress.

1st stakeholder group meeting

The first stakeholders meeting was attended by the four cardiac rehabilitation leads, the consultant nurse for heart failure and cardiac rehabilitation, the ward sister from the inpatient ward and a nurse from the coronary care unit; it was facilitated by the FoNS facilitator. The meeting was held as a half day workshop and a values clarification exercise was undertaken, the findings from the first patient focus group were shared and then a claims, concerns and issues (CCI) exercise was carried out.

Values clarification exercise

Dewing (2007) argues that values and beliefs underpin professional practice and it is essential to clarify these, agreeing common or shared values. This is vital in collaborative practice. It enables development of a shared vision which underpins practice development.

A values and beliefs clarification exercise (Royal College of Nurses, 2007) is an uncomplicated exercise designed to assess and clarify the values and beliefs of key stakeholders. The first stakeholders
meeting included a values clarification exercise that was facilitated by the FoNS practice development facilitator. The facilitator allowed 30 – 40 minutes for this exercise as this was a small group of six people. Flipcharts and sticky notes were used and the group were asked to consider the following questions and write their responses on their sticky notes:

- I believe the ultimate purpose of the project is ...
- I believe this purpose can be achieved by ...
- I believe the factors that inhibit or enable this purpose to be achieved include ...
- Other values/beliefs that I hold about the project are ...

The information from this exercise was collated and common themes were identified by the group, which enabled the stakeholders to develop a mission statement reflecting their shared values and beliefs about the project. This exercise was repeated on the third stakeholders meeting to confirm whether the stakeholders held the same shared values and beliefs.

**Mission Statement**

*The project team believe the purpose of supporting patients following PCI is to enable the patient to achieve the best possible outcome to prevent disease progression through the delivery of a patient centred, resource effective service. This would involve partnership working between relevant stakeholders. Patient centred care would be:*

- Responsive to patient need
- Timely
- Inclusive of education, psychosocial support and activity/exercise
- Inclusive of support for partners/carers
- In the form of a patient centred pathway

**Claims, Concerns and Issues**

Following on from the values clarification exercise, the results from the first patient focus group meeting were then presented to the stakeholders by the project lead. To enable constructive discussion about the findings, a claims, concerns and issues exercise was facilitated by the FoNS facilitator.

Guba and Lincoln (1989) suggest using claims, concerns and issues as a collaborative way of working with stakeholders to gain their views and perspectives. It allows a formal evaluation of various elements of practice development work addressing claims which are favourable assertions, concerns which are unfavourable and issues which are questions related to the project its implementation. The latter usually develop from concerns and a facilitator can invite stakeholders to reconsider their concerns and reframe them as questions which can be explored by all the stakeholders. This can result in constructive criticism and critique (Royal College of Nursing, 2007).

This approach proved invaluable because it enabled the stakeholders to reflect on and discuss their ideas and concerns about the project. What was evident was that everyone in the group had similar aims, which were to improve the patient experience post PCI. What was also apparent was the group had very similar concerns, which were primarily the time that was needed to invest in the project and the financial implications. What was also observed was the enthusiasm and motivation of the group to drive the project forward.
The following questions were developed by the stakeholders and were used to structure the subsequent stakeholder meetings and to develop an action plan (see Appendix 6):

- What information do we give across the patient journey?
- How do we know what the patient journey is?
- How do patients voice their concerns?
- How do we know what support the patients expect following PCI?
- Is there a disparity in services for those who need to return to work?
- How do we assess patients’ social and psychological well being?
- How do we overcome the perception that PCI is a cure?
- Where does cardiac rehabilitation sit within this?
- How do we manage the expectations of colleagues?

The action plan (see Appendix 6) enabled the project leads to progress the work fairly quickly. As a result, a number of immediate changes were implemented to improve information for patients prior to discharge. For example, to ensure early referral of patients to cardiac rehabilitation teams, a ‘tick box’ was added to the PCI pathway.

2nd stakeholder group meeting
The second stakeholder group meeting enabled the team to focus on:

- How do we know what the patient journey is?
- What information do we give across the patient journey?

To achieve this, a process mapping exercise was carried out, led by the consultant nurse for heart failure and cardiac rehabilitation to plot the current patient journey and what information was given along the way. Process mapping is a simple technique for looking at a series of connected steps or actions to achieve an outcome. It can be useful as a reference point for an improvement project (Royal College of Nursing, 2012). The patient’s journey was plotted using ‘long sheets of wallpaper’ and sticky notes. The results were collated and typed onto A4 paper by the project lead to ensure that data was not lost. This data was used to highlight gaps in service provision and to highlight the range of information given to patients along their PCI pathway.

The process mapping exercise (see Appendix 7) identified several issues. It was apparent that there were several routes that a patient could take depending on which hospital the patient had been admitted to. It was also identified that the information the patient received along their journey was variable. The action plan was amended further as a result of this process (see Appendix 6).

3rd stakeholder group meeting
During the third stakeholder group meeting the following questions were explored:

- How do we overcome the perception that PCI is a cure?
- Where does cardiac rehabilitation fit into the patient pathway post PCI?

The general consensus from the group was that patients are exposed to several healthcare professionals along their ‘PCI journey’ and the language used could be misinterpreted by patients. A common language that was consistent across all healthcare professionals should be used to avoid misinterpretation. The stakeholder group agreed that it was important for patients to understand that PCI is not a cure and that they have a responsibility to make lifestyle changes to prevent further problems.
This issue was taken for further discussion to the South Wales Cardiac Network Cardiac Rehabilitation Advisory Group (SWCN CRAG) and it was agreed that the SWCN CRAG would take the lead on developing a post discharge information leaflet to accompany the existing British Heart Foundation booklets describing long term management post PCI and the patient’s role within this. The leaflet has now been developed and implemented across South Wales (see Appendix 8).

The group agreed cardiac rehabilitation teams should be guided by the patients’ view of what they needed. Feedback from patients collected during the focus group indicated that they would like to be contacted by a healthcare professional shortly after discharge. Discussion among the stakeholders identified that for early post discharge contact to happen, a more robust referral process needed to be in place. ‘Trawling the wards’ collecting referrals by cardiac rehabilitation specialist nurses was not a good use of the nurses time when resources were limited. The ward sister managing the inpatient (PCI) ward suggested that their admission book could be photocopied on a daily basis and the list of patients then faxed to the local cardiac rehabilitation teams. This would ensure that all patients undergoing PCI would be identified and referred to cardiac rehabilitation in a timely manner. This simple method has been implemented and has proved effective and by the end of the project 84% of patients following PCI had been referred to the cardiac rehabilitation service.

