The Endless Chain of Transplant
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From the Chief Nursing Officer

NANCY J. LEE, RN, MSN,
CHIEF NURSING OFFICER, VICE PRESIDENT, PATIENT CARE SERVICES

This issue of Stanford Nurse focuses on our transplant services and highlights the key role of nurses in this complex area of practice. As you will read, the road to a successful transplant is a bit like the story of “hurry up and wait.” An individual’s health status becomes so dire that the only path back to health is an organ or blood and marrow transplant. After being rigorously evaluated for transplantation, patients typically wait…and wait and sometimes wait some more. During this period, the nurse coordinator becomes the lifeline for these patients, using all of his or her skills to support the patient. And as several of the authors of these stories point out, transplant patients are patients for life, developing relationships with their nurses during the pre-transplant period that continue after the transplant is complete. Nurses continue to provide the care and support needed to keep the risk of rejection and complications as low as possible.

My hat is off to this incredibly committed and passionate group of nurses who demonstrate nursing excellence with a caring heart. I am sure you will enjoy their stories and their journeys.

Nancy Lee

Nursing care touches people at crossroads in their lives. It takes many forms and many functions: the nurse as leader, the nurse as teacher, the nurse as advocate, the nurse as coach. The nurse coordinators at Stanford Hospital and Clinics take on all of these roles for our patients every day.
Webster’s dictionary defines a chain as “a series of links connected together.” Transplantation links nurses to each other across various specialties. We see life begin, we help patients during the most challenging times of their life and, unfortunately, we do see life end.

As transplant nurses, we experience this chain of events in a very short period of time as one family’s tragedy becomes another’s new beginning. The beauty of transplant is that it creates an endless chain from death to new life. Transplant nurses use their passion for this specialty to hold the links of the chain together.

**A Multidisciplinary Approach**
Our transplant teams use a multidisciplinary approach to best serve our patients. Transplant encompasses the medical center as a whole with various individuals playing integral roles, from patient care coordinators who help with the initial intake, to our social workers and surgeons. The participation of unit nurses and specialty nurses all contribute to the care of the transplant patient. How else would the patient who has end-stage renal disease receive dialysis? Or the end-stage liver patient receive an endoscopy or chemo embolization? Many of our transplant patients are granted cardiac clearance for surgery after they have visited our cardiac catheterization lab. Radiology assists us with crucial biopsies. Of course, there would not be transplant without the contributions of the operating room nurses and staff. On a larger scale, without the support of the United Network of Organ Sharing (UNOS) and The California Transplant Donor Network (CTDN), organizing transplants would be an impossible task. These federal organizations help establish guidelines and protocols to ensure that our transplant patients receive excellent, quality care, and that organs are distributed as fairly as possible.

**Organ Allocation**
The transplant nursing role is quite complex and varies from organ to organ. While heart, lung, and liver transplantations help save lives, the kidney transplant enhances the quality of life for patients. Patients waiting for a kidney transplant can continue with dialysis while they wait for their name to approach the top of the list for a donor organ. Kidneys are allocated by waiting time and blood type in our region. A transplant coordinator facilitates patient care throughout all phases of transplantation. Our goal is that our patients will travel through the chain links of transplant and enjoy a better quality of life.

**A Long-Term Relationship**
The endless chain of transplant helps to create and establish long-term relationships with patients and their families. A person who receives a transplant is a patient of our transplant program for life. Patients are followed from referral for transplant for as long as the transplanted organ functions. If the organ fails, the patient may be relisted for another transplant and the chain continues. Pretransplant education begins and continues as we try and maximize patient function as much as possible. In the case of cardiac transplant, the focus is to bridge patients adequately until the transplant can occur. Intraoperatively and during the hospital stay, we focus on surgical issues and education, as patients begin to grasp the reality that their life has changed forever. Postoperatively, healing begins and education continues as patients learn to live their new life. During the post transplant period our patients have to adjust to life on immunosuppression and the consequences that come with it. Rejection of the transplanted organ can happen at any time, and is a patient’s worst nightmare. We celebrate our patients’ successes, and we empathize with their disappointments. We derive much satisfaction from knowing that we have tried our best
to positively impact someone’s life forever.

**A Roller Coaster of Emotions**
This endless chain creates a roller coaster of emotions for our patients and their families. As patients complete all appropriate medical testing to clear them for surgery, they are continually reminded that transplant is a treatment and not a cure. We are engaged in a continual balancing act between rejection and infection with immunosuppressive medications. Diseases can reoccur and organs can fail. Patients must be diligent with their medication regimen and lab work. We give them the tools to change their lifestyles and remind them of the importance of staying healthy. Patients are very thankful for all that is done for them, and they cherish the gift of life that they have been given.

The endless chain continues on the following pages as each transplant program highlights its individual features. As transplant nurses we are lucky enough to be part of the happy chain links, but we are also here to give support when the strength of the links is tested. It is an amazing experience to be a part of this endless chain.

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**The Role of Endoscopy in Transplant Patients**

CASEY PATALANO, RN  
STAFF NURSE, ENDOSCOPY DEPARTMENT

Endoscopy provides pre-transplant colon cancer screening for most patients who receive liver transplants. We also perform esophageal manometry for patients prior to lung transplant to screen for scleroderma in the esophagus.

