

**CANTERBURY  
DISTRICT HEALTH  
BOARD QUALITY  
AND INNOVATION  
AWARDS**

**Project Summaries  
for 2005 Entries**

Quality and Patient Safety  
Council



# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>3</b>
<b>2005 CLINICAL/DIAGNOSTIC; COMMUNITY BASED SERVICES ENTRIES</b>	<b>4</b>
MENTAL HEALTH SCREENING IN A WOMEN'S PRISON	4
UNDER FIVES HEALTHY HEART AWARD PROJECT	5
<b>2005 CLINICAL/DIAGNOSTIC; HOSPITAL &amp; SPECIALIST SERVICE ENTRIES</b>	<b>6</b>
ACCESS TO MEDICATIONS AFTER HOURS AT CHRISTCHURCH HOSPITAL	6
ADOLESCENT ALCOHOL INTOXICATION; A PROGRAMME OF PRE-DISCHARGE PLANNING FOR THE EMERGENCY DEPARTMENT	7
BLOOD USAGE PROJECT	8
BREAKDOWN PREVENTION IN CANCER CARE	9
HEART FAILURE REHABILITATION PROGRAMME	10
IMPROVING THE MANAGEMENT OF THORACIC AORTIC DISEASE	11
THE DEVELOPMENT OF A DEDICATED NEUROENDOVASCULAR SERVICE	12
THE MEMORY ASSESSMENT CLINIC	13
<b>2005 SYSTEMS IMPROVEMENT ENTRIES</b>	<b>14</b>
MENTAL HEALTH NURSING INDUCTION PROGRAMME	14
PHYSIOTHERAPY ASSESSMENT & EQUIPMENT PROVISION FOR THE BARIATRIC PATIENT	15
RECOVERY – AUTONOMY AND DUTY OF CARE	16
ST JOHN FRIENDS OF THE EMERGENCY DEPARTMENT	17
THE QUALITY CHALLENGE	18
VOCERA PAGING PILOT AT CHRISTCHURCH HOSPITAL	19

# INTRODUCTION

The Canterbury DHB Quality and Innovation Awards are sponsored by the Canterbury DHB's Quality and Patient Safety Council. This Council was established in 2002 to promote quality improvement within the DHB, thereby ensuring the provision of patient centred, evidence based, systems minded, safe, sustainable health care to the population served by Canterbury DHB. The Council also promotes the sharing of information and establishment of best practice across the DHB. The Council's membership is by invitation, (through the Chief Executive), and includes representatives from the Canterbury DHB operating division and community based services.

The awards programme was first introduced in 2003 and is designed to recognise and publicly acknowledge the excellent quality, innovation and improvement initiatives generated by Canterbury DHB staff and our community based services.

A number of the projects entered in past Canterbury DHB Quality & Innovation Awards programmes have gone on to enjoy success at national and international levels. We hope that you will consider entering your projects in external quality awards programmes. The Corporate Quality & Risk team for information on external programmes and key dates. They are also happy to assist and support you through the entry process.

The 2005 programme comprised of 3 categories, Clinical/Diagnostic; Community Based Services, Clinical Diagnostic; Hospital & Specialist Service and Systems Improvement. A total of 16 projects were received and the categories for each project were confirmed as part of the assessment process.

Congratulations to all those who took part. It is great to be able to recognise, publicly acknowledge and share the valuable quality initiatives and improvements which are taking place. We hope you have found this a valuable process and encourage you to submit quality improvement and innovation projects into future awards programmes.

We would also like to take this opportunity to encourage you to provide us with feedback on the process so we can continue to enhance the programme in the future.

This booklet has been produced by the Corporate Quality & Risk team to provide you with a brief overview of the project entries. Please refer to the Canterbury DHB website ([www.cdhb.govt.nz](http://www.cdhb.govt.nz)) for further information.

# 2005 CLINICAL/DIAGNOSTIC; COMMUNITY BASED SERVICES ENTRIES

## **Mental Health Screening in a Women's Prison**

Canterbury Regional Forensic Service, Forensic Community Team, Mental Health Division, Hillmorton Hospital

This project examined the utilisation, effectiveness, acceptability and effect on service provision of screening tools to examine for the possible presence of mental illness and suicide risk in new prison receptions/admissions.

A number of key objectives were identified:

- To bring the rate of identification of women prisoners with suspected mental disorder in line with national and international epidemiological data;
- To facilitate the principle of equivalence for mentally ill offenders in prison;
- To develop a system of assessment and triage to allow a multi-agency and disciplinary approach to the treatment and release planning of female prisoners;
- To enhance the skills of correctional staff in identifying and managing inmates with mental illness;
- To ensure the psychiatric clinics are proactive and enhance early intervention;
- To facilitate a recovery model approach to prison mental health care;
- To reduce the expected rate of self-harm or suicide in the population;
- To reduce the occupancy of the prison "at risk unit".