4th stakeholder group meeting
The fourth and final stakeholder meeting focused on addressing the final three questions. Firstly:

• Is there disparity in services for those that need to return to work?

General discussion took place and the following were explored:

• Extra cardiac rehabilitation classes in the evening. Past experience for cardiac rehabilitation teams who had provided evening classes was that doing this was expensive and usually poorly attended
• Early referral into the National Exercise Referral Schemes which was the preferred option

It was agreed in this meeting that cardiac rehabilitation teams would ask patients who are returning to work what they would like and accommodate them where possible.

The second question addressed was:

• How do we assess the social and psychological status of patients post PCI?

What was evident was this would be difficult to assess this at the pre-programme assessment stage, but when carrying out the post discharge contact via telephone, generally the specialist nurse using ‘an element of clinical intuition’ could identify if there were problems. Once the patient attended for pre-programme assessment with the cardiac rehabilitation team, which is usually two to four weeks post PCI, there were a range of validated tools that are used to assess social and psychological status.

The third question addressed was:

• How do patients voice their concerns?

It was generally felt among the group that there was already a range of ways in which patients could voice their concerns within ABHB, examples of which include:

• At ward level, ABHB have a patient satisfaction tool, as part of the Fundamentals of Care, which is routinely used
- The ABHB wide ‘Putting it Right’ complaints procedure
- Within cardiac rehabilitation, satisfaction questionnaires, patient focus groups, patient stories and opportunistic suggestions boxes are used

2nd Patient Focus Group

The second focus group was carried out at the end of the project and took place on Wednesday 30th January 2013. The aim was to find out if the patient experience had improved as a result of changes being made along the patients’ PCI pathway. The selection process differed slightly from the first focus group in that the cardiac rehabilitation leads from each of the four sites across ABHB were approached by the project team leads and asked to provide details of patients who had completed the cardiac rehabilitation programme following their PCI and had expressed an interest in attending a focus group to talk about their experience. Exclusion criteria were those who did not attend the complete programme. A letter was sent explaining the purpose of the focus group along with a return stamped addressed envelope for replies to confirm attendance. In the same way as the first focus group, participants were assured of the confidentiality of the data received and written consent was obtained (see Appendix 2).

Eight patients accepted the invitation to the second focus group of which seven were male and one female.

The second focus group was facilitated by a nursing colleague of the project team lead who had experience of facilitating focus groups but who had no prior involvement with the participants’ ‘PCI journey’. As with the first group, the project leads acted as scribes. The format consisted of one large group. Apart from these small changes, the approaches used for the second focus group were similar to the first focus group.

The main themes that came out of the second focus group (the full results of the second focus group can be found in Appendix 9) were that:
- Post discharge care was equitable
- The information that was given was clear and consistent
- Patient experience was good during and following PCI
- Patients felt supported post discharge

These themes are reflected in the following comments:

- ‘Attending cardiac rehabilitation gave me confidence’
- ‘Increased my knowledge about what I could and should not do’
- ‘Attending cardiac rehabilitation improved my quality of life’
- ‘Staff were friendly and approachable and I enjoyed meeting people in the same boat as me’
- ‘They are there at all times if I had any concerns or worries’
- ‘I was very impressed’

In the main participants agreed that ‘cardiac rehabilitation does a great job’ and it should be available to everyone. However some additional themes emerged which suggested areas for further improvement such as:
• Addressing the ‘gap in time’ between patients being discharged from hospital and the contact from cardiac rehabilitation
• Addressing the long wait for cardiology follow up post procedure

Audit of patients who underwent the PCI procedure
Audit data was used to determine how many patients underwent a PCI procedure at the Royal Gwent Hospital. The data was obtained from the ABHB informatics department and continues to be provided on a monthly basis to the project lead.

1st June 2011 – 30th November 2011 (Before the project commenced)

<table>
<thead>
<tr>
<th>Number of patients who received PCI</th>
<th>Number of patients referred to Cardiac Rehabilitation</th>
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<tr>
<td>220</td>
<td>33 (15%)</td>
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1st April 2012 – 31st December 2012 (The project duration)

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<thead>
<tr>
<th>Number of patients who received PCI</th>
<th>Number of patients referred to Cardiac Rehabilitation</th>
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<tr>
<td>403</td>
<td>340 (84%)</td>
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Before the project commenced, the referral rate for patients following elective PCI was low (15%). This was because there was no robust referral system in place and not all ABHB cardiac rehabilitation sites could offer a service to patients following elective PCI. Due to the changes made as a result of the project, the referral rate has dramatically improved.
Discussion

Patient focus groups

Using patient focus groups as a means to look at patient experience was a new concept for the project team members. The benefit of using focus groups was that by using a semi-structured series of open questions, all participants in both the first and second patient focus groups had an opportunity to discuss their experience of post discharge care post PCI. It enabled the project team to get individuals’ experiences and insights and proved an effective way of obtaining patients’ thoughts with a good level of detail.

The first focus group highlighted that patients were generally dissatisfied with their care following discharge post PCI and they indicated that this hindered their physical, psychological and emotional recovery. The second group’s experiences were very different and as a result of being offered and accepting an invitation to cardiac rehabilitation, the patients were generally satisfied with their post discharge care once they had contact from a cardiac rehabilitation health professional and attended a cardiac rehabilitation programme and also appeared to recover more quickly from their PCI.

Stakeholder group meetings

Using the stakeholder group meetings to move the project forward enabled progress to be made in a timely way. Engaging with all the people involved in the PCI patient’s journey at the start of the project enabled actions to be implemented quickly. This was possible because all the stakeholders involved were enabled to discuss and share their values and beliefs and to improve the patient experience. At the first stakeholder group meeting the results of the first patient focus group were discussed and analysed and as a result, a series of questions were formulated. Both the mission statement and series of questions were used to structure the remaining three stakeholder group meetings. Using these questions and finding solutions to these informed the action plan and the cardiac rehabilitation teams used these to examine the existing cardiac rehabilitation programmes to increase capacity to be able to take referrals for patients post PCI.

The first issue was looking at the length of the cardiac rehabilitation programme which was traditionally six to eight weeks. The question asked by the stakeholders was; is this length of time necessary for all patients? There were some concerns, initially, about the impact this would have on the patient. These concerns proved to be unfounded and there has been little evidence that reducing the programme length to five weeks has had any impact on patients. A ‘blanket approach’ of a five week programme was not applied to all. An individual approach was taken based on the multi-disciplinary team assessment and discussion with the patient and those who required more sessions because their progress was slower were offered a longer programme.