Endoscopy plays a vital role post transplant. One of the most frequent complications occurring after liver transplantation is the choledocho-choledochostomy stricture. ERCP (endoscopic retrograde cholangiopancreatography) is used not only for the diagnosis, but is also used to provide an effective and relatively non-invasive treatment of the stenosis. Using both balloon dilation and stenting of the bile duct, biliary flow improves. Stents are replaced every three months, usually for a one-year period.

There are conflicting results in the literature on the incidence of colon cancer in solid-organ transplant recipients. Due to chronic use of immunosuppressives and longer survival, these patients are at higher risk of developing malignancies. Within the first few years after transplantation, colorectal cancer appears in approximately 7% of patients with inflammatory bowel disease and ulcerative colitis who are transplanted for primary sclerosing cholangitis. For this subset of liver transplant recipients, annual surveillance is recommended.

GVHD (Graft-versus-host disease) and opportunistic infections such as Herpesvirus infection, cytomegalovirus, and fungal infections are a major cause of morbidity and mortality after allogeneic blood and marrow transplantation. Gastrointestinal GVHD cannot be accurately diagnosed from its clinical presentation. Endoscopic biopsy with histological and microbiological examination of tissue is essential for diagnosis in this patient population.
Nurses are many things. We are teachers, caregivers, emotional supporters, spiritual advisors and hand holders. We are patient advocates, physician liaisons, and most importantly, the first line assessor of patient’s signs and symptoms. We constantly balance compassion with critical analysis to determine what patient care issues need escalation to physician intervention or amelioration through nursing interventions.

A Delicate Balance
As a registered nurse for almost 29 years, I have learned this delicate balance in many settings: as a critical care bedside nurse in the ICU, nurse manager of forty full-time staff nurses, and nursing house supervisor for a 110-bed hospital.

However, for the last 13 years I have held the most gratifying and challenging nursing role – that of heart transplant nurse coordinator. In this position I have had the opportunity to balance many aspects of nursing including research, advanced practice, patient education and nursing mentorship.

General cardiologists refer potential heart transplant recipients to Stanford’s heart failure group. Often these patients come to Stanford as a last resort. Although they have lived with heart failure for many years they know that they are now in the last stages of the disease and are usually frightened about the future. The only thing that is certain is that they have a very uncertain future ahead.
**A Life-Long Relationship**

Upon arrival at the hospital for cardiac transplantation the patient and family begin what will become a life-long relationship with the post-heart transplant team. The average life expectancy for a heart transplant patient is 90% at one year, 85% at three years and 75% at five years. But whatever their life span after transplant, transplant patients are followed throughout their lives, and trusting bonds and close relationships are established and strengthened over the years.

The commitments to which a pre-transplant patient had readily agreed often lose their urgency and significance after surgery. The concept of taking a minimum of 10 medications twice a day seems like a small price to pay when the patient knows that he or she is dying. But post-transplant, upon regaining his or her energy and sense of health, 20 pills per day feels like a burden and is a nagging reminder of the patient’s mortality. Some patients become overwhelmed with the knowledge that their new life comes at the loss of another. The adjustment from putting one’s affairs in order and shifting resources to cover the increased costs of medical care to resuming a healthy lifestyle leads to a multitude of conflicted emotions. As the patients embark on their new journey living with a transplanted heart, the nurse coordinator functions as a tour guide providing a great deal of educational and emotional support.

**Navigating a Complex System**

Assisting the patient in navigating the complex healthcare system is time consuming but necessary to expedite care and ensure positive outcomes. An average routine post-heart transplant patient will initially require a minimum of two clinic visits, two chest x-rays, two blood draws, a one- to two-hour IV infusion in the ATIC, a biopsy in the Cath Lab and an Echo per week. Our patients have a unique relationship with the Stanford Hospital and Clinics community as they regularly interact with the laboratories, radiology, cardiac cath lab, nuclear medicine, echocardiograms, electrocardiogram and cardiology. All of this testing requires initiation, coordination and follow-up by the nurse coordinator. Upon returning to their home community the nurse coordinator continues to be a liaison with local health professionals. The nurse coordinators are an integral part of coordinating all aspects of their patient’s care.

Heart transplantation does not focus solely on cardiac issues; most patients have a myriad of complex conditions including diabetes, renal insufficiency, thyroid abnormalities and psychiatric disorders. A day in the life of a heart transplant coordinator most of all requires flexibility and an ability to communicate with a multitude of disciplines. In a normal day the transplant coordinator will spend half of her day on the phone communicating with other providers, pharmacies, insurance carriers, patients, caregivers and Stanford departments.

Being a transplant coordinator is an extremely rewarding position. I am able to help critically ill patients obtain a new lease on life and to make a difference in their survival and quality of life.

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**Meeting Many Demands**

Post heart transplant patients are required to relocate near Stanford for the first three month after surgery. They have a complicated medical regimen that requires a dedicated support system of caregivers who become crucial to the patient’s success and survival. Often the demands of medication management and regular appointments are overwhelming for both patient and caregiver. Most caregivers are spouses or significant others thrust into an unfamiliar geographical location. They are expected to understand complex medications and tests and procedures that may include performing home dressing changes. Frequent contact and a reassuring word from the transplant coordinator alleviate these caregiver’s fears.

