GENESIS HEART CARE REPORT

Clinical outcomes and quality indicators — angioplasty

DECEMBER 2012

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FOREWORD

Coronary artery disease (CAD) is one of the most common and costly health issues in Australia. It remains the largest single cause of death in Australia and, yet surprisingly, little up-to-date information exists about how often people with CAD receive treatment that is consistent with guidelines, and what the results of those treatments are, both in the short and long term. This is why Bupa has partnered with Genesis Heart Care — a group of cardiologists who, like Bupa, is committed to bridging this information gap.

Since 2004, Genesis Heart Care cardiologists have taken industry-leading steps to support people with heart disease — to better understand their condition, the care choices available, the expected results of treatments and how they can make lifestyle decisions to improve their health. They're doing this by collecting, analysing and publicly reporting on important information about their clinical practice and outcomes. In recognising and supporting Genesis Heart Care's ambitious objective, in 2009 Bupa became an active partner in this important journey.

Since then, we have published two reports on clinical outcomes and quality indicators — one in 2010 and this update with 2012 results. The report aims to arm people living with heart disease with crucial information to help them better understand their condition, develop realistic expectations of the results of care and engage in more effective conversations with their cardiologists and other members of their healthcare team. In turn, it's hoped this will lead to better decisions being made about treatment options and better outcomes.

The partnership between Genesis Heart Care and Bupa demonstrates what can be achieved when visionary organisations have a shared commitment to improve patient outcomes. This is also a tangible example of how the private sector can innovate and show leadership in Australia's health reform agenda.

We encourage you, as someone with CAD, to discuss the information in this report with your healthcare team so you can be as informed as possible about your condition, treatment and associated risks.

In closing, we acknowledge the extensive and outstanding work undertaken by the clinicians from our respective organisations in collecting, analysing, interpreting and reporting on the data for this second important report.

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INFORMATION IMPROVES HEALTH

Making informed decisions — for both doctors and patients — starts with good information. Unfortunately, although there is a lot of evidence about what causes heart disease and how to treat it, there is surprisingly little up to date information about the prevalence of risk factors in the Australian population, how often Australians with high risk factors for heart disease receive treatment that is consistent with the evidence, and what the results of treatments are, both in the short and long term. Knowing this information can help doctors improve advice to patients, leading to better decisions about their treatment options and, in turn, better patient health outcomes.

OUR PARTNERSHIP

Bupa has partnered with the largest group of privately practising Australian cardiologists who are dedicated to achieving better health outcomes for patients — Genesis Heart Care (GHC). GHC practices include Heart Care Partners (QLD), Adelaide Cardiology, Heart Care Victoria and Heart Care Western Australia.

The size and scale of GHC's database provides a unique opportunity to collect, analyse and report important information about the cardiologists' clinical practice which Bupa is contributing to via a strategic partnership. The program aims to improve clinical practice and to make this information available to the public so that people with heart conditions can discuss their treatment and care with their cardiologist with a greater understanding of potential outcomes, regardless of whether or not they are a patient of GHC.

ABOUT THE REPORT

This report focuses on coronary artery disease: firstly, because it remains Australia's number one cause of death; secondly, because it has a significant impact on the lives of thousands of Australians; and thirdly, and most importantly, because it is a disease that, if well treated, can have its impact dramatically reduced. In the future, GHC intends to collect and report more information to continually improve the care for their patients as part of evidence-based cardiac care.

The following are some of the key facts identified in the report with additional information to help you use these facts to discuss your treatment with your own cardiologist and help improve your health outcome and quality of life.

The data were collected from 4,273 patients undergoing treatment to open up narrowed or blocked coronary arteries by balloons and/or stents between 1 November 2008 and 31 December 2012. Of these patients, 2,668 were reviewed by their cardiologist 12-months after having treatment.

THE PREVALENCE OF RISK FACTORS

Elevated low density lipoprotein (LDL) cholesterol, high blood pressure, smoking and diabetes are all risk factors for coronary artery disease (CAD). The data below relates to GHC's patients and confirms that there is a high prevalence of risk factors in people needing treatment for CAD in Australia.

THE RESULTS FROM GHC

Risk factors that GHC patients had before treatment include:

61.2%

LDL cholesterol greater than 2 mmol per litre

Less than 40% of over 1,800 patients had cholesterol levels that were under the National Heart Foundation recommendations for patients with CAD.

64.2%

Elevated blood pressure (more than 130/80 mmHg)

Nearly two thirds of the patients had abnormally high blood pressure. Only a third of people had normal blood pressure when they presented for their procedure and many of the patients were already on treatment and were being managed for their blood pressure problem.