What became evident early on in the project was that the extra referrals were having an impact on increasing the waiting list for all patients wishing to attend cardiac rehabilitation in two of the four ABHB cardiac rehabilitation sites. As a result, the cardiac rehabilitation teams now offer patients who are keen to attend a cardiac rehabilitation programme a place anywhere within ABHB if the waiting time is shorter than their local area and they are prepared to travel.

The cardiac rehabilitation teams also looked at their pre programme assessment process which in some areas was prolonged and onerous. A reduced initial assessment process was introduced and an emphasis on continuous assessment throughout the patient’s cardiac rehabilitation journey was
adopted. This has reduced the amount of time needed for a pre programme assessment therefore increasing capacity.

There are many other forms of cardiac rehabilitation other than attending a centre based programme that are available but have not been routinely offered to patients. This has been explored and discussed with the cardiac rehabilitation teams and now all forms of cardiac rehabilitation are offered at the pre programme assessment stage.

**Audit of patients undergoing PCI procedure**

Collecting audit data to demonstrate how many patients underwent PCI and were referred to cardiac rehabilitation proved invaluable because the project team were able to demonstrate an increase in the number of patients being referred and then attending cardiac rehabilitation programmes. Added to this were the findings from the second focus group which demonstrated that patients were more satisfied with the support and care they received following discharge from hospital. At the start of the project, only 15% patients were referred to cardiac rehabilitation, there was no robust referral process and patients were not routinely referred as part of the discharge plan. Added to this, not all cardiac rehabilitation teams offered a cardiac rehabilitation service to patients post PCI which was well known amongst our ward based nurse colleagues. It was confusing for the ward based teams to know which areas within ABHB provided cardiac rehabilitation for patients post PCI so as a consequence very few patients were referred.

At the end of the project 84% of patients who had been discharged post PCI were referred to cardiac rehabilitation. This was possible because of very simple procedures put into place by the stakeholders group. The first change was adding a tick box to the PCI pathway which simply said:

‘Referred to cardiac rehabilitation  yes / no’

The second change was made by the teams on the PCI ward who photocopied the admission book, which contained a list of all the patients who had been admitted and undergone the PCI procedure. This was completed on a daily basis and then faxed to the cardiac rehabilitation team, to ensure that all patients undergoing PCI were known to the appropriate team in the community.

The third change involved asking the ABHB informatics department to provide data to the project lead outlining all patients who had undergone PCI on a monthly basis. This was then circulated to the ABHB cardiac rehabilitation team leads to enable cross referencing with the faxed referrals to ensure that all PCI patients had been referred.

**Achievements**

The stakeholders, by listening to the patients, have improved the pathway for post PCI by:

- Developing a robust referral process to ensure that all patients post procedure are offered timely post discharge support. This has resulted in 84% of patients being referred to cardiac rehabilitation post PCI
- the ABHB cardiac rehabilitation programmes have been adapted to increase capacity to take patients post PCI including:
  - Offering patients who are keen to attend a cardiac rehabilitation programme a place anywhere within ABHB if the waiting time is shorter than their local area and they are prepared to travel
Reduced programme length
Altered pre-programme assessment process
Offering patients other forms of cardiac rehabilitation such as the Heart Manual, Home Programmes or fast tracking patients to the National Exercise Referral Schemes

- Review of post discharge information which has been taken forward at a network level to provide consistent information for patients post procedure across South Wales
- Support given by the project team to other teams looking at practice development

All of this was achieved by the stakeholders working together and listening to patients, without any additional financial resources.

Conclusion
Patients are in a very strong position to evaluate aspects of service provision as active recipients of care. If nurses are to succeed in providing better quality services it is vital to understand and address the patient’s experience in order to design and deliver services. This was achieved using focus groups which allowed a flexible and direct means to ensure patients were enabled to share their experiences and so contribute to the development of PCI services. The findings reflect that the cardiac rehabilitation service at the start of the project was failing to meet the needs of patients following PCI, but with the introduction of new and innovative ways of working, with very little financial resource, the stakeholders group have been able to ensure many more patients are able to access cardiac rehabilitation services post the PCI procedure.

Alongside patients’ views, engaging with the key stakeholders was essential to review the service in line with the issues identified and the relevant literature, as outlined in the introduction. This highlighted that establishing a robust referral pathway is vital to ensuring that all those who are eligible to benefit from cardiac rehabilitation are given the opportunity to participate. It is well known and reported in the National Audit of Cardiac Rehabilitation (British Heart Foundation, 2012) that cardiac rehabilitation services within Wales are under resourced and within this context, healthcare professionals need to be deployed in the most cost effective way and provide new, innovative and cost efficient services. In the current economic and socio-political climate, optimising the management of those with coronary heart disease is essential. Despite limited resources, the ABHB cardiac rehabilitation service is keen to utilise what is currently available, making efficient and effective choices to maximise outcomes taking into consideration the patient’s perspective.
References


Appendix 1- Invitation to the patient focus group

Dear

My name is Sue Francombe and I am the CHD Lead Nurse for the Torfaen Locality. We are contacting you because the ABHB Cardiac Rehabilitation Service is currently looking at what services we provide and how we can improve. It is important to listen to the people who access our services to tell us their views of the cardiac rehabilitation service’s strengths, weaknesses and gaps to plan future development and as part of that process we are inviting you to help us.

Why you have been selected?

As you have been discharged from the Royal Gwent Hospital following PCI (stent), you may not have been contacted by the cardiac rehabilitation teams therefore I would like to invite you to come along to a one off focus group meeting.

What you would be asked to do

You will be one of a group of 7 -10 people. You will be asked to talk about a few different things in relation to your recent treatment (stent):

- your knowledge before you had the stent put in
- what happened to you on the day
- what happened after you went home

To make sure that everyone has a chance to tell us their story, the group will be supported by a colleague, who is an impartial individual used to helping focus groups. Our colleague is not involved with the cardiac rehabilitation service so will make sure that you focus on what is important to you.

Where it will be held and how long it will take

The meeting will take place on Wednesday 29th February 2012 at Boardroom 3, Parkway Hotel, Cwmbran from 10am – 1pm. There will be tea and coffee provided mid morning and a hot lunch provided at 1pm.

What will be done with the information you give us.

We will not be identifying any of the people in the focus group by name and what you tell us will only be used for the purpose of the review. To ensure an accurate record of events, there will be someone taking notes to record discussions but any reference to comments will be anonymous. The results will be used to improve the current service. You will also be informed of the outcome of the research on completion.

Thank you for agreeing to attend the focus group, if you would like to take part we would be grateful if you could sign the enclosed reply slip and return it in the stamped addressed envelope provided. If you require additional information, please do not hesitate to contact me on 01495 768713.