The caregivers and patients need to recognize signs and symptoms of potential problems including rejection. They are educated that it is their job to report any sign or symptom but not to determine if it is a rejection. The nurse coordinator often functions as a phone triage nurse determining which symptoms require intervention and physician involvement and which can be dealt with over the phone.

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*Kathy Town, RN, BSN, CCTC*
On November 18, 2008 I met with Allan and Josephine, who were admitted to G1 for the final rounds of testing in preparation for their surgeries, and made sure they were both ready to move forward with chain transplant as previously planned.

Allan had known about his kidney disease since 1985 but did not need dialysis therapy until June of 2008. In the absence of the availability of a living kidney donor, he would have to wait for almost six years for a deceased donor transplant. Allan’s wife, Josephine, was an ABO incompatible donor to him. However, she volunteered to donate her kidney through the chain transplant program to a stranger. She knew that through this Allan would receive a kidney from a stranger, who was also an incompatible donor to his or her loved one. In return, Josephine’s kidney may improve a stranger’s quality of life.

The never ending chain, involving one of our patients and donors, has connected us to various members of different organizations in the country for the past few months. Today, I started my day at 6:00 a.m. to ensure that all the links of the chain were in place and will operate as planned. Allan is to receive a kidney from a living donor who will have his nephrectomy at UCLA, Josephine’s kidney will be shipped for a recipient at New York Presbyterian - Cornell, and the kidney from the living donor at Cornell will be shipped for a recipient at California Pacific Medical Center (CPMC).

I first contacted the transplant nurse coordinator at UCLA to verify that the living donor nephrectomy, for Allan, had started. Arrangements for transporting the kidney from UCLA to Stanford had been made by One Legacy, a local organ procurement agency that serves southern California. I was informed that a ground courier would deliver the kidney from UCLA to a local airport; the kidney would then be placed on a Southwest flight to San Jose International Airport at 11:30 a.m. A ground courier would deliver the kidney to the Stanford OR at 12:30 pm.

At 6:30 a.m. I verified with our OR staff that Josephine’s nephrectomy had begun. With the help of California Transplant Donor Network (CTDN), the local organ procurement agency that serves northern California, arrangements had been made to transport Josephine’s kidney to Cornell. A representative from CTDN would be at the Stanford OR at 8:30 a.m. to assist with packaging. The ground courier would be at Stanford at 9:00 am, ready to deliver Josephine’s kidney to San Francisco International Airport. Depending on timing and air traffic, the kidney would arrive between 10:00 p.m. to 11:00 p.m. at Cornell.

At 8:00 a.m. I started rounding to make sure everything was in place as planned. My first stop was the OR. The surgery was going as planned and the CTDN representative had already arrived to assist with packaging. The OR staff knew Josephine’s kidney would be shipped to Cornell, and the kidney for Allan would arrive from UCLA around 12:30 pm. I then visited E3, Josephine’s post-op unit. The nurse manager, resource nurse, and Josephine’s nurse were all aware of Josephine’s participation in the chain transplant. Afterward I went to G2S, the unit where Allan would go post-op. Staff
on G2S were also aware of Allan’s participation in the chain transplant.

Around 10:00 a.m. the transplant coordinator at UCLA called me. I was a bit nervous because I thought something had gone wrong. She said the kidney for Allan would arrive at the Stanford OR at 2:25 p.m. rather than 12:30 p.m. – just a bit of a delay. With much relief, I then updated our OR staff with this new information.

During each step of this donor chain transplant, I tried to follow the paths of the two kidneys (Josephine’s kidney to Cornell and a kidney for Allan from UCLA) as closely as I could. I confirmed with the ground courier when each kidney was picked up from the donor hospital and delivered to the local airport and when each kidney was picked up from the local airport and delivered to the recipient’s hospital. At one point during this process, all three kidneys (kidney from UCLA to Stanford, kidney from Stanford to Cornell, and kidney from Cornell to CPMC) were en route in the air.

The beauty of this donor chain transplant and other kidney transplants is that each department contributes a vital link to the chain. Without the staff from laboratories and radiology, we could not do the necessary studies. Without transplant staff, living donors and recipients could not be evaluated. Without OR staff, surgery could not be performed. Without nursing staff, living donors and transplant recipients could not be cared for after surgery.

On November 19, 2008 Allan received his living donor kidney transplant. Thanks to each link in the chain, Allan is living a normal life without dependency on dialysis.

From the patient’s perspective

I recently asked Allan and Josephine about their hospital experiences. Both of them had a positive experience. Allan said the nursing staff at G2S was “great” – “attentive, friendly, and accommodating.” Two months after being discharged from the hospital, Allan visited the staff on G2S to thank them personally, and remarked that “they remembered me.”

Josephine was very happy with the nursing staff on E3. Josephine said, “It was my first experience as a patient and I could not ask for more.”