23.2%

Diabetes

One quarter of the patients had diabetes. This is almost four times the number of people living with diabetes in the community (Australian Institute of Health and Welfare). A quarter of these patients controlled their diabetes with diet and were not on medications or insulin for their glucose control.

WHAT IS THE EVIDENCE-BASED TREATMENT?

- Treatment for CAD usually consists of lipid-lowering therapy plus lifestyle modification. Reduce weight, lower alcohol consumption and consider blood pressure lowering medications.
- Note that two thirds of patients already on treatment had elevated blood pressure readings, highlighting the importance of regular monitoring.
- With diabetes the first step is lifestyle modification and additional treatment options may include medications or insulin. One quarter of people living with diabetes were able to control it with lifestyle modification alone.

HOW THIS CAN BE APPLIED TO YOUR OWN CONDITION

- If you have CAD or have been identified to have high risk factors, there are many ways you can lower your risk and stop or slow the deterioration of your condition.
- Lifestyle modification, including stopping smoking, losing weight, increasing physical activity and modifying your diet to lower your cholesterol, are all key to helping control your CAD in the long term.
- Most people also benefit from medication to reduce their risks, and some will require further intervention.

QUESTIONS TO ASK YOUR CARDIOLOGIST

- Are my cholesterol and blood pressure within recommended levels?

  For people with known CAD, the National Heart Foundation recommends:

  — LDL cholesterol levels <1.8 mmol per litre

  — blood pressure <130/80 mmHg
- If my cholesterol and blood pressure levels exceed these targets, what should I do to get them under control in the short and long term?
- Do I have diabetes or am I at increased risk of diabetes? If yes, what should I do to get it under control?

EVIDENCE-BASED TREATMENT

Billions of dollars have been spent on research to determine the best ways to combat disease, reduce risk and to give the best chance of a person having a good quality of life despite living with a long-term health problem. Around the world, one of the ways that people look at quality of health care is to see whether the treatment follows the recommended guidelines. Unfortunately, sometimes it doesn't.

THE RESULTS FROM GHC

Medication patients received:

94.1%	Percentage prescribed statins at hospital discharge
92.9%	Percentage of patients still on statin therapy at 12 month review with GHC cardiologist
97%	Overall percentage of patients on lipid-lowering therapy at 12 month review with GHC cardiologist
99.3%	Percentage of patients prescribed anti-platelet agents at the time of coronary event or procedure by GHC cardiologist
95.9%	Percentage of patients still on anti-platelet agents at 12 month review with GHC cardiologist

WHAT IS THE EVIDENCE-BASED TREATMENT?

- Lipid-lowering therapy in conjunction with diet and exercise is the most commonly recommended way of lowering cholesterol.
- In commencing lipid-lowering therapy, it is recommended that statins be considered in all people with CAD. They are not suitable for a minority of patients. Where statins cannot be tolerated at all, ezetimibe is one of the recommended alternatives.
- Anti-platelet agents are drugs that lessen the tendency of blood to clot (like aspirin). This reduces the risk of subsequent heart attack or other unwanted consequences. It is recommended that all patients be prescribed an anti-platelet agent unless there are valid reasons otherwise (called 'contraindication').

The results show that immediately and even after 12 months, optimal therapy can be achieved and maintained in a high proportion of patients. These outcomes for GHC patients compare well with figures worldwide. This high percentage suggests that the practices in place are effective at delivering care that matches the evidence for what works best in patients with CAD. In a small minority of patients, these medications would not be appropriate to prescribe due to factors such as allergies, side effects or drug interactions.

HOW THIS CAN BE APPLIED TO YOUR OWN CONDITION

- If you have high LDL cholesterol you should be prescribed lipid-lowering therapy, starting with a statin, unless contraindicated.
- If you have CAD you should be prescribed an anti-platelet agent unless contraindicated.
- Lipid lowering therapies do not replace making lifestyle changes. Lifestyle modification is an important treatment and complements medication in helping lower your risk of heart attack in the long term.

QUESTIONS TO ASK YOUR CARDIOLOGIST

- If you have elevated LDL and are not on lipid-lowering therapy, ask your cardiologist why they think it is not appropriate for you. It is important that you are aware of any contraindications you have in the event of hospitalisation or an emergency.
- If you are at increased risk of or already have CAD and are not taking an anti-platelet agent, ask your cardiologist why they think it is not appropriate for you. Again, it is important that you are aware of any contraindications you have in the event of hospitalisation or an emergency.