For a one year period 2 screening tools (a Referral Decision Scale and Suicide Checklist) were administered to all receptions/admissions. All those who screened positive were referred to the Regional Forensic service, where they were prioritised and went on to receive a triage assessment by an experienced forensic nurse. Those with a probable mental disorder or who presented with significant safety issues were referred for psychiatric assessment. The project outcome measures included feedback from the prison staff about the use of the tool; any perceived effect on acuity within the institution; qualitative analysis of the validity and sensitivity of the tool; and the likely effect on resource provision for both Health and Corrections services.

The results showed that the total referrals for the year increased almost five-fold from 25 before screening to 117. 23.6% of all new receptions/admissions screened positive using the tools. This compared with 7.7% in the comparison pre-screening year. Almost half of positive screens received psychiatric follow up. Many others were triaged to alternate service providers. At least 44% of those referred received these other interventions. Only 11 cases were referred outside of the initial health screening process. Five had screened negative at

reception/admission, but none were referred for either serious de novo mental illness or safety issues. A reduction of self-harm episodes and unit acuity was observed.

In conclusion, the tools were well tolerated, quick to administer and aided the detection and early intervention for women inmates. Anecdotally self-harm rates were reduced and the occupancy of the “at risk unit” was reduced and prison staff reported improved management of mentally disordered inmates.

*Contact Person: Dr Mark Earthrowl, Clinical Head and Consultant in Forensic Psychiatry, Canterbury Regional Forensic Service, Hillmorton Hospital*

### **Under Fives Healthy Heart Award Project** **National Heart Foundation and Community & Public Health**

Towards the end of 2003, the Under 5's Project Team was established as a pilot to promote and implement the Heart Foundation's Healthy Heart Award in Canterbury.

The pilot has created the opportunity for the Heart Foundation, Community and Public Health and Hauora Matauraka (part of C&PH) to work together, providing a greater level of support, resources and expertise for the award's delivery. The collaboration represents a new way of working for the organisations involved with a formal project agreement, a joint project team and an external evaluator.

The Healthy Heart Award Programme is a framework for early childhood teachers which helps them to develop early childhood environments which support healthy eating and active movement. The Programme began in July 2002.

By working collaboratively with the public health community, and organisations with an interest in the early childhood sector, the project team has increased the awareness and support for the Healthy Heart Award Programme represented by dramatically increased numbers of Registrations and Awards. This has been a very successful project and has meant hundreds of pre-schoolers and their families having increased awareness of nutrition and physical activity issues as well as sustainable environmental changes to dozens of Early Childhood Centres throughout Canterbury.

The pilot has provided some interesting insights to working in this manner through a process evaluation. It has been very successful in increasing the number of centres involved in addressing nutrition & physical activity issues for the many hundreds of children involved.

Both partners to this project are committed to continue to work in the early childhood sector given its importance in establishing healthy lifestyles.

*Contact Person: Anne Trappit, Regional Heart Health Manager, Canterbury Regional Office of the National Heart Foundation,*

# 2005 CLINICAL/DIAGNOSTIC; HOSPITAL & SPECIALIST SERVICE ENTRIES

## **Access to Medications After Hours at Christchurch Hospital**

Department of Nursing, Medical & Surgical Services, Christchurch Hospital

This project addressed the amount of time nurses spent away from the ward after hours accessing the Emergency Drug Cupboard.

Each ward/department is provided with a reasonable drug stock to cover their patient population and this inventory is revised frequently by pharmacy staff. However patients are often admitted after hours and prescribed medications that are not held in ward stock. To provide access to non-controlled drugs after hours an Emergency Drug Cupboard was available on the Ground floor of the hospital. Nurses who required medication for their patients after hours, which were not stocked on their ward, could access this cupboard using their identification badge.

An audit was completed in 2003 to measure the time nurses were taken away from their patients collecting non-controlled drugs. The audit results showed that during the week data was collected nurses spent 26 hours accessing the Emergency Drug Cupboard.

Recognising the increasing pressure on nurses' workload, the Department of Nursing endeavoured to find a system whereby nurses could obtain the medications their patient required without the need to leave the ward. Increasing pharmacy hours was not an option due to available resources and increasing the stock of drugs held in all Wards/departments was also an unrealistic solution.