Living organ donation is considered one of the most unconditional gifts one can provide to a loved one. It is one of the noblest gestures by anyone for which no compensation is known to this date. No surgery is without risks and pain, and time and commitment are required from donors to undergo the evaluation process and to recover from the surgery. Yet our donor, Josephine, said that the procedure was “worth all the pain... I’ve personally never had major surgery in my whole life,” she said. “The idea really scared me. At the same time, I knew it was something that had to be done. I had no doubts the whole time.” Better success rates and a shorter waiting time are advantages of having a living donor for patients in need of a kidney transplant. Chain transplant provides an opportunity for incompatible living donors to provide the gift of life to their loved ones indirectly and to help another patient at the same time. As Josephine reflected, it was nice to know that her kidney is helping someone else, thanks to Cornell University professors at New York Presbyterian. “I’d always wanted to go to Cornell,” Josephine joked. “I didn’t get accepted to the undergraduate program, but my kidney got accepted.”
Giving Patients a Second Chance
Some patients with potentially fatal diseases such as end-stage renal disease, end-stage liver disease or heart failure are lucky enough to get a second chance at life with an organ transplant. Their care during this critical time is usually coordinated by a transplant nurse coordinator. I really enjoy helping these patients get that second chance. It is a joy to see their quality of life improve and satisfying when they can return to the rhythms of their former life. As transplant nurse coordinators we organize and administer the care of potential organ recipients throughout the transplantation process. Many of our responsibilities include providing education and support to our transplant patients and their families.

From Making the Arrangements...
On a typical day we coordinate a patient’s work up for a liver transplant, which includes scheduling a physician consultation, ordering lab tests, communicating with the patient’s numerous doctors, and gathering all of the information for the transplant hepatologist to review. Once the patient is considered a good candidate for a transplant, he or she is placed on the center’s waiting list (UNOS). Most of our time is spent coordinating the care and appointments for transplant patients. Our patients typically wait months to years for a potential donor. We never really discharge a patient, once we have a patient, we have them for life. As a result, we form strong, long-term relationships with our patients and their families.

On Mondays and Thursdays, the nurse practitioner’s (NPs) and transplant nurse coordinators see patients in the clinic. On Tuesdays, we meet with the Transplant Committee where it is determined if a patient meets all of the criteria to be placed on the waiting list for a new liver or liver and kidney. On Fridays, our transplant team has a radiology conference, a process where we review the results of CT Scans and MRIs. Our transplant team also meets in the afternoon to discuss hospitalized patients. The inpatient NP/Coordinator spends the morning doing rounds with the transplant team and the afternoon is usually spent doing abdominal paracentesis. We also have on-call responsibilities from one to three times a week. When we get a call from UNOS, typically at night, we call our patients and their families to notify them that we have an organ offer. We also notify team members, call the hospital’s staff to prepare the patient for surgery, and schedule the operating room, typically making between 10 and 20 telephone calls to make all of the arrangements. We rarely sleep on these nights.

…to Educating our Patients
For many transplant nurse coordinators, patient education is a tremendously important part of the job. We spend a great deal of our time educating patients in person and over the phone. We provide them with books and instructional materials, often reviewing the information with them several times. Transplantation is an overwhelming process and patient education is ongoing. It means not only informing organ recipients about the transplant process but about staying healthy after receiving a new organ. We continually remind our patients that transplantation is not a cure but a treatment.

Continued on page 11
The Adult Lung and Heart-Lung Transplant Program:

Led by Dr. David Weill, the program strives to maintain the highest quality of patient care with the best outcomes. Nationally, the one-year survival rate for lung transplant recipients is about 86%, and the five-year survival rate is 50%. “We strive to keep our survival rate above the national average,” says Dr. Weill. The team consists of attending physicians, fellows, nurse coordinators, social workers, diabetes educators, pharmacists and nutritionists. Each of these disciplines plays an integral part in transplant patient care at Stanford.

The Nursing Team

Our transplant nurses are part of the pre-transplant team and the post-transplant team; the post-transplant team has separate inpatient and outpatient teams. It takes the entire team to manage this challenging group of patients, and good team work and collaboration are necessary to successfully guide our patients towards the best outcomes possible.

Our pre-transplant nurse, Lisa Levin, RN, MS, has been with the heart-lung transplant team since 1993. While always coordinating the pre-transplant program, Lisa initially worked as a donor nurse, flying out with the procurement teams. Later, she worked with the newly transplanted lung and heart transplant patients, followed by a time in the outpatient clinic. Lisa is responsible for coordinating the intake of newly referred patients, working with the referring physicians and the patients and their families to evaluate their medical suitability for transplant.

In conjunction with administrative assistant Thu Vu, Lisa facilitates the comprehensive evaluation including appointments, lab work, and studies that provide the information the medical and surgical teams need to assess candidacy. Lisa provides education, and along with the social workers provides counseling to the new patients and their families. She acts as a resource to physicians and staff. In her weekly clinic, Lisa and the physicians see new patients and monitor hundreds of patients who either return for ongoing observation prior to listing, or who are listed for transplantation. Lisa manages the transplant list and ensures that all procedures outlined by the United Network for Organ Sharing are followed.

Lisa reflects, “Even though I have been doing this job as a coordinator for a long time, I have not found any other job that offers so many challenges and rewards. It is gratifying to help a terrified patient referred for evaluation transition to a confident transplant candidate, and then eventually see them so happy after their transplant. Sometimes there are the sad or challenging days, but the good days far outweigh them. I can’t imagine working anywhere else!”