Yours sincerely

Sue Francombe, CHD Lead Nurse (Torfaen Locality)
Appendix 2- Reply slip and patient permission form

Name of Patient  ...........................................................................................................

Name of Researcher  ....................................................................................................

Statement by patient
I confirm that I agree to take part in a focus group for the cardiac rehabilitation service
Details of the focus group have been explained to me by the above-named researcher.
I am willing to take part but I understand that I can stop participating in the focus group at any time.

Signed.........................................................
Date  ..............

Statement by Researcher.

I have explained the nature and the purpose of the study to the above-named patient and believe that the patient understands what the focus group involves.

Signed.........................................................
Date.................
Appendix 3- Programme for the first patient focus group

FOCUS GROUP ON WEDNESDAY 29TH FEBRUARY 2012 AT BOARDROOM 3, PARKWAY HOTEL, CWMBRAN

PLAN OF THE DAY
10am – Introductions, ground rules and housekeeping
  Ice breaker – 2 truths and 1 lie (10 minutes)

10.15am – Patient stories, how did they discover they had a problem, what did they do about it and what happened.

11.00am – 11.20am – Coffee

11.20am – 12.20pm – During course of treatment, what stood out for them. Did they get written information?

12.20pm – 12.40pm – Sue to give overview of what could be available and is available in some areas of Wales and ask them how that would fit their needs.

12.40pm – 12.50pm – Discuss how they would like feedback on the outcome of the focus group, by letter or phone call

12.50pm – 1pm – Draw focus group to a close

1pm – 2pm - Lunch and Finish.

2pm – 3pm – Sue, Angela and Jane to discuss the focus group and clarify Outcomes.
Appendix 4- Questions used within the patient focus group

Questions to provide structure to the focus group and to promote discussion:

- How did you find out you had a problem?
- What happened next?
- What happened then?
- When you had your first stent what information were you given?
- How many were told by a Doctor that they were having or needed a stent?
- How useful were the post discharge care leaflets?
- What were you told about what you could / could not do following the procedure?
- How would you rate the information you were given?
- How safe and confident did you feel after being discharged?
- How would you rate how you felt supported post discharge? Zero to three
- Not supported, three to five reasonably supported
- Discuss what you would have liked to have received post procedure.
- Any additional comments?
Appendix 5- Findings from the patient focus group

PCI PATIENT FOCUS GROUP REPORT  
Wednesday 29th February 2012  
Venue: Parkway Hotel, Cwmbran

Aims  
The aim of the patient focus group was to find out what patients following PCI thought of the post discharge care and follow up.

Method  
An invitation letter and a permission form (see Appendix 1) were sent out to 30 patients following PCI procedure. The patients were randomly selected from across the project team’s area. 11 people accepted the invitation and stated they would like to take part in the focus group of which 9 people were male and 2 were female. 10 people attended (8 male and 2 female) of which 9 people lived in the Torfaen area and 1 person lived in the Caerphilly Locality. The outline of the day was explained to the group (see Appendix 2) which commenced at 10am and finished at 1pm with lunch. The format consisted of small working groups of 3, 3 and 4 people per group which then fed into the larger group.

Responses  
How did you find out you had a problem?  
- 3 people experienced shortness of breath (no chest pain) attended GP who referred to cardiologist.  
- 5 people experienced chest discomfort which was triggered by physical activity attended GP who referred to cardiologist.  
- 2 people experienced chest discomfort – rang 999 and admitted to A and E. Diagnosis myocardial infarction (MI)

What happened next?  
5 people did not act immediately, ignored symptoms because they thought it was:  
- Indigestion  
- Would go away  
- Ignored the symptoms because ‘it was my fault because I am a smoker’ and thought I would be judged  
- It’s my age!

What happened then?  
- 8 people referred by their GP to the hospital for further investigations  
- 2 people rang 999 and were treated as an emergency

9 people had a family history of heart disease and ‘felt the same was happening’ to them. 5 people sought help because of pressure from their family
When you had your first stent what information were you given?
- 1 person had his 1st stent 14 years ago and felt it was a ‘good experience’ he stated he was a ‘research subject’ but did not recall being told why he needed a stent
- 6 people felt they received excellent information from the nurses and doctors on Bill Hobbs ward. They all received verbal information accompanied by written information
- 1 person would have liked more explanation during the procedure. He was concerned about the burning in his arm felt like his ‘arm was exploding’ due to the dye or anaesthetic – no one explained.

How many were told by a Doctor that they were having or needed a stent?
- 10 people said they were told by a doctor they needed stents
- 4 people required more that 1 stent and felt that the likelihood of this happening was not explained pre procedure
- 6 people had the opportunity to discuss the procedure with the doctor afterwards
- 4 people did not have the opportunity to discuss the procedure and would have liked this opportunity

How useful were the post discharge care leaflets?
- 5 people said the leaflets were ‘ok’, they did not provide any more information than the verbal information that was given.
- 5 people thought the leaflets were excellent

What were you told about what you could / could not do following the procedure?
- 6 people were given advice not to drive for 1 week following procedure, 2 people had an MI so were told not to drive for 4 weeks
- 6 people were told not to shower for 24 hours post procedure
- 2 were given advice on lifestyle changes post procedure (MI patients) and the remaining 8 people were not given lifestyle advice
- 10 people were advised if they had any worries or concerns to contact the hospital if it was within 24 hours of being discharged and then after 24 hours to contact GP. The hospital number was only available during office hours and 8 people would have liked to have had a 24 hour / 7 days a week advice line

How would you rate the information you were given?
- 2 people said they had all the information they required
- 8 people said they did not have all the information they required

How safe and confident did you feel after being discharged?
- 9 people said the ‘back up care’ needs to be addressed, 1 person had great difficulty coping post discharge and had no after care at all
- 5 people have had no follow up with the cardiologist following procedure (now waiting 5-9 months) even though they were told they would have a follow up appointment 3 months post procedure. 1 person rang the booking centre to query why he had not had an appointment and was told there was a ‘long wait’
Comments made by patients in the focus group include:
- I had great difficulty in dealing with the emotional side, all the focus before I was discharged was on the physical recovery
- I was worried that the stent would move – could not talk to anyone about this worry
- No aftercare / it’s in decline
- I contacted NHS direct who were no help at all
- No one available after ‘office hours’ on the Bill Hobbs ward when I needed to contact them for more information

The group were asked to rate how they felt supported post discharge.
- 7 people rated 0 – 3 (not supported / moderately supported)
- 3 people rated 3 – 5 (reasonably to well supported)