A committee of stakeholders was convened to brainstorm a solution. The most favourable option was to introduce an After Hours Drug Trolley that could be taken around the Wards/Departments taking the non-controlled drugs to the nurses. Once finance was obtained, a trolley was designed and a system developed for nursing staff to access this mobile service when drugs were required. The Canterbury DHB Security Manager agreed that security staff would take on the responsibility of transporting the After Hours Drug Trolley around those areas during their usual patrol times of the Wards/Departments.

3 months after the new system was introduced a follow up audit was completed and analysis revealed that the cost of purchasing the trolley will have been covered within 4 months (based on current usage) by the service efficiencies it brings. There were also indications the demand will increase as staff become familiar with the process.

*Contact Person: Sue Harrison, Quality Facilitator, Department of Nursing*

## Adolescent Alcohol Intoxication; A Programme of Pre-discharge Planning for the Emergency Department

Emergency Department, Christchurch Hospital

The Adolescent Alcohol Intoxication project involved the development of an assessment programme as part of the pre-discharge plan for adolescents who attend the Emergency Department in an intoxicated state.

Adolescent alcohol intoxication is a high profile, significant issue in Christchurch. It is one that has impacted on the ED and hospital services, as well as primary and mental health services. The social costs are significant, and there is a ministerial level of support for intervention in this area. At the time of writing there is a Private Members' Bill before Parliament considering the harmful impact of current patterns of alcohol consumption by young people. Secondary schools are also concerned about the impact of alcohol misuse by their students, and the growing 'binge' culture that is a feature of our society.

This is an important health initiative that addresses local, regional and national aspirations for reducing harm associated with alcohol consumption amongst young people (Alcohol Advisory Council 2001).

A pilot project involving a small number of patients over a 15 month period was conducted. Ten patients between the ages of 14 and 24 were jointly interviewed by the Emergency Department Social Worker and the Clinical Nurse Coordinator.

Clinical staff use one of two validated assessment tools. Patients under 18 years were assessed using the CRAFFT assessment tool (Knight, Sherritt, Shrier, et al 2002). Over 18 year olds were assessed using the Alcohol Advisory Council (ALAC) DRINKCHECK© tool (Alcohol Advisory Council of New Zealand 2003). Both tools have been validated for use in the ED.

Five patients were identified as being at medium to high risk of alcohol related harm. Referral advice was given to the patients and, where appropriate, advice provided for parents.

Further work is planned following the pilot to enhance service delivery in this area. Service delivery will be improved by:

- raising awareness of the issue amongst ED staff, and ensuring that alcohol intake is considered along with other aspects of the clinical history.
- providing training for all ED nursing staff who are likely to be caring for intoxicated adolescent patients.
- identifying and quantifying the degree of risk for individuals presenting in an intoxicated state to the ED
- improving the community / CDHB interface, with the development of a collaborative and mutually supportive project.

Contact Person: *Christine Corin, Social Worker, Emergency Department, Christchurch Hospital*

## Blood Usage Project

Blood Usage Project Team, Medical & Surgical Services, Christchurch Hospital and the New Zealand Blood Service

The Blood Usage Project, undertaken from April 2004 until June 2005, was initiated and designed to review the utilisation of and minimise the waste of red blood cell use at Christchurch Hospital. This was achieved through a review of current clinical guidelines and the current processes of ordering of red blood cell units for transfusion.

Similar work to decrease the clinical risks of unnecessary transfusions and a reduction in the 'wastage' of blood had previously been undertaken at Burwood Hospital. It was felt that similar gains could be achieved at Christchurch Hospital, with associated cost savings to the Canterbury District Health Board.

The main objectives outlined for the Blood Usage Project focused predominately on appropriate ordering of red blood cells. This would result in a decrease in the amount of blood being returned (wastage) as well as an overall reduction in blood usage.

The achievements obtained from the Blood Usage Project are a result of the relocation of the Blood Bank, associated new issuing processes and staff education regarding best practice guidelines for blood usage via the publicity campaign.

Review of statistical data developed and monitored by the New Zealand Blood Service demonstrates that there has been overall improvement in all four categories, with some categories having significant positive changes.

- The number of units of blood issued has decreased steadily since July 2003 with an average saving of 368 units of blood per month
- The number of units returned to the blood bank has decreased sharply since July 2003 with an average saving of 357 units per month
- The number of units of blood being transfused has decreased during July 2003 with an average saving of 11 units per month, reflecting an increasing awareness of blood transfusion guidelines
- The transfusion percentage of overall blood issued has increased significantly since July 2003 with a high transfusion rate of 94% in June 2005 and an average transfusion rate of 75% during the 04/05 year, this reflects an average increase of 17% per month in appropriate usage of blood being issued.
- Financial savings of \$104,140.00 have been achieved in the period October 2004 to June 2005.