COMPLICATIONS FROM ANGIOPLASTY

Medications along with lifestyle modifications are very effective in the treatment and prevention of heart attacks but sometimes more active interventions are needed and one of the most common is angioplasty. Angioplasty is a procedure that opens up the narrowed or blocked coronary artery that feeds blood, and therefore oxygen and glucose, to your heart. It is sometimes performed as an emergency when you are having or are at immediate risk of having a heart attack. It is also done as an elective (scheduled) procedure, when your symptoms are not sudden. Such symptoms include increasing chest pain on exertion. Angioplasty can open up the artery to prevent chest pain.

There are risks, as with most procedures, even when there is time to prepare. One of the most significant risks is the small chance of having a heart attack around the time of, during or after the procedure. This will depend on a number of factors including the degree of damage to coronary arteries and risk factors including smoking and age. Good preparation can lower the risks but they can never be reduced completely.

THE RESULTS FROM GHC

Complications of angioplasty:

0.8% Myocardial infarction (heart attack) around the time of an elective angioplasty procedure for GHC

0.3% Age- and condition-adjusted death rates (mortality) during elective angioplasty

0.2% Age- and condition-adjusted death rates (mortality) 12 months after elective angioplasty

WHAT IS THE EVIDENCE-BASED TREATMENT?

- One of the most significant risks is the small chance of having a heart attack around the time of, during or after the procedure.
- Death is also a risk of most heart procedures and with angioplasty there is a small risk. Different people are at different levels of risk, so it is best to consider the risk of a particular procedure for each individual.

HOW THIS CAN BE APPLIED TO YOUR OWN CONDITION

- If you require angioplasty, make sure you prepare well for the procedure. This may include:
  - closely monitoring or modifying your medications and making a list for your doctors
  - lifestyle modifications like stopping smoking
  - taking preventative action like limiting activities that increase your risk of a heart attack until after the procedure.

QUESTIONS TO ASK YOUR CARDIOLOGIST

- Are there any alternatives to angioplasty treatment?
- What will happen if I do not receive angioplasty treatment? How does the procedure change my outcome or the risk?
- How urgently do I require angioplasty treatment?
- What are the risks associated with the procedure?
- What do I need to do to prepare for angioplasty to lower my risk and enhance my recovery?
- What can I do to reduce my risk of needing repeat angioplasty in the future?

CHOICE OF CORONARY STENT

The decision to undergo coronary angioplasty and stenting requires careful discussion with your cardiologist. Before proceeding, you should fully understand the risks and benefits of undergoing angioplasty and the choice of stent used.

There are two main types of stents you could have — bare-metal stents (BMS) and drug-eluting (or coated) stents (DES). The choice of which type of stent to use is made together with your cardiologist after review of your individual clinical circumstances. One of the major aims is to avoid the artery blocking again (re-stenosis).

THE RESULTS FROM GHC

72.7% Patients receiving a drug-eluting stent during angioplasty

WHAT IS THE EVIDENCE-BASED TREATMENT?

- For all patients, there is a risk of re-stenosis over the 6–9 months following angioplasty.
- Following angioplasty without stenting, re-stenosis has been observed in up to 30% of patients.
- The risk of re-stenosis is improved with the use of stents. There are two main types: BMS and DES.
- BMS reduce the risk of re-stenosis to approximately 15%.
- DES reduce the risk of re-stenosis to less than 10%.

Recently published evidence confirms that DES outperform BMS with regard to reduced re-stenosis rates. However, it is important to note that DES currently require a longer period of dual anti-platelet therapy (both aspirin and clopidogrel) to offset the risk of thrombosis that can occur after angioplasty (irrespective of stent type). Therefore, a patient's ability to adhere to the prescribed anti-platelet therapy is an important consideration in determining the choice of stent, as is each patient's risk of re-stenosis.[3]

HOW THIS CAN BE APPLIED TO YOUR OWN CONDITION

- In general, factors that increase the risk of re-stenosis include those related to the patient and the affected artery.
- Factors related to the patient include:
  - age
  - smoking
  - history of diabetes or renal failure
  - reduced heart function
  - previous bypass grafts or failed angioplasty
  - multi-vessel disease.
- Factors related to the artery include:
  - size and length of the narrowed segment of artery
  - narrowing at the origin of the artery
  - the patient is clinically unstable, e.g. during a heart attack
  - whether the stent is to be placed into a graft or another stent.
- Other factors may need to be considered when making the final choice of stent in any given individual.

QUESTIONS TO ASK YOUR CARDIOLOGIST

- If I need a stent what would make you consider if I should have a BMS or DES?
- What are the factors favouring one stent over another?
- If my cardiologist advises that I need a stent, have I been prescribed blood thinning medication, i.e. aspirin and clopidogrel?
- Am I at risk of increased bleeding with the blood thinning medication?