Cardiac Rehabilitation
- 3 people had attended the Phase III cardiac rehabilitation programme with 1 person attending 1 month following stent and 2 people attended 2-3 months following procedure after being asked by the cardiologist if they would like to be referred
- 3 people had contact from a cardiac rehabilitation nurse soon after the procedure and had an assessment with a nurse and implementation of the heart manual
- 4 people had no contact from cardiac rehabilitation at all

Discuss what you would have liked to have received post procedure
- 10 people would have liked a telephone information line 24 hours 7 days a week. They felt that contacting the GP, out of hours and NHS direct were ‘no help at all’
- 6 people would have liked the opportunity to have received the heart manual
- 8 people would have liked to have had early follow up in a nurse led clinic
- 6 people would have liked the opportunity to attend Phase III cardiac rehabilitation programme. 2 people had returned to work so felt that they would have liked to attend the Phase III programme but this was not available outside of ‘office hours’

Individual comments from patients
- JP (Female) feels very angry about the lack of post discharge care. Needed to call the ward because she developed a rash the same evening she was discharged home, no one was available on the day ward so she rang the ‘GP out of hours’ service who told her to take Piriton. Would have liked to have talked this over with the ward staff
- AB (Female) feels very anxious and frightened following her stent
- RJ (Male) Having difficulty coming to terms with what has happened to him, returned to work 1 week post procedure. Feels there is a lack of understanding from employers because the procedure is a ‘day case’
- GL (Male) feels fine, was contacted a few weeks post procedure by cardiac rehab and had a nurse assessment which answered all this questions and queries and felt the heart manual was very helpful
- BJ (Male) feels fine, was contacted by cardiac rehab 1 week following stent and had a nurse assessment and the heart manual, which were useful. Would have liked the opportunity to attend Phase III cardiac rehabilitation programme. Now returned to work as a self employed gardener. He still has had no follow up from Cardiologist 6 months post procedure
• CR (Male) feels ‘ok’, had nurse assessment and the heart manual 3 weeks post procedure which were good, still has not been followed up by Cardiologist 5 months post procedure

• MP (Male) – had MI and 11 stents, attended Phase III cardiac rehabilitation programme 4 weeks post procedure, he stated that is confidence was 2 (low) pre programme and was 9 (high) post programme

• MW (Male) – attended Phase III cardiac rehabilitation programme 1 month following procedure, felt he had a ‘good experience’ but still has had no follow up from the Cardiologist 9 months post procedure

• BT (Male) attended Phase III cardiac rehabilitation programme after seeing Dr Javed in clinic post procedure who suggested attending cardiac rehabilitation which he did and felt it ‘helped tremendously’

• BB (Male) had 1st stent 14 years ago which was a good experience, additional 5 stents in December 2011, information given verbally by nurses but no leaflets given, no follow up care has been offered

Final general comments from patients

• Post discharge care was inequitable – why should some people be offered cardiac rehabilitation and others are not?

• Care is disjointed and there is a distinct lack of communication

• There is a lack of post discharge care and support

• I feel glad that I had the opportunity to attend the focus group and say how I feel

• It’s good that ‘someone’ is doing something about it and we will be informed of the outcome
### Appendix 6- Action Plan from PCI Stakeholders Meeting On Wednesday 16<sup>TH</sup> MAY 2012

<table>
<thead>
<tr>
<th>Objective</th>
<th>Action required</th>
<th>Person responsible</th>
<th>By when</th>
<th>Comments</th>
</tr>
</thead>
</table>
| To improve the information on the post PCI procedure leaflet | • To look at the post PCI leaflet in Morriston and UHW  
• Add in the BHF website address  
• To be dated and referenced  
• Text – Font needs to be bigger  
• To liaise with CCU at RGH to provide contact number after ‘office hours’  
• To add telephone number of CCU at RGH instead of medical registrar on call  
• To add to the leaflet for care 24 hours following procedure | WG | 30<sup>th</sup> June 2012 | |
<p>| To ensure consistent information is given to patients at NHH following angiogram in the absence of cardiac rehab nurses. | To liaise with CCU at NHH | HT | 30th June 2012 | |
| To increase number of referrals to cardiac rehabilitation following NSTEMI and PCI | To add tick box to PCI pathway | WG | 30&lt;sup&gt;th&lt;/sup&gt; June 2012 | |
| To improve information given to patients pre and post PCI following NSTEMI | To invite JT, RB and AB to next stakeholders meeting in July 2012 | SF | 30&lt;sup&gt;th&lt;/sup&gt; May 2012 | |</p>
<table>
<thead>
<tr>
<th>Task</th>
<th>Follow-up Plan</th>
<th>Contact</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>To explore the possibility of using E-Referrals for ward staff to refer patients to Cardiac Rehabilitation</td>
<td>To discuss with JH and Informatics</td>
<td>RB</td>
<td>30&lt;sup&gt;th&lt;/sup&gt; June 2012</td>
</tr>
<tr>
<td>To streamline the referral process from RGH to each Cardiac Rehabilitation site</td>
<td>To provide the wards with postcodes for each site</td>
<td>SF</td>
<td>30&lt;sup&gt;th&lt;/sup&gt; May 2012</td>
</tr>
<tr>
<td>To organise the next PCI stakeholders meeting</td>
<td>To set date, time and venue</td>
<td>SF</td>
<td>30&lt;sup&gt;th&lt;/sup&gt; May 2012</td>
</tr>
<tr>
<td></td>
<td>To provide agenda</td>
<td></td>
<td>30&lt;sup&gt;th&lt;/sup&gt; June 2012</td>
</tr>
<tr>
<td>To streamline and improve the STEMI pathway for patients admitted to UHW</td>
<td>To discuss at Network level</td>
<td>JA</td>
<td>TBC</td>
</tr>
</tbody>
</table>
### Appendix 7-Results of the process mapping exercise

#### Acute Patient Pathway

**ABHB South**

<table>
<thead>
<tr>
<th>Referral Source</th>
<th>Information given Pre procedure</th>
<th>Procedure</th>
<th>Admission</th>
<th>Post Procedure</th>
<th>Referral to Cardiac Rehabilitation (CR)</th>
<th>Post discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following an emergency admission with:</td>
<td></td>
<td>Rescue PCI</td>
<td>ward</td>
<td>Return to cardiac Ward 24 – 48 hrs of procedure</td>
<td>CR form completed</td>
<td>Referral to Nurse Led Clinic</td>
</tr>
<tr>
<td>NSTEMI to RGH</td>
<td>Verbal explanation and ? Leaflets</td>
<td>British Heart Foundation &amp; Local CR Leaflet</td>
<td>Cardiac Rehab sometimes</td>
<td>Phone Call from ward to CR team Ward Visit by CR nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEMI from University Hospital of Wales (UHW)</td>
<td>Verbal explanation of procedure &amp; diagnosis</td>
<td>Primary PCI</td>
<td>? Leaflets</td>
<td>Referral to local cardiac rehab centre within 2 days of discharge</td>
<td>? follow up at UHW ? follow up by local DGH</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 7- Results of the process mapping exercise