Through the reduced and appropriate usage of blood transfusions the risk to patients of adverse events has been decreased. *"Any adverse event experienced by a patient receiving a blood transfusion is unacceptable if the transfusion was not indicated"* – Bloodsafe, March 2003.

Contact People: *Felicity Woodham, Project Manager, Business Development Unit, Hospital & Specialist Service*

## **Breakdown Prevention in Cancer Care**

Oncology Physics Group, Medical & Surgical Services, Christchurch Hospital

A vital tool in the fight against cancer is the medical linear accelerator which produces a powerful beam of therapy X-Rays. The Oncology Service currently has two Varian linear accelerators (the third and oldest unit is being replaced). The linear accelerators are pivotal to radiotherapy in Canterbury. There are only 5 centres in New Zealand which support these machines, Dunedin being the only other centre in the South Island.

Each machine-hour provides vital cancer treatment to 4 people. The upkeep and health of these machines is of vital concern. Unscheduled downtime is a major issue.

Every morning the linear accelerator performs a thorough self check routine called morning checkout. During the tests the machine logs it's vital parameters into a daily report. This report is stored on disk and optionally printed. The data is impossible to analyse by hand because of it's bulk and layout. Most linear accelerator engineers do not perform any analysis of the data until a machine fault demands it.

The data however provides an indicator of machine stability and pending component failure. The ability to use this data in a timely manner therefore has several advantages. Firstly that of predictive failure planning, where failing components can be replaced before critical failure occurs, resulting in less downtime. Secondly better fault diagnosis. If a critical failure occurs the ability to compare parameters 'under fault conditions' with a known 'good machine' results in faster troubleshooting and more accurate fault diagnosis. Thirdly, a greater degree of confidence that the machine is safe to release for patient use.

The project involved the development of a mechanism to acquire the data and analyse it quickly and simply. The result is a very useful and versatile tool to minimise costly downtime and ensure the quality of our radiotherapy treatments.

The diligence and thoroughness of the Oncology Physics team in using the tool to execute the acquisition sequence and analyse the data has ensured the machines are kept at a superb operational standard.

*Contact Person: Dave Pinchin, Physics Technician, Medical Physics & Bioengineering*

## **Heart Failure Rehabilitation Programme**

Physiotherapy Department, Medical & Surgical Services, Christchurch Hospital

Cardiovascular disease is the main cause of morbidity and mortality in New Zealand, responsible for 40% of all deaths annually, (New Zealand Guidelines Group & The National Heart Foundation of New Zealand, 2002). The Cardiovascular disease of Chronic heart failure (CHF) is one of the most disabling medical conditions. It is the end stage of heart disease, and is common among older people. Patients characteristically present with exercise intolerance and marked fatigue and breathlessness at low exercise levels. Traditional Cardiac Rehabilitation (CR) focuses on patients with ischaemic heart disease. However, in 40% of people with CHF, the causes are non-ischaemic.

The aim of the project was to set up a dedicated heart failure rehabilitation programme that met the following aims:

- To increase patients' understanding of the mechanisms and treatment of heart failure – to be measured by feedback questionnaire.
- To empower patients to initiate and maintain lifestyle behaviours to minimise further cardiovascular deterioration – to be measured by quality of life questionnaires.
- To improve and maintain exercise tolerance – to be measured by a standardised exercise test.
- To help patients' identify early sign of decompensating heart failure. This aimed to reduce rate of hospital re-admission rates and length of stay.

The heart failure rehabilitation programme is now established. It involves exercise three times a week for three months and a comprehensive education component. The first patients were assessed in November 2004 and the exercise classes started in January 2005. Patients were assessed against a selection of outcome measures including the:

- Six Minute Walk Test Distance (6MWT) which was selected to measure sub-maximal exercise tolerance,
- Minnesota Living With Heart Failure Questionnaire (MLWHFQ) which is a disease specific tool that measures Quality of life, and
- Hospital Anxiety and Depression Scale (HADS). In ischaemic heart disease, anxiety and depression have been shown to be linked with readmission rates and poor patient outcome.

Each patient was given the two questions and the 6MWT on their initial assessment and then on completion of the programme at 3 months.

To date, eight patients have completed the programme. Results clearly show an overall improvement in quality of life for all patients involved. All participants

demonstrated a 10% increase in walking distance which is considered significant. These initial results reflect those documented in the research.

This project has seen the establishment of the first dedicated Heart Failure Rehabilitation Programme in New Zealand.

