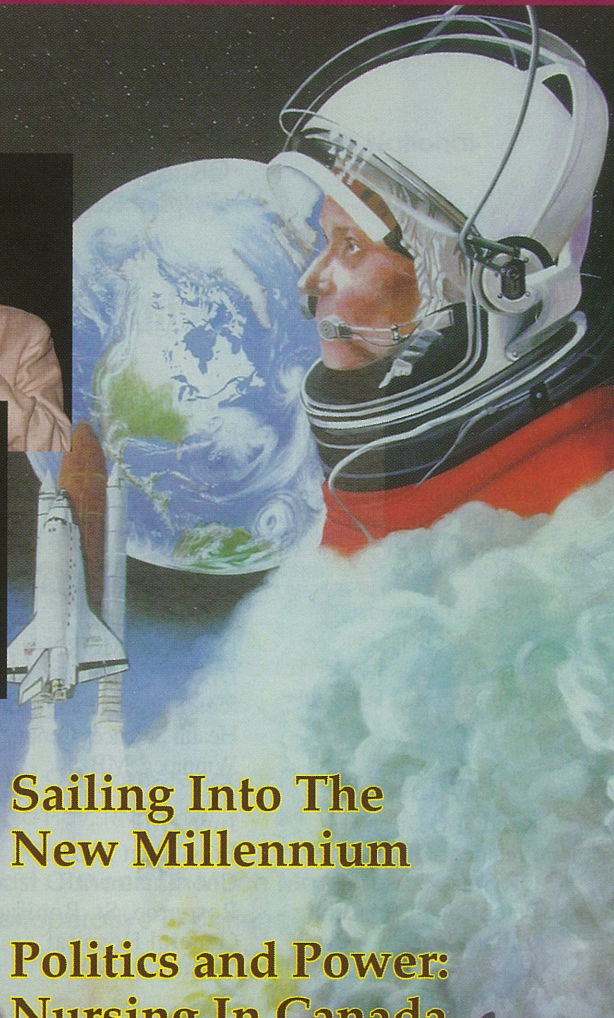


Canadian
Operating Room Nursing Journal

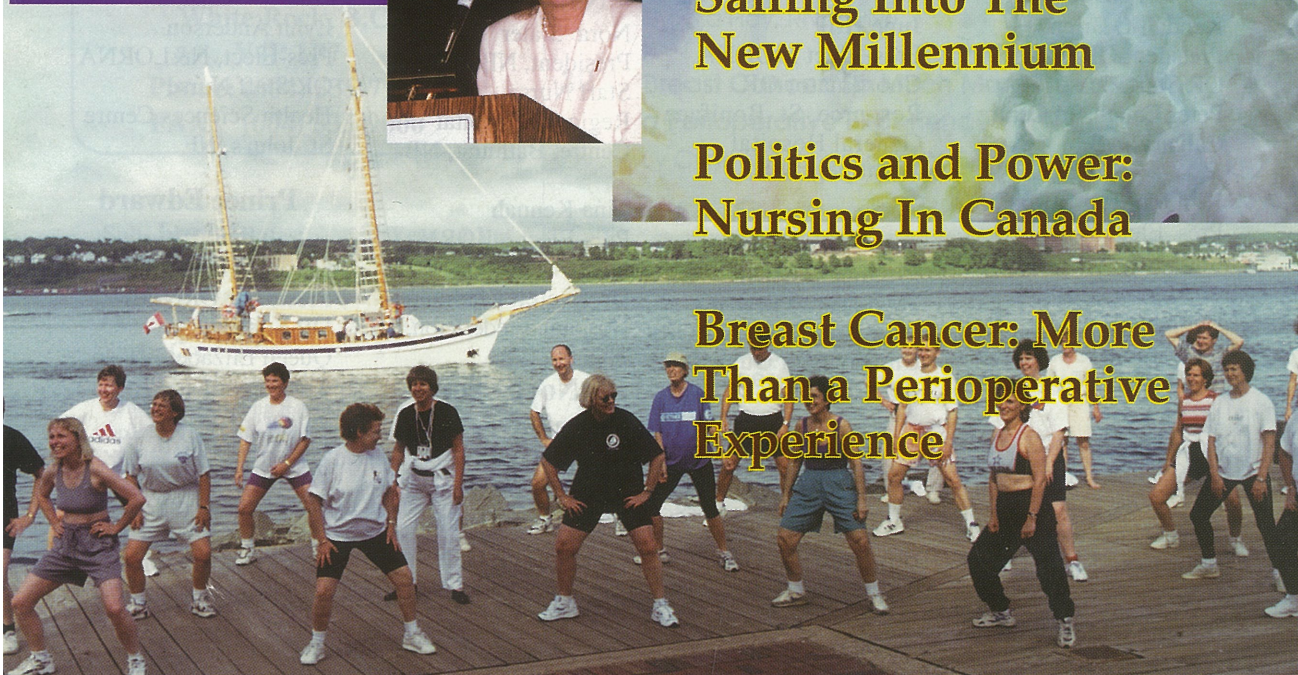
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**Sailing Into The
New Millennium**

**Politics and Power:
Nursing In Canada**

**Breast Cancer: More
Than a Perioperative
Experience**





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Cover Photos: Astronaut Dr. Roberta Bondar was the elevating closing speaker at ORNAC's 16th National Conference in Halifax June, 1999. Dr. Tim Porter-O'Grady and Senator Lucie Pépin were uplifting and Judi Tyndall was honored with the Isabelle Adams Award.



