

The Bristol Heart Institute Regional Adult Cardiac Centre for the South West

As part of the UHBristol Trust's modernisation of clinical services, the newly built £53m regional adult cardiac centre will open in May. Recognising the importance of research in improving clinical care, the cardiac centre has also been named the Bristol Heart Institute. The Institute will be a centre of excellence for cardiology care for the local population and will provide specialised cardiothoracic treatment to patients from across the South West.



Unit Update

The Clinical Trials and Evaluation Unit (CTEU) has undergone a rapid expansion in recent months. Funding awarded to the BHI, including a large grant specifically for "translational" research (see below), means that we have been able to increase the core CTEU staff from 11 at the start of 2008 to 20 by the end of the year, with more appointments expected during 2009. The additional staff include medical statisticians, clinical trial co-ordinators and IT staff who, along with our existing workforce, will all provide valuable support to the ongoing programme of research in the Unit. Combined with the imminent opening of the regional adult cardiac centre, with brand new purpose-built premises (see above article), these are exciting times for the development of cardiac research in Bristol!

Biomedical Research Unit (BRU)

Because of the way that research has been funded in the past, it has often been difficult to take promising new treatments from the laboratory to the next stage, evaluating their benefits in patients. New funding from the UK National Institute for Health Research (NIHR), awarded to the BHI early last year, has strengthened the link between lab work and clinical trials. The funding for a Biomedical Research Unit on Cardiovascular Disease (£3.75m over 4 years) is specifically for this kind of "translational" research.

Long-term Monitoring of Health Outcomes After Cardiac Surgery

We are extremely grateful to the many hundreds of patients who send back their questionnaires to us each month and to the GPs who support our follow-up programme too. The data you provide is invaluable to our research.

The long-term monitoring programme has been running for more than 5 years and our Unit Administrator, Jan Wild, has been responsible for managing the system for most of that time. If you have telephoned the Clinical Trials and Evaluation Unit at any time, it is most likely that you spoke to Jan. We were sorry to say goodbye to Jan at the end of December 2008 when she retired and we are in the process of looking for a replacement for her. In the meantime, others in the Unit are "holding the fort".



TITRe2 Trial

Investigating Who Really Needs a Blood Transfusion

In the last issue we mentioned a pilot study which investigated whether traditional reasons for giving blood transfusions after cardiac surgery lead to the best outcomes for patients (the TITRe trial). As a result of this pilot, we are now preparing a large-scale study to examine this in detail at a number of sites across the UK (the TITRe2 trial).

The most common reason for giving a transfusion after heart surgery is because the level of haemoglobin (a substance in the blood that supplies oxygen to the body) has fallen below a set value or 'threshold' - a blood transfusion is given to increase the amount of oxygen available to the body. Doctors don't know the extent to which a blood transfusion really helps to increase the amount of oxygen available to the body, except when the levels of haemoglobin have fallen very low. Transfusing blood unnecessarily may cause the body more stress and reduce its ability to fight infection. Doctors must weigh-up the possible benefits and risks when deciding whether to give a transfusion but there is a lack of agreement about the haemoglobin level to use for deciding when to transfuse a patient.

The purpose of the TITRe2 trial is to collect evidence from more hospitals and from a much larger number of patients to provide better guidance to doctors about when to give a blood transfusion. We aim to recruit 2,000 heart surgery patients from across the country to investigate whether lowering the transfusion threshold can help reduce the number of unnecessary transfusions and improve outcomes for patients.

Patient Preference Study

Symptoms of angina can be treated by drugs, angioplasty or surgery. The benefits and risks of these treatments vary and different patients are likely to value benefits and risks in different ways. A cautious person may want to avoid the risks of surgery at all costs, even if this means having angina from time-to-time. Another person may want to be free from angina once-and-for-all, whatever the short term risks from treatment. Patients often find it difficult to weigh up the factors that need to be taken into account in order to make the choice that is best for them.

About 50 patients admitted to the BRI in 2006 with acute chest pain helped to us to test out a new questionnaire to identify patients' preferences for different treatments. They indicated how much they agreed with views about treatments previously expressed by other patients, for example, 'Medication is not usually very risky', 'Medication doesn't really solve the problem', 'I'm frightened by surgery', 'Surgery gets the treatment over with quickly'.

The research done at the BRI has now been taken a step further by asking many more patients having their chest pain managed by their GPs to complete the questionnaire. There is still some way to go but we hope that, in the future, this questionnaire will help patients to make the choices that are best for them.

Studies in Diabetic Patients Having Cardiac Surgery

Approximately 20% of patients having cardiac surgery have diabetes. A recent study, using data from more than 8000 patients operated on at the BRI, found that in some patients their blood sugar levels were poorly controlled following their operation. This was more likely to happen in patients with diabetes. Patients with poorly controlled blood sugar levels were also found to have a higher risk of surgical complications than other patients. Following on from this study, methods to better manage patients' blood sugar levels have been introduced. A clinical trial in diabetic patients, which will focus on pre-surgery care, is also being set up. The Verdict Trial will compare the outcome of the surgery for patients given additional fluid in the 12 hours before the operation with the outcome for those not given any additional fluid (standard pre-operative care). It is hoped that the extra fluids will help reduce the risk of kidney problems and that patients will recover more quickly. Results of this trial will be summarized in a future newsletter.

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