*Contact Person: Sarah Fitzgerald, Senior Physiotherapist, Medical & Surgical Service*

### **Improving the Management of Thoracic Aortic Disease** The Vascular Team, Medical & Surgical Services, Christchurch Hospital

This project describes an important quality improvement introduced this year to the management of patients with thoracic aortic disease. In 2001, the Vascular team (comprising Vascular Radiology, Vascular Surgery and the Vascular Studies Unit) introduced to New Zealand an innovative new treatment of pathologies affecting the wall of the thoracic aorta, namely splitting (dissection) and tearing (traumatic injury), both of which may lead to death if untreated.

The new keyhole treatment [whereby a tube (stent graft) is placed inside the damaged artery via a small hole in the groin] replaced hazardous open surgery, leading to a large reduction in death and other complications, as well as substantial cost savings.

However, for the benefits to the patient to be felt in the long term, and due to the unknown durability of this new technology, continuous and regular monitoring of the stent graft is essential. In the absence of any New Zealand standards or international guidelines, the need for timely, fail-safe follow-up of and relevant data collation concerning these patients was recognised. The first few patients who underwent this procedure appeared to have been followed on an ad hoc basis and, mindful of the subsequent risk to the patient of not receiving timely clinical and radiological follow-up, a review of the initial practice in early 2004 was performed.

At the start of the review, through internal audit, risk assessment and research on what occurs at other institutions, a project plan was formulated to facilitate the establishment of a *formal* surveillance program and database. This would ensure appropriate follow-up of patients to improve their clinical outlook and to facilitate accurate data collection for audit purposes. These main aims were achieved in March 2004, and a plan for maintaining the success of the surveillance program put in place.

Subsequent audit in May 2005 showed a clear benefit has been gained by the establishment and ongoing maintenance of the surveillance program, and these lessons have enabled the Vascular team to present and publish its experience nationally and internationally. Canterbury DHB has as a result been

established as an authority on the subject. Furthermore, the team is in the process of establishing a national audit database for the treatment, which will capture all New Zealand data and enable the analysis of data at a national level and the sharing of information to gain a better understanding this new technology.

*Contact Person: Isabel Wright, Vascular Technician, Vascular Studies Unit, Radiology*

### **The Development of a Dedicated Neuroendovascular Service** Department of Neurosurgery, Radiology and Anesthesiology, Medical & Surgical Services, Christchurch Hospital

Subarachnoid hemorrhage secondary to the rupture of an intracranial aneurysm has an annual incidence of approximately 15 per 100,000 population. The department of Neurosurgery at Christchurch Hospital treats up to 50 patients with this condition per annum. Up to March 2004, this was largely done by performing a surgical procedure called a craniotomy and clipping, an open procedure where the surgeon surgically removes a section of the skull and places a metal clip over the neck of the aneurysm to exclude it from the rest of the circulation. After the clipping the bone is secured in its original place.

Since the early nineties, worldwide a growing number of patients are treated by means of a procedure called coiling of the aneurysm. This is performed through an endovascular route at which time a small catheter is placed inside the aneurysm via a femoral access similar to that of a standard angiogram and through this micro-catheter, tiny detachable platinum coils are placed inside the aneurysm until it is completely occluded thus preventing a further hemorrhage

Prior to March 2004, South Island patients that were in need of this type of treatment had to be transported via air ambulance (at great cost), to the Endovascular Unit at Auckland Hospital (established there in 1996). The medical risk to the patient being transferred was not insignificant.

By establishing the unit at Christchurch Hospital, patients now have direct access to this highly specialised service. The team performing this procedure includes an experienced neuro-radiologist, neurosurgeon and neuro-anesthetist, all of whom are involved in the hands-on management of each case, which is a unique arrangement not found elsewhere in the region. The patient benefits tremendously from immediate radiological and neurosurgical expertise during each procedure whilst at the same time has the anesthetic performed by a dedicated neuro-anesthetist with endovascular experience for a safe and expedient procedure.

*Contact Person: Ronald Boet, Consultant Neurosurgeon, Department of Neurosurgery*

## **The Memory Assessment Clinic**

**Psychiatric Service for the Elderly, Older Person's Health & Rehabilitation, The Princess Margaret Hospital**

The New Zealand population is ageing. In Canterbury in 2001 there were 57,222 people over the age of 65 and this is expected to rise to approximately 96,250 in 2021. One of the major risk factors for developing dementia is a person's increasing age. Currently it is estimated through extrapolation of health demographics that there are about 3000 people in the greater Christchurch area who suffer from dementia, many of whom may not have had a formal assessment or diagnosis.