ORNAC Board. Seated: (LtoR) Kathy Bruce, Jean-Yves Latreille, Corina Balcom, Vija Hay, Donna Farid, Marlene Hill, Shelley Zareski, Mary Knight, Rob Richardson, Lynn Anderson. **Back Row:** (LtoR) June Hill, Kendall O'Brien, Carolyn Hughes, Nora Slater, Sandra Grimwood, Kim MacLennan-Robbins, Sheila Billiard, Lyn Thom, Rosemary Atwill, Monique Perazzelli, Tina Kennah, Janice Shephard, Marg Farley, Sharon Greene, Marla Ewen.



Peter Steinmann, President of Johnson and Johnson Medical Products presents the \$3000 Drake-Thompson Editorial Award to **Antoniette Labricciosa** for her article "Transient Osteoporosis During Pregnancy: The Perioperative Role" published in the October, 1998 issue of CORNJ. Nora Slater, ORNAC Awards Chairperson to Antoniette's right with Donna Farid.

Hilda Power, Clinical Coordinator, QE II Health Sciences Centre, Halifax, receives ORNAC's Research Grant of \$5000. Donna Farid (left) and Mary Knight, Research Committee, (right).



Isabelle Adams Award to Judi Tyndall

ORNAC's prestigious "Isabelle Adams Award for Perioperative Excellence" was presented to Judi Tyndall, RN, BScN, MN, at the Conference opening. Judi is OR Clinical Educator, Hamilton Health Sciences Corp., where she is employed at multiple hospital sites (26 Operating Rooms).

Judi has over 30 years OR experience in numerous services including vascular, open heart, nuro, oncology, urology, ophthalmology and ENT. She is Founder of the Post RN OR course at Mohawk College; developed the first nursing diagnosis perioperative record in Ontario; was instrumental in developing the first latex protocol in her region and publishing the information internationally in the OR Journal; she helped

Halifax '99

ORNAC's 16th National Conference was: A Great Party ! A Great Musical Event ! A New Age Educational Experience!

It was a great week-long event - 712 OR Nurses rocked, sang, laughed, cried, sailed the high seas, did a pub crawl to seven bars in old Halifax and were educated and inspired by the presentors. Conference Delegates and Exhibitors were delighted at all the music and entertainment, starting with Dennis Ryan's acappella rendition of *Cape Saint Mary* - a hauntingly beautiful chantey to open the conference. The Barra MacNeils, Blou (an Acadian Zydeco Band), and the fabulous Maxxim Band, led by himself - the rockin' CEO Ken Davidson. Congratulations to Donna Farid and her planning committee. It was a grand party. Three of the 30 superior speakers are featured in this issue, and more will be published in future editions.

The 23 poster presentation were a goldmine of information. If 50% of the presentors submit articles to the journal elaborating on their projects (Actually, the Ottawa Group did just that last issue), we'll need a bigger journal.

Judi Tyndall develop the first Canadian Nurses Association Perioperative Certification Exam, and served as member and President of ORNAO and as an ORNAC Board Member.

Judi Tyndall was nominated for the award by her peers, her staff and students who describe her as one who consistently demonstrates competency in perioperative nursing practice at the expert level. She excels in leadership and always advances the image of the OR Registered Nurse with competent and progressive clinical, educational, research and administrative skills.

Judi Tyndall is a role model, whose caring, compassion and respectful approach benefit both client and family, as well as her nursing colleagues.

(Photo Credit: Page 5 - Agnes Forster)



Speakers from the Heart Club, Winnipeg: (LtoR) Joan Borton, RN, Carol Youngson, RN, Irene Hinman, RN, and their counsel Coleen Suche, QC. They reduced us to tears with the retelling of the events leading up to the Inquest into the tragic deaths of 14 infants .



The Editorial Board: (LtoR) Sharon Ball and Kim Robbins. Sharon presented on *Computerizing Scheduling and Documentation*. (Seated LtoR) Rosemarie Atwill and Jean-Yves Latreille. ▲

Allegiance Healthcare Musical Breakfast (LtoR) Willow Underwood, (SORNG Board member) Ardelle Bendig and Sheila Koch, (SIAST) and SORNG Board Member. All from Regina.





Getinge Castle Aerobics. Lynn Walters, Vancouver General and Shannon Murphy led the class twice daily. That's where OR Nurses get their remarkable energy. (Photo Credit: Jean Chambers)



▲ **Senator Lucie Pépin** challenged nurses to use their political power, (see page 10). **Cindy McLellan** (right) provided an overview of breast cancer treatment modalities and suggests a role tailor-made for Tim Porter O'Grady's New Age - Nurse Navigator, (Page 30). Dr. Porter O'Grady's uplifting, futuristic 3-hour presentation is abridged for readers on p14.



Astronaut Roberta Bondar - an uplifting closing speaker

Simply being under the same roof as space pioneer Roberta Bondar is an inspiration. Her achievements are awesome.

Dr. Bondar was the closing speaker who knitted together the many challenges directed at the conference by talking about:

Team Building: (her space team and the many years of training required to achieve their goals, (81/2 years of training for an 81/2 minute flight). "There is a 4% risk of death in each shuttle launch. We had to learn a whole new set of skills to cope with the fear of not having control over things", she said.

Goal Setting: The first Canadian women in space who undertook 55 research experiments - admitted it was a struggle to find the time to enjoy the ride.

"Many people set goals and don't know when they've achieved them... Enjoy the moment", she said, and challenged delegates to "hang on to the excitement", make yourself strong, and get passionate about your life's work.

ORNAC's Executive. Seated (LtoR) President Marlene Hill, Past President & Halifax Conference Chairperson Donna Farid, Standing: Shelly Zareski, Treasurer, Mary Knight, President -Elect, and Marg Farley, Secretary;



(Photo Credit: Margery Ensminger)

ORNAC/Johnson & Johnson Bursary
Wendy Walsh of St. John's Newfoundland was the winner of the 1999 ORNAC/J&J Bursary.