**Elective PCI Patient Pathway**

<table>
<thead>
<tr>
<th>Referral Source</th>
<th>Information given Pre procedure</th>
<th>Procedure</th>
<th>Admission</th>
<th>Post Procedure</th>
<th>Post Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic intervention list</td>
<td>BHF Leaflet Pre Assessment</td>
<td>PCI</td>
<td>Ward</td>
<td>Verbal info on what has been done</td>
<td>Discharged to Primary Care</td>
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<tr>
<td>Clinic Cardioversion</td>
<td>Leaflet on PCI</td>
<td></td>
<td></td>
<td>Bill Hobbs leaflet post procedure</td>
<td>Referral to Nurse Led Clinic</td>
</tr>
<tr>
<td>Following Angiogram</td>
<td>Consent verbal</td>
<td></td>
<td></td>
<td></td>
<td>Clinic Appointment with Referring consultant</td>
</tr>
<tr>
<td>Waiting List</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cardiac rehab referral</td>
</tr>
</tbody>
</table>
Appendix 7

ELECTIVE AND ACUTE PCI PATIENT PATHWAY
ABHB NORTH

999 Call → Elective Cardiologist refers to angina list → PAC Clinic → Angiogram → Medical Management → Consultant email
PCI RGH
Revasc UHW
Complex Management

PAC Clinic
- Pre Assessment
- Advice & Info about procedure
- Bloods
- Date for Angiogram
- Any issues needing discussion with Consultants

Angiogram
- Pre & Post angiogram recovery
- Advice sheet re wound care do’s & don’ts
- Contact numbers (emergency)
- Sometimes referral to Cardiac Rehab if staff remember or dependant on staff members

Cardiac Rehab nurse visits unit x1 week, pick up referrals anyone diagnosed with CAD, potential problem staff resources ?? to be led by CCU staff

GP referrals
Chest pains (NHH area patients) → Initiative clinics County (lost to system may re appear) → Angio RGH.....

NSTEACS → CCU
4/2

Cardiac Rehab nurse visits ward pick up referral and follow patient pathway & enrol onto phase III timeline & achieving standards & address in All Gwent Cardiac Rehab Service Mapping
Appendix 8- Discharge leaflet for people following a PCI procedure

Cardiac Rehabilitation following your Primary Angioplasty or stent insertion (PCI)
**Primary Angioplasty**
Following your heart attack you had an emergency procedure called Primary Angioplasty. This is the preferred treatment to re-open a coronary artery and in almost all primary angioplasties, a stent is inserted into the widened artery.

**Before you leave hospital**
Before you leave hospital you should have been given a discharge letter for you to give to your GP. This letter has details of your diagnosis, the treatment you had while you were in hospital and the medication you will need to take. You should have also been given the British Heart Foundation booklet – *Primary angioplasty for a heart attack* ([http://www.bhf.org.uk/publications/view-publication.aspx?ps=1001804](http://www.bhf.org.uk/publications/view-publication.aspx?ps=1001804)). This booklet will explain what happened whilst you were in hospital and provide advice on activity and lifestyle during the first few weeks at home. You should have also been referred to the local **Cardiac Rehabilitation Service** where you live.

**Cardiac Rehabilitation**
Cardiac Rehabilitation aims to help you in your recovery and get you back to as full a life as quickly as possible. It also aims to promote your health and keep you well. Everyone’s needs are different and the service you are offered will be based on the best option for you and what is available locally. Most cardiac rehabilitation services offer an individual structured programme including an exercise programme, education, and psychological support.

Once your local Cardiac Rehabilitation service receives your details from the hospital where you were admitted, a team member will aim to contact you by telephone within 7 working days of you being discharged from hospital. The purpose of the telephone call is to provide you with any advice and support you might need, to answer any questions you may have about your recovery and invite you for an assessment for an individualised structured programme.

If you have not been contacted by your local cardiac rehabilitation service within 7 to 14 working days of being discharged then there may have been a delay with the referral and you should telephone your local cardiac rehabilitation centre (telephone numbers are on the back page of this leaflet).

**Further information**
The British Heart Foundation produces a number of patient information booklets which can be ordered from them free of charge or downloaded from their website.

**British Heart Foundation**  [www.bhf.org.uk](http://www.bhf.org.uk)
Greater London House,  
180 Hampstead Road,  
London, NW1 7AW  
Phone: 020 7554 0000  Fax: 020 7554 0100
CARDIAC REHABILITATION CENTRES

<table>
<thead>
<tr>
<th>Mid and West Wales</th>
<th>South and East Wales</th>
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<tbody>
<tr>
<td>Morriston Hospital</td>
<td>County Hospital, Pontypool</td>
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<td>Neath Port Talbot Hospital</td>
<td>Nevill Hall Hospital</td>
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<tr>
<td>Princess of Wales Hospital</td>
<td>Royal Gwent Hospital</td>
</tr>
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<td>Bronglais Hospital</td>
<td>Ysbyty Ystrad Fawr Hospital</td>
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<td>Glangwili Hospital</td>
<td>University Hospital of Wales</td>
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<tr>
<td>Ext 3917</td>
<td>Prince Charles Hospital</td>
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<td>Prince Phillip Hospital</td>
<td>Royal Glamorgan Hospital</td>
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<tr>
<td>Pembrokshey</td>
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<td>North Powys</td>
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01792 703191                            01495 768713
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01970 635327                            01443 802265
01267 235151                            029 20743384
01554 783619                            01685 728304
01437 774262                            01443 443386
01982 554302                            |
Appendix 9- Findings from second patient focus group

FOUNDATIONS OF NURSING STUDIES  PCI PATIENT FOCUS GROUP
Wednesday 30th January 2013
Venue: Parkway Hotel, Cwmbran

Introduction
A successful application to the Foundations of Nursing Studies, (FoNS) enabled the ABHB cardiac rehabilitation team to explore the patient experience before, during and after PCI. This was possible because of the small bursary which provided funding for venues, travel expenses for participants and refreshments to hold two PCI patient focus groups.

The first focus group was held at the start of the project one year ago and the aim was to find out what patients thought about their experience before, during and after Percutaneous Coronary Intervention (PCI). The results of the first focus group can be found in Appendix 1.