It is widely accepted that early diagnosis of dementia is important for the following reasons;

- a few dementias are reversible;
- risk factors may be modified in some cases;
- to distinguish dementia from depression;
- reduce carer burden through understanding;
- access to treatment early in the illness; and
- to assist in ongoing management plans.

Psychiatric Service for the Elderly provides assessment and treatment for people over the age of sixty-five with a psychiatric disorder or over the age of fifty with a proven diagnosis of dementia.

This project saw the establishment of a Memory Assessment Clinic to provide a standardised approach for the assessment of people with mild to moderate cognitive impairment within Health Care of the Elderly. There was previously no standardised approach and patients may have been seen in outpatient clinics and in community settings, often by 1 or 2 clinicians. These patients also tended to be given a low priority on the waiting list because of a lack of safety issues and they could wait up to nine months for assessment and diagnosis.

The Clinic focuses on assessment, disclosure of diagnosis, support and information regarding options for future management. It commenced in February 2004, and 96 patients have been assessed since then. The waiting time for this group of patients has reduced from up to 9 months to less than 2 months.

This service is seen as the most streamlined Memory Assessment Clinic in New Zealand and it complements the other services offered in the Psychiatric Service for the Elderly and Older Persons Health at Princess Margaret Hospital.

The main challenge in the future is to increase Clinic capacity to cope with the future demand that will inevitably result from the ageing population. This model of assessment can be used as a basis to cope with this future growth.

*Contact Person: Dr Jeff Kirwan, Clinical Director, Psychiatric Service for the Elderly*

# 2005 SYSTEMS IMPROVEMENT ENTRIES

## **Mental Health Nursing Induction Programme**

Clinical Support, Training Unit, Mental Health, Hillmorton Hospital

The Induction Programme to Mental Health Services was introduced in February 2002 in response to an identified need to provide a more supportive pathway for new staff who wished to pursue a career in mental health nursing. It was also hoped that the Induction Programme would have a positive impact on recruitment and retention in Mental Health Services.

The programme was reviewed and enhanced in 2004 in order to address the changing needs of the Mental Health Services. The review found that while the New Graduate Speciality Entrance Programme was addressing the needs of the new graduates there were other groups requiring educational and professional development. The following groups were identified:

- Nurses moving within specialities of the Mental Health Service,
- Nurses returning to the workforce,
- Nurses who have completed Bridging Programmes,
- Overseas registered Nurses,
- Nurses in full-time/pool/causal pool to assist in meeting performance appraisal competencies and
- Registered Nurses outside the criteria for the New Graduate Speciality Entrance Programme.

The revised goal of the Mental Health Induction Programme (IP) is to provide educational support and professional development for new and existing Registered Nurses within the local and regional Mental Health Services.

The new objectives of the programme are to:

- develop attitudes, knowledge and behaviours in the mental health nurse and assist in transition to clinical application,
- facilitate integration into the mental health work setting, within a supportive environment,
- nurture a desire for continuing professional development and
- encourage nurses to remain in the speciality of mental health.

The programme now consists of an individually tailored packaged for each participant involving up to 20 comprehensive study days divided into 4 modules over 6 months.

A new evaluation form was developed, trialed and introduced to provide feedback on the programme from the participants. Included in the evaluation form are questions regarding the quality of the sessions, the learning gained by participants, whether the session was based at the right level and the appropriateness of the content of the sessions.

In addition to the Certificate preceptor's receive on completing the programme a formal Preceptee Evaluation Form for Preceptor's was introduced. With the changing environment around competency-based practicing certificates preceptor's were conscious of having some form of written record for credentialing or audit purposes for the New Zealand Nursing Council.

Education packages and pamphlets have been developed to market the 'new look' Mental Health Induction Programme, with regular advertising of the modules and subjects. This is an ongoing project, but results so far are positive.

*Contact Person: Cathy King, Coordinator, Mental Health Nursing Induction Programme*

### **Physiotherapy Assessment & Equipment Provision for the Bariatric Patient**

**Physiotherapy Service, Older Person's Health & Rehabilitation, Burwood Hospital**

Obesity has been acknowledged as a chronic global condition impacting greatly on the provision of health services. Within healthcare the branch of medicine concerned with the management (prevention or control) of obesity and allied diseases is called Bariatrics.

Bariatric admissions within the Canterbury DHB are on the increase both in the acute and rehabilitation sectors. Physiotherapeutic issues in relation to these admissions include mobility assessment as well as treatment and mobility equipment provision. These issues could potentially have an impact on the length of stay of the patient. Weight limits on most standard hospital equipment used for care and treatment may be exceeded when used with bariatric patients.