In describing the unbelievable beauty of Canada's mountains, greenspaces and water from space she said: "We are alien's on earth, we need to evolve into responsible earthlings". Wars and the need for gun control are not responsible. We don't have enough research going into removing and recycling our technology. We need to preserve the magnificent beauty of Canada. "Never underestimate your power to change things", she said.

Dr. Bondar is currently photographing as many of the national and provincial parks she can as a Y2K project. Most Canadians have visited only two of Canada's 52 parks and can only name five. Point Peeley National Park has not been photographed since 1972.

Is she aligned with other environmentalists, like the government or David Suzuki's Foundation, someone asked? "

"No, none. I don't want to get involved in other's agendas. I have my own and I'm persuing it", she said. ■ (A4)

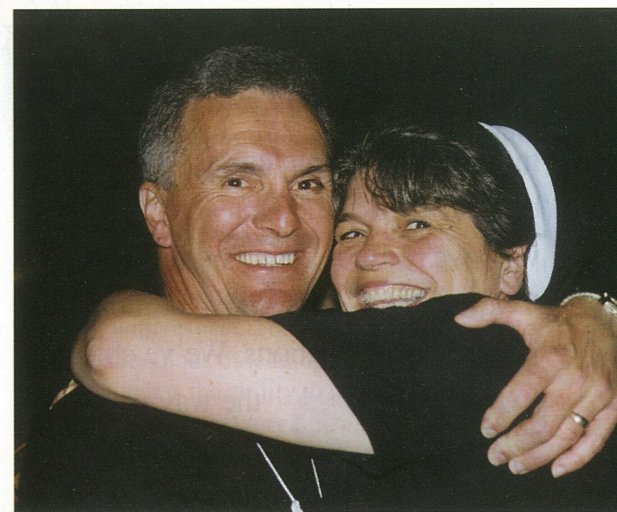
Quilt Raffle Winner: Charlene Shneiderman, Cape Regional Hospital, Sydney, NS. ▶
Trips to AORN 2000 in New Orleans.
Steris Corp. Winner: Christina Hunter of Prince George, BC. ConMed Corp/Minogue Medical Winner: Kim Young.

Gloria Nemecek, Chairperson for ORNAC's 17th National in Banff 2001..... invites all to come!



The 1999 Halifax Conference Planning Committee: Seated : (LtoR) Hilda Power, Sunny Russell, Shelley Zareski, (Chairperson-Donna Farid), Sharon Greene, Dee Ross. Back Row : (LtoR) Cindy Ehler, Mary MacAdam, Tanya Burnett, Joanne Baldwin, Pauline Fowlie, Lyn Thorn, Bev Wood, Barb Crawford. (Photo Credit: Margery Ensminger)

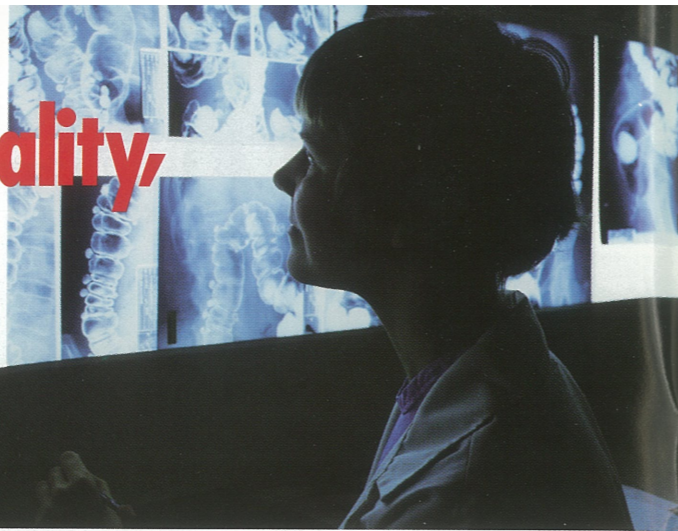
Sister Carol Taylor dances with BCORNG president **Rob Richardson**, at the Ceildih Night. Next morning, fresh as a daisy, she touched our funnybone, our heart and our deepest moral reasoning powers. Her charismatic presence and knowledge was evident in her exploration of the ethical challenges facing OR nurses today. (Photo Credit: Jean Chambers)



Lobster Dinner & Music (Ceildih Night) 700 delegates under a great tent. Standing: (LtoR) Margery Ensminger, J&J President Peter Steinmann & Muriel Shewchuk (she arrived with over 30 nurses from her Calgary Region). Seated: (LtoR) Kendall O'Brien, ORNAA President; Pat Petersen, publicity for the ORNAC National in Banff, Alberta in 2001; Dorothy Orr and Gloria Nemecek. (Photo Credit: Agnes Forster)



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From Grassroots to President

By Marlene Hill, RN, CPN(C)

For my first "President's Message" I would like to introduce myself on a personal and professional level and thereby establish a rapport with you, and perhaps provide motivation to other perioperative Registered Nurses to become involved in their professional associations.

I am married and have two daughters of whom I am very proud. One of my greater accomplishments was in raising these girls and seeing them venture out into the world with their own set of values, beliefs, and desires. Now that the girls are on their own, Marvin and I remain in our home with a wonderful view of the Northumberland Strait and Victoria-By-The-Sea. It is a rural area with a 30 minute commute to work. My mother, sisters and brother live around us in their own homes on our family farmland. It is wonderful to have the security of family close by, and we respect each other's privacy. Both vegetable and flower gardening are enjoyable hobbies and provide me with a measure of peace and well-being. For me, this is paradise.

I graduated from the diploma nursing program at the Moncton Hospital School of Nursing in 1972 ready to conquer the world and be the best nurse I could be. I was determined not to get in a "rut" like some of the "old nurses" I'd encountered. Well guess what? I've become one of those "old nurses" but I can assure you I have never been bored in my life, and the love of nursing and the desire to "conquer the world" remains strong. Nursing has always been good to me and for me.

