“O nto bypass please”. These words are uttered daily by cardiac surgeons in operating theatres throughout the developed world. They signal the beginning of a “bypass run”, or more specifically, the heart lung machine taking over a patient’s circulation while the patient’s heart is stopped to allow the surgical team to repair or replace a malfunctioning heart valve, correct a congenital heart defect or bypass occluded coronary arteries.

We are so accustomed to such procedures being readily available they are now no longer newsworthy in Australia. In developed countries, governments and health authorities are held accountable if these advanced surgical facilities are not accessible to all. The awe of yesteryear at the thought of cardiac surgery has long since disappeared.

The complexity of a cardiac surgical operation, however, does not escape the mind of an outreach team operating in a developing country far from the security of an Australian or New Zealand hospital. The team faces not only the clinical challenge of the case in hand, but the challenges of operating in a third world nation. The infrastructure they are working within and their own preparedness will be questioned. Will the power supply be uninterrupted? Have we all the necessary instruments? Do we have adequate surgical supplies? Will the newcomers be able to cope with the conditions? Is it safe to be here? These and many more thoughts fly through the mind of team leaders and members of an Operation Open Heart team operating in a developing country far from the security of familiar surroundings.

Operation Open Heart is part of the Healthcare Outreach Program of The Sydney Adventist Hospital. The hospital has a long history of providing healthcare to disadvantaged communities. In May 2010, a team of volunteers undertook the hospital’s one hundredth outreach trip with a visit to the Fiji Islands. The hospital’s Health Care Outreach has provided assistance to 11 countries around the world.

Operation Open Heart is the name of the hospital’s volunteer based program whose aim is to provide cardiac surgery to patients in developing countries who would otherwise have no hope of accessing such services. Its inception was the idea of an intensive care nurse who was moved by the lack of life saving cardiac surgery in Pacific Island countries. Such was his dismay that he took it upon himself to provide such services. In 1986 largely, through a single individual’s efforts, the first group of volunteers travelled to Tonga in the South Pacific. The program has over the ensuing years expanded to involve other Pacific Island nations and many countries further afield.

In the 24 year history of the cardiac program, many Cardiothoracic Fellows of the College and Trainees have donated, and continue to donate, their time. In recent years, a further arm of the hospital’s outreach program has developed, and is termed the Reconstructive Program, involving Orthopaedic and Plastic Surgical Fellows of The College. The Fellows from all specialties who have become involved in International Outreach firmly believe they are making a contribution to the College International Development Program and helping to achieve social justice for all people. The hospital’s outreach program has helped 2850 patients with the involvement of over 1500 volunteers.

The original heart team volunteers were all directly associated with The Sydney Adventist Hospital. However, teams are now largely composed of individuals who simply identify with the ideals of the program’s charter and wish to contribute their services. Volunteers come from multiple faith traditions, multicultural backgrounds and any number of Australian and New Zealand Hospitals.

Each team is composed totally of volunteers who donate their skills and time, and make a substantial financial contribution to enable the program to continue. Over time, the aims of the program have broadened to not only provide immediate surgical services, but to train and educate the local medical, nursing and paramedical staff. Education and instilling the will to learn, to improve and hopefully to achieve self-sufficiency is now a primary aim of the program.
It is with great pride that the paediatric cardiac surgeons, who have made a commitment to Papua New Guinea (PNG), have at Port Moresby trained two local surgeons to be able to perform closed cardiac cases such as the ligation of a patent ductus arteriosus independently and without supervision. These same PNG surgeons, anaesthetists and ancillary staff are now training to perform more complex procedures requiring the use of cardiopulmonary bypass.

Through the influence of the visits of the Operation Open Heart team and the financial assistance of Rotary Australia, The Ministry of Health in Fiji has installed a donated cardiac catheterisation laboratory in the Colonial War Memorial Hospital in Suva. As a consequence the hospital administration has established a cardiac working party with the aim of examining the feasibility of establishing a cardiac surgical unit. In other countries self-sufficiency has been achieved and a mentoring role only is required. The members of teams aim to teach with a combination of didactic lectures and bedside teaching at all opportunities as well as demonstrating surgical techniques.

Through the auspices of the AusAID funded Pacific Island Project of The College, the Open Heart Program receives some financial assistance. However, the main sources of funding originates from the Sydney Adventist Hospital itself, volunteer contributions, generous assistance from the medical supply industry, community service organisations and private donations and, where possible, a contribution from the government of the nation visited. Financial assistance remains, and will continue to remain, a significant issue for all international outreach programs. The recent global financial situation has unfortunately negatively influenced all avenues of financial assistance.

OPERATION OPEN HEART TEAMS

Unlike many other surgical specialities, cardiac surgery requires a multidisciplinary approach and as a consequence each team numbers 40 to 50 members. At the completion of the surgery, the patient requires intensive care management and nursing. This requirement is generally not available in developing countries that require such a large number of volunteers. Not only is the appropriately trained staff not available in developing countries, but the necessary equipment is also not available. As a consequence, surgical instrumentation, anaesthetic machines, cardiopulmonary bypass pumps and ancillary equipment, ventilators and monitors all need to be transported. The inventory also includes expensive pharmaceuticals and artificial heart valves. This equates to many tonnes of equipment and a logistical and financial nightmare.

Each Operation Open Heart trip begins many months prior to the actual departure date. The requesting nation is asked its specific requirements and the team and equipment planned accordingly. Local cardiologists have a list of patients they feel would benefit from surgical intervention. These patients are then reviewed and further assessed by the Open Heart team cardiologists and their suitability discussed at a multidisciplinary team meeting. All attempts are made to review the patient data and patient selection largely agreed upon prior to departure; however, this is not always possible. Many patients with complex congenital lesions or advanced acquired conditions, which in Australia or New Zealand would be considered operable, but high risk, are not able to be offered surgery. Patient selection is one of the greatest moral, ethical and emotional challenges faced by senior team members.

Many critics of international outreach would say that transferring patients to a hospital or country where cardiac surgery or other specialised surgery is available would be preferable. For the majority of developing nations such costs would be prohibitive and only a few privileged patients would be able to access tertiary referral. Operation Open Heart hopes to offer the opportunity to those patients and their families in genuine need who would otherwise not be in a financial position to access cardiac surgical services. The loss of the education would further add to the loss of health care outreach.

The effect on the local staff of the presence of a visiting medical team in a hospital needs to be personally experienced to be believed. The expectancy, the excitement and the morale boost it generates are intangible. The camaraderie between team members, the cleaning of walls and floors, the organisation and preparing of wards and equipment are all used as teaching opportunities. Additionally it allows bonds to be forged at a level other than politically.

The majority of individuals find the experience of participating in an outreach trip so uplifting they wish to continue to contribute their efforts. When questioned they often lack the words to describe the reasons. One can only surmise that the experience of helping fellow human beings far less fortunate than oneself has a powerful effect on the human spirit.

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