From the In-Patient Setting...

The inpatient group includes our two nurse practitioners, Mary Martel, MSN, NP, and Laura Starr, RN, MSN, NP. Mary Martel is the lead coordinator who joined the team in 2007 as the first nurse practitioner in our program. Prior to lung transplant, she worked in Riyadh, Saudi Arabia, at King Faisal Specialist Hospital & Research Center, helping establish a heart transplant program.

Laura Starr joined our group in 2008. She practiced as an ICU-CCU nurse prior to being a nurse practitioner. She was fortunate to have her final clinical rotation in the Lung Transplant service. “I particularly like this position because it allows me to be involved in different aspects of the continuum of care. I enjoy seeing the patients right out of the operating room as well as when they are thriving well in the outpatient setting. It can be tough when we..."
have patients with multiple re-admissions, but I enjoy helping them through the difficult periods. Granted there are good days and bad days, but at the end of the day I love my job here.”

Mary and Laura collaborate with our transplant fellows and attending physicians on daily medical issues until the patient is ready for discharge. They instruct patients about new medications, outpatient procedures, signs and symptoms of rejection and infection, and encourage emotional and psychological readiness for discharge to home.

To the Out-Patient Setting – My own perspective
Home management is key for transplant recipients. Patients are discharged to their home environment after transplantation with the goal of going back to society and living a full life without any signs and symptoms of disease.

Being a CCU nurse for 17 years, I had always been dependent on monitors and machines that would tell me how a patient is doing internally, how dehydrated a patient is, how hypoxemic, and I could intervene and deal with it right away. When I switched to this job, I now rely on my assessment skills mostly based on subjective clues and data. I have developed keen and sharp hearing; it’s limited data but nevertheless valuable.

What is great about this job is that we are able to take care of the patient holistically; we deal not only with their disease entity but get to know the entire family as well. From the time the patient is symptom-free, we get to witness their second chance to live a full and happy life. It is rewarding knowing that I am part of a group that made it happen.

Paggy Wang joined our group in 2007. She performed various roles prior to this including home health nursing and bed control. She also worked with a biotech company doing clinical research. Paggy has an MBA and contributes her business knowledge by organizing data and developing a variety of tracking tools used by the whole team.

“Developing a tracker helps me to organize data and keep track of patients’ hectic schedules,” Paggy says. “It helps me to have an easy view of their significant data and to follow through on their clinic appointments and procedures, scheduled blood draws, surveillance bronchoscopies, referrals and appointments. The tracker helps me to stay focused on the various roles and multi-tasking that is required as a transplant coordinator.”

Millicent Gerken, RN, joined our group this year after eight years of cardiovascular ICU nursing. She chose to make the leap from inpatient to clinic nursing because she felt drawn to this particular patient population and wanted to be involved in their care in a more holistic manner.

Millicent says, “As a nurse in North ICU, the face of the lung transplant team at Stanford was its attending physicians. These physicians are all well known on our unit, and my experiences with them greatly contributed to my decision to join their team. I find the attending physicians to be approachable, thoughtful, well-organized and enthusiastic.”

The Medical Team
Our medical staff consists of four attending physicians: Dr. David Weill, Dr. Gundeep Dhillon, Dr. Rama Sista and Dr. Mark Nicolls. Our two transplant fellows this year are Dr. Kapil Patel and Dr. Reinaldo Rampolla. Our nurse coordinators work closely with them on all matters related to both inpatients and outpatients on the pre- and post-transplant sides. Dr. Patel notes, “I love working with people who are down to earth, compassionate and willing to walk an extra mile for patients,” while Dr. Rampolla says, “I like our lung transplant program not only because the patient population at Stanford is very diverse but also because of the well-rounded training program.”
Our Multidisciplinary Staff

Our medical social workers, Tonia Gregory and Lesley Seeger, play a vital role in the psychological, social and emotional well-being of the patients. The psychology of both life-threatening illness and transplant – which some view as trading in one illness for another – is multi-faceted and complex, as are the social needs of our patients, many of whom have limited resources.

Our pharmacist, Terri Nghiem, participates in daily rounds with the transplant service to monitor and review medication dosages, laboratory tests, drug efficacy and adverse events. She helps both the team and patients to manage and adjust medications according to induction, prophylactic, and treatment regimens.

Our diabetes educator, Anna Simos, has been with the heart and lung transplant team since 1998. She is responsible for diabetes education and management for transplant recipients with a focus on encouraging the patient to be more proactive in their diabetes management while at the same time promoting their independence.

Our clinical transplant nutritionist, Heather Schwartz, MS, RD, is responsible for patients’ diets and nutritional needs for both our inpatient and outpatient population. She works very closely with our diabetes educator. Heather says, “What I like best about our lung transplant team is our group dynamics: we are friends first, then coworkers, with a great mix of seriousness and laughter, leadership and mentoring.”