My employer is the Queen Elizabeth Hospital in Charlottetown, Prince Edward Island. I work part-time as a perioperative registered staff nurse and am proud of that fact. I feel strongly that the combination of commitment, competency, knowledge and ability to interact well with others are the qualifications which gave me the confidence to run for President-Elect of ORNAC two years ago.

My active involvement with ORNAC began in 1989, and since then have met wonderful people provincially, nationally and internationally. I have

had opportunities for travel and have the satisfaction of knowing that I have contributed positively to OR and general nursing practice decisions. From these accomplishments I have developed greater self-esteem.

I have served on the Executive of ORNAC in the position of President-Elect for two years, Treasurer for four years, and as member and/or chairperson for several ORNAC committees. My proudest accomplishment was to have been Chair of the Standards/Education Committee and was responsible for overseeing the publication of the 1998 *Recommended Standards For Perioperative Nursing Practice*. I am currently gathering data for the publication of the 2003 *Communiqué*, an historical document covering ORNAC's accomplishments over the next five years.

Throughout the years, deriving enjoyment in carrying out responsibilities has been a high priority for me. It's revealing to discover that when the fun disappeared, the responsibilities became tedious chores. We must all strive to enjoy ourselves, our families, community and our co-workers, taking time to "smell the roses". We should endeavour to bring to work a positive attitude, maintain a physical, psychological and spiritual balance and treat others with respect. I believe these are secrets of success and methods of leading very fulfilling lives.

Each of you has the ability to make a difference in your environment/work/organization. The first step is always the most difficult. During my term of office, I challenge you to become more positively involved in nursing decisions and collaborate with ORNAC and myself to provide an organization which will best serve the membership most effectively. ■



Marlene Hill, RN, CPN(C), is President of the Operating Room Nurses Association of Canada. She is Staff Nurse, Operating Room, Queen Elizabeth Hospital, Charlottetown, Prince Edward Island.

Politics and Power: Nursing in Canada

By Senator Lucie Pépin

Speaking about issues that are of great concern to us all, brings me back to my roots. It brings me back to the people and the profession which first sparked my passion for service, for change and for public action.

I began my career as a nurse in the 1960s. And it led me directly to a life of public service. The spark for me was the recognition that the rights of women in the health care system were not being adequately addressed - I was incensed at the lack of control women were allowed over their bodies. This spark led me to fight for the establishment of birth planning services across Quebec; to fight for women's rights to choose; and for women's right to sign medical authorizations, for themselves and their children. The rest is history.

When synthesized [my career] into a couple of sentences, the process seems so easy. Get mad, get passionate and get out there!

I am the first to admit that social change is not easy. It is possible though, and if I bring you any message, I bring the message that you are powerful and that I feel very hopeful about the current position of the nursing profession and its power to effect positive change in Canada's health care system.

But first let's look at what we need to effect change: anger, passion, confidence and action. Let's start with anger. Well, the nursing profession certainly has a lot of material to draw on there.

Nurses are a lot like mothers in our society - undervalued and underpaid. And the relationship between nurses and decision-makers in Canada reminds me a lot of the mother-child relationship - nurses are taken for granted until there's an emergency, and then suddenly our worth is recognized and our presence essential. But this recognition is usually fleeting and often comes too late.

In case you aren't angry already, let me provide a little status report on the nursing profession as we head into the next millennium. In the words of our federal Minister of Health, "*No professional group has borne the brunt of health care restructuring more than Canada's nurses...*". In the last few years, it is mainly, if not only, the nurses who have lost full-time employment and income as well as witnessed the de-professionalization of their profession.

Since 1992, more than 20,000 full-time nursing positions have been converted to part-time or casual. This is in addition to the thousands of nursing positions that have been abolished. With only 51% of Canadian nurses working full-time, the rest are obliged to sew together careers in a variety of work settings, with a variety of employers. This makes it very difficult to provide the continuity and quality of care that is the cornerstone of the nursing profession.

As cutbacks come down, the corresponding workload goes up. A 1998 study out of Laval University's Faculty of Nursing found that three out of four nurses felt they no longer had time to do

Author

The Honorable Lucie Pépin was Opening Keynote Speaker at the ORNAC's 16th National Conference - *The Valerie Shirreff Memorial Lecture*, sponsored by the National Exhibitors Advisory Committee.

Lucie Pépin was appointed to the Senate in 1997. She has an Honorary Doctorate from McMaster University and is an RN with post graduate studies in Obstetrics and Gynecology. She was a pioneer in Birth Planning in Canada, and was Vice President and President of the Canadian Advisory Counsel on the Status of Women, while a Liberal MP. She is very involved in issues dealing with women and children.

their jobs properly. With little job security, coupled with the stress of balancing more than one employer and an increased workload, is it any wonder nurses complain of burn-out?

To add insult to injury, nurses are being replaced by less-skilled health care providers. The logic of the decision-makers is simple - less-skilled means less costly. Forget assessing the effects of this switch on effectiveness, productivity or quality of care. Results are measured in terms of the bottom line.

What is a nurse's reward? Not much! Over their entire career, the average nurse will see his or her income grow by 36%. Compare this to an accountant, whose income will grow by 193%, or a secretary, whose income will grow by 72%. Are you angry yet?

These insults comes at a time when we are talking of shifting from institutional to community-based health care; from treating illness towards health promotion; from research on biomedical mechanisms to social determinants of health. Nurses are essential to each of these areas of reform.

Nurses make up the largest body of health care providers in the system. Nurses are the front-line providers, and those closest to client needs. The nursing profession is the profession eliciting the most trust from the Canadian population.