The second focus group was held at the end of the project (30th January 2013) and the aim was to find out if the patients experience had improved in light of changes made by the project group along the PCI patient pathway.

This section will outline the patient responses from the second patient focus group.

Method
The project leads sent an open invitation to all patients attending Cardiac Rehabilitation programmes across ABHB during the months of December 2012 and January 2013. The open invitation was sent to the Cardiac Rehabilitation specialist nurses leading each programme for discussion with their patients about the aim and the purpose of the focus group. This method was used to reduce postage costs and the project leads anticipated it would improve acceptance rates of people wanting to attend.

This approach resulted in 5 people stating they wished to attend.

To increase the number of people in the focus group, an invitation letter (see Appendix 2) was sent out to 15 patients who had completed cardiac rehabilitation across ABHB within the last 4-6 months and this resulted in a further 5 people expressing an interest and agreeing to be participants in a focus group.

8 people attended the focus group (7 male and 1 female). The female who attended was the partner of a patient and had expressed an interest in attending so that she could give her experience as a carer.

The consent forms were completed on the arrival of each participant (see Appendix 3) and the outline of the day was explained to the group (see Appendix 4). All 8 people agreed to participate in the group. The project leads used the same format as the 1st focus group to compare the results.

Responses
How did you find out you had a problem and what happened next?  
(7 patients and 1 carer)

7 patient stories

**Mike (66 year old Male)**
Mike had an MI five years ago and at that time chose not to attend cardiac rehabilitation. On this occasion he developed chest pain and knew straight away he was having a ‘heart attack’ because the symptoms were similar to his first MI. He told his wife to ring 999 and a paramedic arrived within 10 minutes. He was taken to A and E at the Royal Gwent Hospital where he was told he had had ‘a heart attack’. He had to wait a few hours for a bed but was then admitted to the Bill Hobbs ward where he had ‘excellent treatment’. He had an angiogram and 1 stent. He was discharged home the next day.

Felt he had a good experience overall.

**Derek (69 year old Male)**
Derek attended the General Practitioner (GP) surgery because he was having chest pain on exertion, the GP referred him to a cardiologist who organised ‘tests’ and he was told the tests were ‘ok’.

He was still having chest pain and got concerned so presented at A and E at the Royal Gwent Hospital where he was admitted to the Bill Hobbs ward for an angiogram. He was shocked to be told he had ‘blocked arteries’ when he had been previously told his tests were ok. He had a stent inserted. He describes his care as being excellent but still feels shocked that he ‘had a problem’ and is having difficulty coming to terms with that.

**Bryn (60 year old Male)**
Bryn was a fire fighter and classed himself as being very fit. He had chest pain whilst walking the dog so attended the GP surgery, where the GP told him it was ‘probably angina’ and said he would refer him to a cardiologist.

The day after seeing the GP he ‘did not feel well’ so presented at A and E at the Royal Gwent Hospital, he was admitted to the Bill Hobbs ward where he proceeded to an angiogram and had 1 stent.

Felt he had excellent care.

**John (76 year old Male)**
John had been fit and well, never been in hospital before. Whilst watching TV one evening developed central chest pain. Thought it was indigestion so took some Gaviscon with no effect, the chest pain got worse so he went to have a ‘lie down’. He still thought it was indigestion. He rang the GP who told him to take Aspirin and the GP called the ambulance. Paramedics arrived within 10 minutes and John felt he had excellent care, he was given morphine which made him feel ‘high’ but it took a further 2 hours before the ambulance arrived to take him to hospital. He arrived at A and E at the Royal Gwent Hospital at 10pm. He was then moved to the corridor where there were other people waiting for beds and at 4.30am he was still in the corridor. He
was told he had had a ‘heart attack’ but the cardiologist told him he ‘would be done straight away’. He was then moved to the Bill Hobbs Ward to await an angiogram. The procedure was explained to him by the cardiologist. When he was having his angiogram the procedure was explained to him and he was shown on the ‘TV screen’ the problem that caused his heart attack. He remained an inpatient for 4 days.

Roger (74 year old Male)
Roger was walking in town on a Bank Holiday Monday and experienced some chest pain accompanied by feeling unwell, he thought he was having a ‘heart attack’ so drove to A and E at the Royal Gwent Hospital. He knew he was having a ‘heart attack’ because he previously had an MI 17 years ago whilst he was on holiday in France. He was admitted to a ward from A and E. He was delayed from having his stents for 1 week but no one told him the reasons for this, he said the consultant came to see him daily with a ‘different reason’ why it could not go ahead. He now has 6 stents in total.

Roger said that the treatment he had was good overall but he felt he was being lied to about the reasons he had to wait for his stents and he would have appreciated ‘being told the truth’. The treatment he had was comparable to the treatment he had at the time of his MI 17 years ago whilst in France.

Simon (48 year old Male)
Simon stated that he was never ill, he had been taken ‘tablets for blood pressure’ which had been prescribed by the GP a few months before his heart attack. Whilst gardening on a Saturday morning he developed severe breathlessness, he thought he had bad indigestion so took an aspirin. His symptoms worsened and were accompanied by nausea, vomiting and he felt cold and clammy. His wife rang 999, an ambulance crew arrived but they were not ‘a cardiac crew’ so Simon was taken to A and E at the Royal Gwent Hospital. On arrival at A and E, there happened to be ‘cardiac crew’ there so after 10 minutes he was taken in that ambulance to the University Hospital of Wales (UHW). He describes the Paramedics as being excellent whilst being transported to UHW. On arriving at UHW he had his angiogram and stent within 15 minutes.

Felt he had good care but wonders if the outcome would have be different if the ‘Cardiac Ambulance Crew’ had not been at A and E at the Royal Gwent Hospital to take him to UHW.

Carl (47 year old Male)
Carl had some throat discomfort which he thought was a throat infection so he went to see his GP. His GP said it was ‘probably anxiety’. After a few days the symptoms persisted so he went to see his GP again who referred him to the Chest Pain Clinic at County Hospital. He attended the Chest Pain Clinic after 1 month of seeing his GP where he ‘went on the treadmill’. He was told that it was a Positive result and he had angina and would be referred quite quickly for an angiogram. He was told in clinic he needed to take some medication and his GP would prescribe them and to make an appointment to see his GP in 1 week. He felt that this medication should have been prescribed straight away if he needed to take it and he felt quite anxious waiting the week to start this medication. He had his angiogram and stent 1 month later.