Finally, our patient transplant coordinators work closely with our two administrative assistants who play important roles with home management. Krystina Beagle has been with transplant for 22 years. She keeps our charts and data organized for easy access and facilitates gathering data such as laboratory values for patients who get their blood drawn outside Stanford. She also helps in scheduling patients who are due for their surveillance bronchoscopy. Thu Vu, aside from facilitating pre-transplant evaluation with Lisa Levin, also helps out in scheduling post-transplant patients for their annual clinic visits.

Since our program commenced in 1981 it has remained strong and vibrant. It is now revitalized with strong leadership, good teamwork and a wonderful sense of camaraderie among team members.

Liver Transplant, continued from page 8

and that the same thing that can cause a liver to fail the first time can cause it to fail again. We also teach our patients about preventing diabetes and hypertension.

Culturally Sensitive Transplant Nursing

Transplant nurse coordinators come from varied cultural and ethnic backgrounds and treat an equally diverse patient population. We recognize that each culture is unique and that we should allow each family the time to express their feelings and concerns. For instance, we know that some of our Asian patients, who are primarily an immigrant population, are taking traditional herbal remedies to combat their illness. Yet for patients who have end-stage liver disease, some of these herbs can do more harm than good. We always make sure to ask patients about their alternative therapy practices and, when necessary, try to convince them to stop taking the herbs.

Why Being a Transplant Nurse Practitioner Is So Special

The best thing about working for Stanford’s Liver Transplant program is the people. The people who work here are all very passionate about what they do and they provide the best care possible for our patients. I really enjoy our liver transplant team as well as so many other phenomenal support staff such as the patient care coordinators, front desk, and the IT department. There are many different personalities, varying perspectives, and incredible expertise, and we all come together to decide what is best for each individual and their family. I also love the continuity of my job: meeting the families pre-transplant, having the opportunity to call families when an organ offer is available, and becoming their key contact person at the time of transplant and for years following their transplant. We have many opportunities to get to know our patients and their families. We love to watch them do well. It is truly amazing to be a part of Stanford’s Liver Transplant program.
The transplant nurse in Stanford’s Operating Room is involved in lung, heart, liver, kidney, pancreas, and small bowel organ transplantation.

An extensive preparation in the operating room (OR) takes place prior to the organ recipient’s entry into the surgical suite. It must be a collaborative effort between the nurse, surgeon, physician assistant, anesthesiologist, perfusionist, and the ancillary staff. Each professional has a specific role to fulfill to make this approximately six-hour procedure a success.

The process begins as the surgeon calls the operating room to inform us of a specific transplant surgery or case to add to our surgery schedule. No matter what other surgeries are scheduled that day, the transplant patient has top priority. There is always an operating room available for transplants.

When we receive the organ from an anonymous donor or from a living related donor, it comes by courier. Blood from the donor is also sent to the transfusion department to double check the blood for patient/recipient compatibility. When this is complete, we are ready for the patient.

In a brief couple of minutes, it is very important for us to establish a relationship of trust with our patients. We need to convey that we are competent, caring, and compassionate, and that we will act as their advocate. We are the patient’s voice while he or she is under anesthesia.

The circulating nurse positions the patient for surgery, supports anesthesia, delivers supplies and instruments to the sterile surgical field, documents, troubleshoots intraoperative problems, etc. The scrub nurse is responsible for watching the sterile field, having the correct surgical instrumentation for the procedure, and handing sterile instruments to the surgeon.

Whatever role the surgical transplant nurse assumes, the most fulfilling moment is when we realize that we are part of a team that has significantly improved a person’s life. Although we do not see our patients post-operatively, it gives us great pleasure when the surgeon tells us our patient is doing well.

Our faces behind the masks need not be seen by our patients…with our caring eyes, healing touch, and soothing voice we hope our patients know how much we care.
Honoring Excellence

Mary Lough

The Society of Critical Care Medicine (SCCM) proudly announces Mary E. Lough, RN, MS, CNS, CCRN, CNRN, as the winner of the 2009 Norma J. Shoemaker Critical Care Nursing Research Grant. Ms. Lough is a Clinical Professor in the Department of Physiological Nursing at the University of California, San Francisco, and a Critical Care Clinical Nurse Specialist at Stanford Hospital & Clinics. She has spent almost two decades working as a critical care clinician and educator. Her knowledge of the clinical issues is now being enhanced by the research skills and knowledge she has acquired in the doctoral program at the University of California, San Francisco. She has augmented her research knowledge about design and statistics with an intensive course in genomics at the National Institutes of Health. Chosen from many outstanding proposals, Ms. Lough’s research is titled, “Epigenetic Contributions to Delirium in Mechanically Ventilated Patients.” The grant is given to support the research studies of an SCCM nurse member and was created to encourage research in critical care nursing and provide funding for the continuation of research endeavors. In addition to receiving a grant for $15,000, Ms. Lough was honored at the 2009 SCCM Critical Care Congress in Nashville, Tennessee.

At Stanford, Mary is a member of the Delirium Management Process Excellence Task Force. This multidisciplinary team is establishing evidence-based assessment and prevention strategies to limit or prevent delirium in patients over 65 years of age. Mary says that it is very rewarding to work in an environment that both implements evidence-based practice related to delirium prevention, and supports nurses to conduct research into possible mechanical and solutions for critically ill patients.