You are all essential to the success of the reform measures we are trying to undertake in our health system. And yet you are treated by our decision-makers as if we could live without you.

You are not systematically included, by governments or health administrators, in decision-making around health care reform, even though you know the clients best. While governments give out bonuses and revenue increases to doctors and health administrators, nurses must wage prolonged battles for even a minimal recognition of their due. I cannot help but believe that if the nursing profession were dominated by men, the situation would be very different indeed. The value of the profession would not be systematically undermined and demeaned.

But wait, worse is yet to come if we do not act fast. Studies show that we will shortly be facing a severe shortage of nurses. The nursing profession is aging, many nurses are leaving the profession and the recruitment of new nurses is dropping steadily.

Why is their declining retention and recruitment of nurses? No surprises here. When surveyed, former nurses and would-be nurses claim the following factors influenced their decisions to leave or never enter the profession: lack of status, little decision-making power, few opportunities for promotion, excessive

non-nursing duties, terrible working hours, and inadequate income.

There is nothing very new in these facts and statistics that I have just run through. But I hope that hearing them again has made you angry. . . angry and passionate enough to mobilize for change. Have I hit the spark yet that will lead you to action?

Anger and passion are sometimes difficult for women. Especially coming from a profession grounded in empathy and compassion. We sometimes feel guilty for our anger, we feel shrill and powerless when we speak out forcefully about our passions. We may suddenly doubt what we have to say or feel that we are asking for too much.

"Get mad, get passionate and get out there"!

In a recent issue of the *Canadian Operating Room Nursing Journal*, Dr. Kathryn May, Director of the School of Nursing at UBC, described nurses in this way:

"Canadian nurses have an affinity for the brakes. They have to look everything over and over, from every angle. Is there a possibility that we can be making a mistake? Has anyone else done it? What will the physicians think? What will the administrators think? What will my mother think?"

Welcome to nursing - but also, welcome to being a woman in Canada! So what to do? How to move from anger to action? For action you need confidence - confidence in your abilities as an individual. Confidence in the abilities of nursing as a profession. Confidence in the process of change.

In order to build that confidence, let us start by getting a sense of the power, and the amazing contributions of the nursing profession. Nurses have been on the front-lines of all major innovations in Canadian health care. Nurses have been on the forefront of introducing a holistic approach to medical care in hospitals. You have been instrumental in the ongoing shift from institutional to community-based care. And you have softened the transition and filled the gaps in multidisciplinary health care provision. You have also encouraged the integration between medicine and other fields such as social work, midwifery and ergonomics, to name a few.

Let me take a minute to site a few examples of

how the nursing profession is changing the face of medicine in Canada while saving costs and ensuring quality care, all at the same time.

In Ontario, a pilot project has been tested for clients being admitted to hospital for total hip replacement surgery. In order to reduce patient anxiety and the length of postoperative hospital stays, a pre-admission education program is offered. It is offered by a multidisciplinary team, two members of which are nurses. It has been evaluated as a success. Clients participating in the program were less anxious than those receiving no pre-admission education and hospital stays were reduced leading to an estimated savings of over \$50,000 for an 18-month period.

In another success story, hospital nurses in Alberta have been instrumental in shortening the hospital stays of patients recovering from open-heart surgery by two days. Nurses identify heart surgery clients capable of being discharged early. Nurses then coordinate and manage the transition from hospital to home and the follow-up home care necessary for full recovery and improved health. It is estimated that, in one year, this program was able to reduce the average waiting time for open-heart surgery from 157 to 87 days. These are two good examples of the value the nursing profession brings, in terms of its holistic perspective and the essential link it provides in the delivery of integrated health services. Not to mention cost-savings and efficiency.

Nursing has never been more powerful !

While professionally, the nursing profession is soaring, politically it has never been more powerful. The Canadian Nurses' Association has been key in pressing the federal government to reinvest in the health care sector in general, and in the nursing profession in particular. Its *Quiet Crisis* lobby and the leadership it demonstrated through its co-chairing of HEAL has made it a force to be reckoned with. Thanks to these efforts, Health Minister Allan Rock has publicly recognized the essential role of Canada's nurses and has created a \$25 million dollar Nursing Research Fund, to support their retention and recruitment as well as the evidence-based practice of the profession.

The nursing profession is fighting for a health care system that most Canadians want publicly funded and centred on the patient. The five principles of the Canadian Health Care Act represent what the nursing profession is continually striving for - this gives you indisputable leverage.

Negotiations from Alberta to Newfoundland have

put the nursing profession in the news on a daily basis. While some may say that these stories paint a negative picture of the profession, I find the new images inspiring - thousands of women fighting for the health and well-being of millions of Canadians. Risking their jobs to ensure that the patient is at the centre of our health care system. Women fighting for a fair wage and collegial respect. While I do not mean to minimize the essential contribution of male nurses who are out on the picket lines fighting for these same causes, pardon my bias when I point to your female colleagues. It is so rare and so wonderful to see women in such a position of public strength and cohesiveness, emblazoned across our newspapers and television screens every day.

Given the incredible public trust nurses enjoy, I believe that most Canadians view the images of angry or striking nurses in the same light as me. Nurses are a very patient and responsible lot. It comes with the profession. If they are threatening strike action, it is because they have been pushed against the wall with short-sighted measures and unfair treatment. In their strike action, they are fighting, not only for their professional interests, but also for the future of our health care system.

That is what you are fighting for, is it not? The ability to care for others in a professional and empathetic way? We are surely a society on the precipice of trouble if we cannot put value in that. So go from anger to action with confidence. You are fighting for noble causes. You are well-placed to give your say on health reform. You have numerous and wonderful examples of the positive changes your profession is making and can continue to make in the health system. You have strong support from the Canadian public.