This project produced a set of guidelines for the mobility assessment of a Bariatric patient. These were cross-referenced with guidelines from the UK and USA and Australia, peer reviewed and document controlled.

The mobility assessment guidelines produced by this project are essential to reduce potential manual handling injuries to staff and patient and optimise early mobilisation with suitable equipment. Review of these guidelines within a twelve-month period will be required to ensure suitability and ease of application.

The project also included an audit of all weight limits on physiotherapy equipment used for both treatment and mobility. A list of departmental therapy equipment presently in use or being supplied to patients has been drawn up stating weight limits. A folder containing information of suitable equipment and providers is now available to staff.

*Contact Person: Robert Hopkins, Physiotherapist*

## Recovery – Autonomy and Duty of Care

### Richmond Fellowship

Richmond Fellowship New Zealand (Richmond) is a major national provider of specialist community health and support services. It is one of New Zealand's largest specialist "Third Sector" organisations. Richmond provides services for around 2,500 people throughout New Zealand and the Pacific each year.

A Certification audit in August 2004 identified that there appeared to be some confusion in the definition of the terms recovery, autonomy and duty of care with regard to a service users journey.

A group was set up to provide a working definition for the community support professionals in the Southern Region, taking into account that Richmond Fellowship is not only a provider of mental health services but also one that supports people with intellectual disability and young people with various complex issues.

In developing the working definition a training package had to be compiled that would address recovery in mental health, resilience in youth and the pathway to inclusion for those with intellectual disability.

The result was a year long project that will enhance the Richmond Fellowship's values and philosophy and the overall outcomes to service users whilst being supported in Richmond Fellowship.

The group have determined that:

- Reflective practice is necessary to ensure all staff have an understanding of the terms used in health and within Richmond Fellowship and that it was not good to assume staff understanding.
- To ask staff to be accountable for practice is unreasonable without clarity from the organisation of who they are and what that means in day-to-day practice.
- The organisation had matured to a point that it was ready to challenge its philosophical base and to produce a clear statement of who they were.
- To review existing practice allows staff to grow and to change the journey for them and the service users.
- To produce a training package that reflects evidence-based practice without losing the integrity of the organisation, takes time.
- The training package requires to be measurable and to be a living document that will enable new directions to be implemented and for Richmond Fellowship to continue to be creative and imaginative in its delivery of service and to ensure ongoing continuous quality improvement.

This is an ongoing project that reflects continuous quality improvement. It has had significant outcomes to date in the Southern Region that will be rolled out throughout the Richmond Fellowship services once completed.

*Contact Person: Jackie Long, Area Manager, Richmond Fellowship*

### **St John Friends of the Emergency Department** **St John Northern Region (SI) Trust**

The St John Friends of the Emergency Department (FEDs) project was conceived to address gaps in the provision of non-clinical care and comfort for patients and their families in the Emergency Departments (ED) of public hospitals.

Some early work was undertaken during the first half of 2001, when members of the St John Northern region management team discussed ways to widen the role of St John volunteers in the community – including the potential for a return to the ‘roots’ of St John by having volunteers work in hospitals.

Following the success of the FEDs programme in the ED at Auckland Public Hospital it was decided to set up a team in Christchurch Hospital. In September 2003 a project team met to discuss the needs of consumers/patients and staff in the Christchurch Hospital ED. Following planning and training the service was launched with 58 fully trained volunteers on the 14 April 2004. The service was available between 10am and 10pm, 365 days of the year.

Feedback from ED staff indicates that on site complaints have decreased significantly since the introduction of FEDs and while some patients and their families still face long waits they feel they are being cared for. Whilst presentations to ED have increased by 3% per annum to 70,000 formal complaints have reduced by 5% despite a period of significant publicity about the Departments issues. This is in part attributed to the FEDs programme.

The ED staff members are very enthusiastic and supportive of the programme, to the extent that FEDs is now an integral part of the ED. ED staff acknowledge that the FEDs presence and attendance to patient and family demands contributes to reduced levels of stress both on staff and families.

Presently St John Northern Region (SI) is managing over 60 FED volunteers. The service operates 365 days of the year, 12 hours a day in four hour shifts with two volunteers per shift.

*Contact Person: David Thomas, Health Services Manager, St John*

## The Quality Challenge

### Canterbury Regional Office, Access Homehealth Ltd

Access Homehealth (Access) is a nationwide home healthcare organisation with five regional offices around New Zealand. Canterbury is one of Access' largest regional bases, encompassing coordination centres in Christchurch, Timaru, Greymouth and Nelson, an administration centre in Ashburton and home-based centres at Westport, Kaikoura, Leithfield, Darfield and Diamond Harbour. The Canterbury office employs 35 coordination staff and 780 support workers.