Garrett Chan

Garrett K. Chan, APRN, PhD, CEN, FAEN, is the Lead Nurse Practitioner and Clinical Nurse Specialist in the Emergency Department and was inducted into the Academy of Emergency Nursing (AEN) of the Emergency Nurses Association (ENA). AEN fellowship is a prestigious honor recognizing emergency nurses for their contributions to patient care in and out of the emergency department.

The Academy of Emergency Nursing was constituted on September 28, 2004, to honor nurses who have made specific, enduring, substantial and sustained contributions to the field of emergency nursing; who advance the profession of emergency nursing, including the healthcare system in which emergency nursing is delivered; and who provide visionary leadership to ENA.

Dr. Chan was recognized for his enduring contributions in three areas. First, he is recognized as a leader in research and education in the area of palliative and end-of-life care in the emergency department. Second, he has advanced the understanding and articulation of clinical nurse specialist practice in emergency care settings. He currently is the Chair of the Clinical Nurse Specialist Work Group of the Emergency Nurses Association. Lastly, his work has helped advance the research agenda in emergency nursing. He is the Chair Elect of the Institute for Emergency Nursing Research in the Emergency Nurses Association.

“Garrett Chan has exhibited the kind of leadership and excellence in patient care that exemplifies the very best of emergency nursing,” said Denise King, RN, MSN, CEN, president of the Emergency Nurses Association. “His service to his patients, the profession of nursing and the Emergency Nurses Association has been spectacular and it is an honor to have him as a fellow of the Academy.”
Cultural curiosity is nurtured at Stanford Hospital and Clinics and contributes to a stimulating work environment that encourages exploration of other cultures. Therefore, I was excited to receive an invitation to travel to South Africa with nurse leaders from across the United States under the auspices of People to People Citizen Ambassador Program and the American Organization of Nurse Executives (AONE). The delegation, lead by AONE President Carol Watson, PhD, RN, and AONE Executive Officer Pamela Thompson, MS, RN, FAAN, would participate in a unique forum and exchange ideas with their counterparts about the challenges and successes associated with healthcare delivery systems, healthcare needs, patient care and workforce requirements.

South Africa has a shortage of nurses as many leave to work abroad. In addition, according to the National Health Bill of 2001, South Africa’s Health Plan provides decentralized primary healthcare to all citizens. To put this goal in perspective, one director of nursing at a for-profit hospital said they had a 25% shortfall of RN’s that was partially met by hiring RN’s from India. Nursing faculty at the University of the Western Cape explained that professional nurses must obtain a baccalaureate degree while staff nurses are trained as technical nurses (equivalent to an LVN in the US). They described their curriculum model, goals to meet the health needs, changing demographics of the students, practice differences and differentiation among levels of nursing. The South African Nursing Council (SANC) provides initiatives to recruit and retain nurses.

Visits to for-profit and non-profit hospitals and clinics surrounding Johannesburg (serving 9.5 million) and Cape Town (serving 3 million) helped expand our understanding of South Africa’s healthcare situation. Healthcare needs include HIV/AIDS, chronic diseases such as tuberculosis, hypertension and diabetes, malaria, other diseases related to lack of sanitation, and family planning.

The treatment of HIV/AIDS consumes a large portion of the country’s healthcare resources. At the end of 2007, there were approximately 5.7 million people living with HIV in South Africa. Although more prevalent among the poor, HIV is present across all sectors of South African society. One creative solution was observed at the Ennerdale SOS Children’s Village. SOS is a non-profit organization that uses a village model, including small group homes for children orphaned by HIV/AIDS. In addition to social support, parental surrogates called “Aunts” and the new hospice facility, an outreach effort called the Family Strengthening Program, helps other families remain in the surrounding villages. Given that heads of households range in age from 12 to 90, the program provides counseling and helps families with decision-making related to meal preparation, clothing needs and school requirements.

In the immediate future, the country is preparing to host the 2010 World Cup celebrations. This has sparked teamwork and cooperation among the three primary cultural groups in projects designed to improve the overall standard of living of many South Africans by building infrastructure, tourism and tourism-related small businesses. Community-based entrepreneurial efforts have provided economic self-sufficiency in the townships and rural areas. When traveling one expects to notice differences and see contrasts. In the case of South Africa, I saw signs of recuperation from the turmoil associated with apartheid. The country is beautiful and the spirit of renewal is evident when speaking with South Africans of every group. We left feeling hopeful that the South Africans will be able to achieve many of their goals.
What to Do When the Fog Rolls In?

Early Recognition and Intervention for Delirium

BETH SANCHO-BONET, RN, NORTH ICU
ANNE KLEVAY, MSN, PMHCNS-BC, PSYCHIATRY
MARLENA KURUVELLA, PROGRAM MANAGER, PROCESS EXCELLENCE

Delirium is a medical emergency and is becoming a priority for hospitals across the nation. As we begin seeing this serious condition coming to the forefront of our practice, it is important that we understand how to recognize it.

“The Fog,” as delirium is sometimes called, is an acute state of confusion. Other terms used to describe delirium include: ICU psychosis, sun-downing, encephalopathy and acute brain failure. It occurs in 25-60% of older hospitalized patients with associated mortality rates of 25-33%. In addition, 80% of older adults in the ICU will have delirium.

What Can We do about delirium?