What information were you given about your stent?
• 5 were told they may experience discomfort or have a cold feeling or flushing during the procedure
• 1 was not told he would experience pain during the procedure and thought he was having another ‘heart attack’
• 1 felt that because he had stents before there was an assumption he understood the procedure

All 7 were told before they had their angiogram if a stent was required that procedure would be done ‘there and then’.

**Were you given written information about your stent?**
- 6 were given leaflets or booklets explaining the procedure which were useful
- 1 could not recall having any written information

All 7 stated they had good verbal and/or written information overall.

**How useful was the post discharge care information you received?**
- 6 patients were told they would be referred to cardiac rehabilitation before discharge either by the cardiologist or ward staff
- 1 patient asked the doctor about cardiac rehabilitation who said ‘he did not require it because he was fit and could get back to normal within a week’

All 7 patients stated that there was no explanation post procedure about what was done and no one discussed complications they may experience when they went home.

**What were you told about what you could / could not do following the procedure?**
- 6 were given advice regarding driving
- 6 were given information booklets regarding changing lifestyle
- 1 could not recall ‘being told anything’ whilst in hospital

**Comments**
Carl told the nurse before he was discharged that he was going home to have a few pints and a curry! The nurse told him that the stent was ‘not a cure’ and he needed to make healthy lifestyle changes. Carl had been under the impression that the stent had ‘cured’ him.

Bryn asked the doctor for advice on exercise and was told he could get ‘back to normal’ in 1 week, it was not until he attended cardiac rehabilitation he realised this information was inaccurate.

John was told to take gentle exercise, he did not understand what this meant.

Simon saw a cardiac rehabilitation nurse before being discharged from UHW but could not ‘take on board’ everything she said.

Those 6 who received verbal information especially about activity and exercise felt the information was vague with ‘gentle exercise’ and ‘build up to usual lifestyle in moderation’ being used, which did not mean anything.
On a scale of 1 – 10 how confident did you feel about going home?

- No people stated 0 – 3 not confident about going home.
- 5 people stated they felt 3 – 5 reasonably confident about going home.
- 2 people stated they felt above 5 quite confident about going home.

Comments
Francis (carer) stated that she felt about 5 on the scale. She felt nervous about her husband going home.

On a scale of 1 – 10 how supported did you feel for the first 2 weeks of being home?

- 5 people stated 0 – 3 not supported for the first 2 weeks at home
- 1 person stated 3 - 5 reasonably supported for the first 2 weeks at home.
- 1 person stated above 5 well supported for the first 2 weeks at home

Comments
Cardiac rehabilitation could use the internet to give information to patients whilst they are at home.

Information booklets were useful.

I learned more from watching the procedure on the internet after I went home than I did whilst in hospital.

Simon (PPCI patient) was discharged from UHW on a Friday and was contacted by cardiac rehabilitation on the following Tuesday. He felt anxious over the weekend because he had questions he wanted to ask which he had not thought of whilst in hospital.

On a scale of 1 – 10 how supported did you feel once you had commenced cardiac rehabilitation?

- 0 people said 0 – 3 not supported
- 0 people said 3 - 5 reasonably supported
- 7 people said above 5 well supported.

Francis (carer) stated that she felt above 5 when her husband started cardiac rehabilitation.

Were you contacted by cardiac rehabilitation in a timely manner?

- 1 person was contacted within 4 days of being discharged
- 4 people were contacted within 2 weeks of being discharged
- 1 person was not contacted until 5 weeks following discharge
- 1 person was not contacted until he was referred from cardiology clinic 3-4 months later

Comments
John was told by the Bill Hobbs staff that he would be referred to cardiac rehabilitation but 4 weeks later he still had ‘not heard anything’ so he rang the ward who told him that ‘the referral had probably been missed’. John was then contacted by cardiac rehabilitation 2 days later.
Bryn was told by the doctor before discharge he did not need cardiac rehabilitation but when he attended cardiology clinic 4 months later the nurse told him that he would benefit from attending and then referred him. Cardiac rehabilitation contacted him 2 days later.

**Did cardiac rehabilitation meet your expectations?**
All 7 people said yes it did meet their expectations.

All 7 people stated that cardiac rehabilitation should be promoted more.

**Comments**
‘Attending cardiac rehabilitation gave me confidence’
‘Increased my knowledge about what I could and should not do’
‘Attending cardiac rehabilitation improved my quality of life’
‘Staff were friendly and approachable, and I enjoyed meeting people in the same boat as me’
‘They are there at all times if I had any concerns or worries’
‘I was very impressed’

**Would you have liked something different from cardiac rehabilitation?**
- 2 people said they would have liked to attend 3 times a week
- 1 person said they had too much information
- 6 people said the information they received was just right
- 5 people said they would have liked their partners to attend

**If cardiac rehabilitation was not available what would you have liked instead?**
5 people said more use of the internet for education.

At this point the project leads discussed alternatives that could have been offered:
Heart manual (1 patient had received this post MI )
Home exercise programmes

All 7 people said they could not see any alternative to attending cardiac rehabilitation.

**Is there anything else you would have liked to have received following your procedure?**
2 people said personal contact whilst at home (Home visit), did not feel telephone contact was enough.

6 patients stated they would have liked cardiology follow up at 3 months post procedure as they expected.
- 1 person (PPCI patient) received an appointment within 3 months
- 1 person waited 4 months
- 2 people waited 6 months
- 3 patients are still awaiting follow up 8-9 months later

**Comments**
‘I rang the hospital because I was worried I had not received an appointment and they told me they would book me in as soon as they could but an appointment was not available for at least 6-8 weeks, if I had not phoned would I have been waiting longer?’

‘6 months later I am still waiting for an appointment when I was told I would be seen in 3 months’

‘A letter to reassure me that I had not been forgotten would be nice’

**If a cardiology follow up appointment was available at 3 months with a cardiac specialist nurse would that acceptable?**

All 7 patients stated that they would not mind who the appointment was with (a doctor or a specialist nurse) as long as they were seen within 3 months.

**Comments**

Bryn had seen a Cardiology Specialist Nurse at the Royal Gwent Hospital instead of a cardiologist and ‘did not mind at all’.

Simon attended cardiac clinic at UHW following his PCI and said ‘there was no problem with being seen by a nurse, he had a good check up and felt reassured’.

**Any additional comments**

All participants agreed that ‘cardiac rehabilitation do a great job’ and it should be available to everyone.

**Conclusion**

It appears from comparing the two focus groups that there has been improvement to PCI patient pathway as a result of the changes put into place by the project group but this could be improved further by:

- Addressing the ‘gap’ between patients being discharged from hospital and the contact from cardiac rehabilitation
- Addressing the long wait for cardiology follow up post procedure