From anger to action

Go from anger to action - but what does action mean? First and foremost, action starts at the individual level. By gaining confidence in your capacities and the scope of what you can bring to your work. By interacting with other health professionals as an equal. By referring to other health professionals as colleagues and expecting them to do the same for you. By voicing your views and ideas openly and with conviction, regardless of who stands before you. By committing yourself to lifelong learning, so that your views and opinions are of value and are respected. By taking risks while playing on the team. By mentoring others that come after you.

It is a tall order, I know. And it is particularly hard

to keep your head up when you feel unfairly treated. But it is important to keep a few things in mind: Change takes time but it always comes about. You have power, much more than you know. And finally, taking and keeping the high road, invariably gets you where you want to be with honour and self-respect.

While striving for change, you must draw on the positive experiences in nursing. In the United States, there are exciting examples of nurses expanding the scope of their profession and increasing their job satisfaction. Sixteen hospitals in the United States, described as magnet hospitals, are seeking to improve the quality of services provided by nurses. They are doing so by promoting lifelong learning for nurses. The push for education is related to a drive for quality health services. With increased education, nurses are granted greater responsibility and their job satisfaction increases, simultaneously increasing recruitment and retention rates.

Modelled on the magnet hospitals

Similarly, in a recent article I was reading on the Mayo Clinic in Minnesota, staff attribute its world renown reputation and success to its organizational culture. Collegial respect and team-work are the order of the day. With a singular focus on the best interests of the patient, the roles and responsibilities of all health care professionals are clearly defined and highly complementary. There is little hierarchy as everyone's contribution is known, valued and respected. Job satisfaction is high, turnover is minimal.

I raise these examples very briefly to demonstrate that other models do exist and that change is possible. And we have our success stories in Canada too.

Modelled on the magnet hospitals of the US, Mount Sinai Hospital in Toronto has been very effective in improving RN employee satisfaction. The hospital is implementing the Primary Nursing Care model in which one RN takes primary responsibility for the planning, implementation and evaluation of a particular client's nursing care, from admission through discharge. This model is enhancing the continuity and quality of care while increasing job satisfaction. Nurses are encouraged to participate in constant professional development, both as learners and deliverers, while their time for this activity is compensated. At Mount Sinai, it has been documented that a reliance on RNs over less skilled health care workers has resulted in both productivity gains and cost savings.

If there is a message to be gleaned from these examples, it is this: Valuing the nursing profession, increasing the quality of health care and increasing

efficiency can and do go hand in hand.

As individuals and as a collective, nurses must promote this message and evidence from your success stories must go out. It must be brought to the attention of health care colleagues, administrators, policy makers, the media and the public. I must say that your provincial and national associations are doing a great job of disseminating this information and working in partnership with other health care associations to lobby for change. These associations have developed very clear positions on health care reform in Canada. And their efforts are bearing fruit on the national scene. But they need each of you to become involved, to become committed and confident in speaking and acting out. It is only when the nursing profession, as a group of individuals, takes its position seriously, fights for what it believes in and voices its views loudly and continuously, will the changes you want come about.

I know this is a difficult thing to ask of you. You are working so hard. The rewards are so few. You have important family demands on top of all this. Where can you possibly find the time to do more? I cannot answer this for you. All I know is that, in recognizing the power you have, in becoming part of a movement for change, you will find extra energy, extra creativity and drive that you never thought possible.

“Take a politician with you into the OR - fully masked and dressed and let them see what you do from start to finish. Then you'll get results.”

(Senator Lucie Pépin - Question Period, 1999 ORNAC National Conference Halifax)

Become engaged to improve your working conditions because it is your due. But ultimately, become engaged to help our health system survive and flourish. This is not about self-aggrandisement or aggressive marketing. This is about getting your message out to ensure that nurses continue making wonderful contributions in health care. You are best placed to act as the intermediaries between physicians, administrators, clients and other health care professionals. You have lots of leverage in our health system. Canadians appreciate and respect you. You must be convinced of what nursing has achieved for Canadians, so go out and find fodder for your fight. And then, to quote a great Canadian feminist and activist named Nellie McClung:

“Never retreat, get the thing done and let them howl.” ■

Sailing into the Millennium: New Waters, New Realities

Dr. Tim Porter-O'Grady, EdD, PhD

What I want to do is challenge your frame of reference, challenge your mental models, challenge not what you know, but how you know it. I want to challenge the way in which you see your relationship to your practice, to healthcare and to the world, and within that challenge begin to create a new context, a new frame of reference for thinking about who we are, where we're going and what it means.

We are all aware of the fact that we are in the midst of major social change. The issue now is to recognize that we are in an age of global change. You need to really understand the significance of that so we can begin to pinpoint what it means for us individually, and as professionals, as those who will be writing the script for the age into which we are moving.

What will be the work required of you at the personal level, professional level and of course the collective level. What will be your individual obligation so that you can begin to discern from your own work, from your own thinking, and your own relationships, what part you will play in creating the future.

As a gerontologist I was reading in the Journal of Gerontology that we now know that the unstressed normative lifespan for the human species is 135 years. Are you ready?

Nobody is confident, nor competent

During this journey into the new age, if you don't have a sense of humour you need to die now. There's going to be a lot of things unfolding in healthcare that are going to require a deeply embedded sense of humour. The wonderful thing about moving into a new age is we don't know what we're doing. Nobody knows what they're doing. When your leaders appear as though they are confident, know they are not. The

more somebody appears competent, the more suspicious you have to be of them. That's traumatic. Think about how traumatic that is for us. Nobody is confident nor competent any longer.

The Industrial Age has ended

What are the competencies that are going to be demanded of the world we haven't yet formed but we're moving into without our consent? What are we taking with us and what are we leaving behind?