There are two types of delirium. In the hyperactive delirium state, patients are restless, combative, irritable, easily distracted, impatient, and labile in their emotions. In the hypoactive delirium state, patients are the opposite – they are unaware of their surroundings, lethargic, not alert, have sparse or slow speech, and display decreased motor activity. Patients may easily misinterpret their environment and have illusions and possibly hallucinations. The most common type of delirium is a mixed state between hyperactive and hypoactive delirium. With an acute change in mental status, nurses can play a vital role to screen for delirium and promptly request a medical evaluation.

How do We assess for delirium?

To screen for delirium, we use the Confusion Assessment Method (CAM) or the CAM-ICU, which has improved the identification of delirium in the clinical and research settings. Early detection is the key to managing delirium and nurses are in a powerful position to recognize and manage delirium. A patient is CAM positive if they have an acute onset of mental status changes or a fluctuating course with a prominent feature of inattention. Also, they must have disorganized thinking or an altered level of consciousness. Remember this is a screening tool not a diagnostic tool, so report your findings to the physician team. It can be very helpful to the patient if the nurse considers recommending a Psychiatry Consult or a Geriatric Services Consult.

How Can We Prevent Delirium?

We can prevent cognitive impairments by avoiding sleep deprivation, visual impairments, hearing impairments and dehydration. We can also promote mobility and review the patient’s medications. It’s important for patients at risk for delirium to get enough sleep and drink plenty of fluids. Keep the noise level down and talk to the patients about their families and their interests. It is also important to assist the patient with regular ambulation and range of motion exercises to help prevent the onset of delirium. Carefully observe the patients vital signs, mental status, lab work and oxygenation levels. Pain management is essential for these patients since untreated pain or over medication can contribute to delirium.

The most important things we can do to help prevent delirium include early screening, detection, and intervention. Early intervention should be initiated as soon as possible to prevent delirium. Those patients who are most at risk for delirium include patients with advanced age, sensory deficits, medical history of delirium, baseline dementia, drug and alcohol withdrawal, immobility, dehydration, and/or sleep deprivation.

Efforts at Stanford Hospital and Clinics

In October 2008 a multidisciplinary team was assembled to improve the care of all patients with delirium. The goal was to create tools to help with the early identification of patients with delirium and those patients who were at risk for developing delirium. In addition, the team helped to implement evidence-based practices to avoid delirium-related morbidity.

A Geriatric Nurse Practitioner is available for RN referral to assist nursing in the management of delirium for patients who are older than 65. Dr. Yusra Hussain, Medical Director, Aging Adult Services, will conduct rounds with the Geriatric Nurse Practitioner on complex referrals, and educates nursing staff, physicians, and families on delirium.
A Balance of Work and Play

PAGGY WANG, RN, MBA,
Lung, Heart-Lung Transplant
Nurse Coordinator, says, "Mixed
Martial Art (MMA) is here to stay!
My husband trains me because he
wants to make sure I can protect
myself. However, it becomes
addicting when you know that
you can take someone who is
twice your size down because
you know the techniques such as
rear naked choke or armbar. It is
extremely fun when I make my
husband tap out when I pull a
‘Kimura’ on him. MMA is also a
great way to release stress, not to
mention excellent cardio!"

DENISE PAULO-COLACI, RN, and other nurses from E2 ICU are
involved in the organization Habitat for Humanity. Denise is demonstrat-
ing her shoveling skills at one of several Bay Area building sites. Units
interested in organizing a group of volunteers can contact Habitat for
Humanity.

ROWENA CHENG, RN, Nurse Coordinator, Interventional
Cardiology, is teaching a group of teenagers from Irvington High School
in Fremont how to make and sell special order prom boutonnieres and
corsages. The money raised is donated to the “We the People Program.”
In Recognition of...

**CERTIFICATIONS/RECERTIFICATIONS**

CEN – Certified Emergency Nurse
Michelle Woodfall – November 2008

CMSRN – Certified Medical-Surgical Nurse
M. Cristina Woytowitz – October 2008

ONC – Orthopedic Nurse Certified
Barbara Mattson – November 2008

OCN – Oncology Certified Nurse
Stephanie Stern – November 2008

**CONFERENCE PRESENTATIONS**

Sandra Burgess: “CLL, New Prognostic Indicators; Treatment Strategies and Nursing Implications”, Fall Institute ONS Dinner, Seattle WA, November 2008.


**ARTICLES AND PUBLICATIONS**


**AWARDS**

Dawn Runkle, RN, Sigma Theta Tau Honor Society, November 2008

Barbara Lee, RN, Congressional Award, October 2008

Barbara Lee, RN, Chicana/Latina Foundation Scholar, October 2008

Leticia Mendoza, RN, Certificate of Honor from San Francisco Mayor, October 2008

Marika O’Baire-Kark, licensed Avatar Master 4981 renew, October 2008

Maureen O’Hara, RN, Appointed USF Dean’s Advisory Council, September 2008

**DEGREES**

Carol Bell, BSN, MSN, FNP: Master of Science Degree in Nursing, San Francisco State University, December, 2008

Christine Schurman, NP, OCN, MSN: Masters of Science Degree in Nursing, San Francisco State University, January 2009