LOOKING AT QUALITY OF LIFE OUTCOMES

How healthy you are and how well you feel, even when you have a chronic condition like CAD, may depend on a number of things. Some elements are not directly related to the care you receive, such as your mood, but can still affect your long-term health and quality of life. Understanding them will help you make better decisions about treatments.

THE RESULTS FROM GHC

39.2%

Percentage of patients reporting moderate or extreme levels of anxiety or depression at first assessment of health-related quality of life

WHAT IS THE EVIDENCE-BASED TREATMENT?

- Severe depression requires an individualised approach, which may involve psychological counselling or the use of medications or a combination of the two.
- In less severe depression, cardiac health coaching or rehabilitation programs and regular light/moderate physical activity have been shown to be effective.
- The National Heart Foundation of Australia recommends that health professionals also consider a person's level of social support in managing cardiovascular disease as this is a factor that can impact on mood and prognosis over time.

HOW THIS CAN BE APPLIED TO YOUR OWN CONDITION

- It is important not to underestimate the impact that anxiety or depression can have on your recovery.
- If you are experiencing anxiety or depression, discuss it as a matter of priority with your cardiologist or another doctor you feel comfortable with so that, together, you can begin to address the underlying causes.
- As there are a range of treatments that work for anxiety and depression, the most important thing is to find one that suits your individual circumstances.
- Depending on what is right for you, some helpful strategies for tackling anxiety and depression include:
  - increasing your level of physical activity (if recommended by your doctor)
  - getting involved in more social activities
  - talking about issues and problems that are causing distress
  - tackling negative ways of thinking
  - starting or adjusting medications.

QUESTIONS TO ASK YOUR CARDIOLOGIST

- If you are suffering from anxiety or depression, ask your cardiologist if you can be referred to an appropriate health professional for an assessment of your individual situation.
- If you haven't yet participated in a program of cardiac health coaching or rehabilitation, ask your cardiologist to suggest one for you.
- If you have been doing low-intensity physical activity since your procedure, ask your cardiologist if you can increase to moderate-intensity and whether it is appropriate for you to undertake the recommended 30 minutes per day at this level of exertion.

LIVING HEALTHILY

The evidence shows that modifying your lifestyle to lower your risk factors can be complementary to taking medication to reduce your long term risk of coronary heart disease. Stopping smoking, managing your weight, reducing your intake of high cholesterol foods, not drinking excessive alcohol and increasing physical activity can all have a significant impact on improving your health and your quality of life. It is well recognised that most people will require help to make these changes and your cardiologist can assist in a range of ways from providing information to referring you to a dietitian or relevant social support groups.

MANAGING OTHER HEALTH CONDITIONS

Other conditions that pose a risk, such as diabetes, high blood pressure, high cholesterol or obesity, can increase your likelihood of developing CAD or impact on your outcome if you already have the condition. This detailed report demonstrates that people with CAD may have these conditions and should try to reduce their influence on their health. Check with your doctor if you don't know if you have any of these conditions, or seek advice on how to ramp up your shared efforts to keep them under control.

CHOOSING EVIDENCE-BASED TREATMENTS

National and internationally relevant guidelines provide guidance on treatment choices to deliver improved health outcomes that are based on the best available research evidence. It is important that your treatment reflects these widely accepted guidelines.

MAKING INFORMED CHOICES

When you understand the risks and benefits of the treatment being recommended by a cardiologist and also understand the risks when performed by specific cardiologists and hospitals, you are better prepared to make important decisions about treatment.

A BRIGHTER, MORE INFORMED FUTURE

GHC's quality program is centred on a co-operative approach to optimising patient care. Bupa has supported GHC's ongoing reporting on quality and outcome indicators to help you make better and informed decisions about your health and healthcare. We hope to enhance and improve this information as data and comparisons become available.

One of the key messages here is that, while procedures like angioplasty can have dramatic effects, they can never treat the whole person or every artery in their heart. That needs medications and lifestyle changes — those are the things that will help transform your life and wellbeing in the long term, according to the best available evidence.

In this report we looked not only at what happens if you need a particular procedure, but also at how well subsequent treatment follows the best available evidence. Your cardiologist can help you reduce your subsequent risks by helping you stay on the right medication, keeping your blood pressure, blood sugar and cholesterol low enough to reduce your risk, and by helping you with your weight if that's a problem. As we collect long-term data we will report these results so that long-term treatment can also be improved.

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FOR MORE INFORMATION

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