As we move into a new age we have level playing fields. We're all operating at the same level of ignorance. We're all at the beginning of a new template.

We are at the end of the Industrial Age, the end of a reality that you know. If you are over the age of 18, you were born in the Industrial Age. Now it's ended. Think about what that implies. In what age did you get your values, your knowledge, your experience? The Industrial age. We're at the end of that age, the

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end of healthcare as we know it, the end of nursing practice as we know it.

Today we are at exactly the same place in the transition to a new age as Florence Nightingale was 100 years ago. She was essentially doing what she was doing at the beginning of the Industrial Age. She was codifying, creating a science component to the art of nursing and formalizing the basic foundations of nursing. She had a tremendous influence on the whole process of organizing, managing and delivering healthcare services. She wrote the first manual of hospital organization for the military. She was a very gifted woman at a very critical time in the transition to a new age. We're at the same time, 100 years hence that Florence was when she was adjusting and adapting to the realities of an Industrial Age.

What part of Florence do we now need to create a new framework for practice. Where we're going is fundamentally different from where we've been. A part of the discernment that needs to occur as we move over the paradynamic boundaries into a new age, is what goes with us from our history. What do we take with us and what do we leave behind?

Nurses are tremendously attached to their rituals and routines. There's rumour that OR nurses are especially attached to rituals and routines. Dispel the rumour by your behaviour. Just think of all of the drama of change that you've gone through as perioperative nurses. Think about the history of perioperative services. Remember 25 years ago today, 83% of the people who came to surgical services were inpatients. Today, 86% of those who come for perioperative services in North America are out-patients. Why? Because it's possible! That's a sign post. It's trying to tell you something. It's trying to make something clear. Think about the activity and the percentage of activity spent on specific kinds of surgical procedures that is not spent anymore because technology has made it possible. Know that 75% of the surgical procedures you are doing in your ORs today will not be present. You've heard that before, but think about what it means for you, your work, your role, your position, your skill set, and think about what it means in terms of the drama that is now playing out and how those rituals and routines will have to be clearly assessed.

When nurses see a new change coming, we design a new form for it. We want to be able to control that change. Many of us are in the OR because we're escapees. There's a sense of order in the OR. When you open the doors you see the impact of technology - a part of the purpose of technology is to create the disorder necessary for you not to hang on to the order.

Order is an impediment to change. Part of what we have to do in our journey is to unbundle our attachment to where we were, then engage and embrace the drama of the change. Recognize that at the cusp of a new age the script is unwritten, and we get to write it. That is both a blessing and a curse.

Chaos Serves a Purpose in the Process of Change

I've worked in every province in Canada; with the exception of PEI, and found that every province is in the chaos of transformation. Different chaos, same transformation. People who don't live in Canada think that Canada has one health system. We all know that is not true. Every province is committed to doing it differently.

Clearly it's the drama of the chaos of change. Chaos is an essential constituent of the change itself. It's a requisite. We're moving out of a framework that we know a great deal about and moving into a framework we know very little about and one we must construct as we go. Fortunately the universe and an age change provides us a transitional process. It provides the noise, the cultural framework.

Chaos serves a purpose. The purpose of chaos is to unbundle your attachment to the age you're leaving. The chaos makes so much noise that you can no longer cope with where you are. If you cope, you accommodate. If you accommodate, you slow the process of change. The purpose of chaos is to make nonsense of what once made sense. The purpose of chaos is to make your work increasingly impossible to do. Is it working? The purpose of chaos is to make the work you have to do greater than the work you've already done. The purpose of chaos is to confuse your understanding about change. It's to make you uncertain as to where you are with regard to the change.

Years ago you could see a change coming. Now you don't know when one change begins and another ends. Five changes are going on at any given time and you don't know when anyone of them started, or if anyone of them will end. You don't know for sure if there is an end to any of it.

An age change occurs at the convergence of three forces: sociopolitical forces, economic forces and technological forces. Those three forces are always changing.

Stephen Hawking says that change is not something you grab, see or hold. Change is a dynamic. It is the only constant in the universe. Somebody said to him... "When the universe was created ...?" He said "Stop for a minute, you need to know something.

It's not finished. It's still in creation. It's still unfolding. It's not over yet". He says change is a continuous, cyclical and endless dynamic that has direction and motion. It is not a straight line and it is not a thing. It is embedded in the experience of the universe. It is a part of our experience. Change is the only constant. [Editor's note: Stephen Hawking, is the brilliant theoretical physicist of big bang and black hole fame. His book "A Brief History of Time" spent over four years on the London Sunday Times Bestseller list - the longest run for any book in history. Hawking is confined to a wheelchair because he has Lou Gehrig's Disease].

Change Is Not Optional

There are only two questions you can ask about change: (i) what does it mean to me; and, (ii) what am I going to do about it?

There are people in your organizations that still believe that change is optional. We have to tell them it is not optional. When somebody says "I'm not going to change". You have to say "thank you for letting me know. I'll keep an eye on you. Your suffering will be an inspiration to us all".

The issue is not whether you will change. Nobody is the same as they were a year ago, or 20 years ago. There is no part of our civilization that even resembles that of 100 years ago. We are not consciously, organizationally, systematically, culturally or socially the same. Tomorrow we will be even less the same than we were yesterday.

The question is not about whether or not you will change, it's about how you will change, your willingness to confront the chaos of essential change in a transformational age.

Do you remember the day you agreed to take this journey into the new age? Let me ask the same question another way - do you own a microwave oven? That's the day! You didn't agree to go into this new age through any conscious choice. You agreed to go into this new age through the resonating choices that advance the quality of your life. Everyday you made one of those choices, you took one step further into an age you can now no longer escape. We are already into the new age.