Access, with its emphasis on rural care and its ownership as a charitable company by Rural Women, is an extremely widely dispersed, rurally based organisation. This makes management and monitoring of its operations extremely challenging.

The Canterbury regional office was instrumental in consulting on the design of an internal programme to drive quality management into the day-to-day fabric of the company.

The intent behind the programme was based on an understanding of the importance of consistent and systematic compliance with the Home and Community Support Sector Standard (HCSS). This was particularly important as ACC had signalled its intention to make the HCSS the basis for the awarding of contracts after the 1 September 2005.

Working closely with Access' Canterbury regional office, the national operations manager, also based in Christchurch, designed and implemented the Quality Challenge.

This programme breaks the HCSS into bite-sized pieces that regional quality teams deploy to staff in two five-month cycles, intersected by a two-month staff satisfaction research project. Strengths and areas for improvement are identified and projects put in place to address compliance issues.

The Quality Challenge also creates an ongoing process of quality assessment and improvement identification that now forms the foundation of Access' quality function.

Canterbury region's 6-person Quality Team has identified and implemented a range of improvement projects since the Quality Challenge was launched in September 2004.

The results are evident in an extremely favourable independent audit of the HCSS standards, with no high risk areas of non-compliance and only 14 corrective actions (nine of these low risk and five moderate risk) identified.

*Contact Person: Kent Youard, Regional Manager, Access Homehealth*

## Vocera Paging Pilot at Christchurch Hospital

Emergency Department, Medical & Surgical Services, Christchurch Hospital and the Communications Technology Group, Information Services, Corporate Services

Christchurch Hospital Emergency Department (ED) is a busy workplace where clear communication is essential and many processes are time critical. The ED is one of the busiest in Australasia seeing approximately 70,000 patients per annum. The department operates in an environment where human resource, physical space and time are constrained. One of the biggest challenges is facilitating effective communication in a workplace that spans 4 separate geographic areas and has over 150 employees. The impacts of poor communication are many and include poor patient care, poor clinical safety, unhappy staff and general inefficiency.

The project sought to make the most of our staff resource by reducing time spent in wasteful tasks such as overhead paging and walking about trying to locate other staff members. Clawing back time spent with frustrating delays can free up staff to devote to more productive and purposeful activity. The Vocera Communication system provided us an opportunity to improve communications in ED, both within the department and externally.

The Vocera Communication System consists of two main components: the Vocera Software, the Vocera Communications Badge and the Communications Server. The badge is a small, wearable device, weighing less than 50 grams that permits quick, one-button voice access to other users on the system, or connects to outside phones through PBX integration. Each staff member wears a badge on duty and can instantly call or locate any other user on the system. Calls to internal and external phones can be made direct from the badge.

A program of surveys, activity logs and audits were commenced to study work practices before and after the installation of Vocera Paging. Specific work roles and tasks were targeted because they were known to have communication difficulties.

The outcomes measured were:

- Efficiency (time spent contacting staff on shift, walking distances on shift)
- Effectiveness (Success rate of contacting specific staff)
- User satisfaction (qualitative 10-minute survey)

The Vocera Paging System has benefits for a busy Emergency department that are immediately self-evident. The system relies on accurate voice recognition. Voice recognition was very good in general. In this type of application anything less than 95% accuracy would quickly be very annoying. The accuracy of the system is close to 98%.

Using Vocera to call direct between users and locate staff produced efficiency gains of between 3.5-22% in the quantitative studies in ED. The ergonomic

studies show that gains of 3.5 to 7% are being achieved and higher than 7% very possible with a software upgrade and further training. A conservative cost benefit analysis estimates productivity gains equating to \$155,000 per annum are being achieved now and that timesaving efficiencies equivalent to a total of \$345,000 per annum may be possible.

The efficiency calculations are not intended to reduce staffing but represent increased productivity. Improved safety is an inherent byproduct of the system but difficult to measure. It has been already acknowledged and quantified that the Christchurch ED is short on nursing and medical staff. These efficiency gains provide some relief to staff at times of intense pressure. The impact of Vocera on improving workflow and saving time is measurable and is significant. User acceptability and satisfaction are very high. Expanding the number of users, using more of the advanced functionality, and further integration of Vocera would continue to have a positive impact upon workflow, decreasing delays and speeding delivery of care.

*Contact Person: Dr Paul Gee, Consultant, Emergency Department*