Positively or negative change ?

The universe uses two kinds of energy. It only has two kinds - positive energy and negative energy. The universe will use both to create change. It doesn't care if uses all the energy it has. The black hole is the

combination of negative energy, a bursting star is the combination of positive energy. All of that energy is present in the universe. You can change positively or negatively, but you will change.

Change is always moving. There is an invisible band of reality that goes around you and the change you see, regardless of what you do. The band of reality will eventually snap to wherever the degree of pressure requires you to be. That's negative energy. Without consent, without any opportunity to transition, to process, to adjust or to adapt - you will be where ever you are required to be. That's how negative energy works. The thing that is missing is engagement, consent, affirmation and participation. If you see that change is coming, ask yourself "what does this mean to me, and what am I going to do about it?" The minute you say that and engage it, the change is the positive exchange of energy.

The positive exchange of energy is the change that comes from the engagement. In the engagement you discern meaning, value, impact, response, formation, process, construction - doing all of that as we're moving in concert. Through the positive exchange, we're moving to where we're inevitably going to be.

You can choose the way in which you want to change. When somebody says "I'm not going to change" - I say "this will be very interesting for you because you will. The issue is how painful you want it to be." You have the choice over the degree of pain or you have the choice to create the framework, the resonance and the impact of that change in your life by giving it form through the exercise of positive energy.

Everybody doesn't have to change. A commitment has been made by 5% of the people not to change. They're smarter than we are, they've already held us hostage. The 5% are so noisy and aggressive that it looks like there numbers are greater. They are holding us hostage. 95% of human resource policies and procedures are to protect the 5% dysfunctional from the functional. We can no longer afford to be held hostage by those who aren't going change, and it's not necessary for everybody to change. When somebody says they don't want to go where you are going - help them go where they want to go. We're already on our way. The train is leaving the station. Help them with their bags and let them get off.

We've got too much work to do. We've got too much script to write. We've got too much healthcare to change.

Think of the impact of technology on our lives and how it has changed everything. Think of the

technology in perioperative services. Remember when cholecystectomy was a six-week experience? It was major surgery, now it's day surgery. Why? Because it's possible.

The Impact of Technology

I've worn thick glasses since I was 8 years old. I'm very, very near sighted. A few months ago I decided to correct that problem. In 7.5 minutes I went from very, very near sighted to 20/16 vision. I can read the numbers on the thermostat at the back of the room.

While I was under that drape for my procedure, I said to myself: What glass grinder am I doing out of a job? What frame maker will no longer have work because this will be the normative way of correcting vision problems in 10 years or less? The oculist will no longer have employment because there's certainly no need for that role and what about the ophthalmologist? Was my guilt sufficient enough to keep me from having the procedure? Of course it wasn't, here I am. My vision is 20/16. Why? Because it's possible. That's the message we need to keep.

We are moving into a new world because of the possibilities that are inherent in technology. It creates new realities, creates a new understanding of our conditions and our circumstances. As we change, as we age, and as we move, technology is going to create increasing difficulties in terms of what we know and how we know it. Just think of the drama of that change as we begin to confront new realities. Think about computer technology and what it has done for the world.

The Impact of Computer Technology

National boundaries, for good or for ill, are becoming more and more artificial. Today, \$70 billion dollars will move across the global stage. There was a time not too long ago when economics was a national enterprise. Economics is now a global enterprise and now we are driven by global intricacies. The market never closes.

The issue here is to begin to recognize that on a global stage the realities are different. The sociopolitical issues are different. Much of the social-political reconstruction is a response to technology.

Let me raise one of the most delicate and most important significant political issues of the time - do we need parliament if we can vote on the Internet? How does the Internet alter the democratic process? What if you can get all of the issues and information to everyone? The Internet makes information avail-

able everyone. Think about the drama of that, and it's impact on us.

In the past six years we doubled the capacity of all the knowledge we aggregated over past 5000 years. Think about what that implies. You can now access all of that knowledge, wherever you are, if you have the technology. Those of you, who are not computer literate, if you're worried about the future, you can stop now. If you're not computer literate, you don't have one.

Knowledge will double every six months

Computers are the future. Everyday you live, it becomes more and more personal in terms of how it affects your life and what it does to your life.

Did you know that your work is now greater than your ability to do it, because there's more to your work than you'll ever know. Our understanding of that is growing quantumly every year. Look at what's going to happen to knowledge in the next five years. Its going to double, then double again. In 10 years we will double the capacity to know every six months. Can you cope? Think about what that implies. Today you are gaining a dawning reality that you don't know enough to do what you do. More importantly, everybody else is beginning to know that too. They can access the same information you can. Where? *Netscape.com*. *Netscape.com* is the window to every piece of medical information available in the globe. Anything that is documented anywhere, visualized, codified in terms of medical information is already available to whom? To anybody who wants to access it. You can never, ever again know enough to do your work. How does that affect competence? You can never, ever be competent again. What you don't know is greater than what you do know. In the age that we're leaving, the Industrial Age, we valued knowing. We valued the capacity for knowing. We valued knowledge, and we spent a lot of time getting it.

Take a look at me. I'm a very well educated person. If you didn't know that, now you know. What do I know all about? Yesterday's stuff. My contextual framework, learning and experiential framework is firmly grounded in an age we're leaving. I now realize that I can never know everything I need to know in order to be able to thrive in the age into which I'm moving. Now, I have to unbundle my attachment to knowing because I realize that as I cross the paradynamic boundary into the new age, the new reality is not about knowing. It's about

accessing. In the old age we needed to know how to know. In the new age, we need to know how to access and think of how that changes us. Think of the challenge that it creates. We can never know enough. Think of what it does to physician practice.

The Patient - Physician Relationship

In my own practice in Atlanta, one of our primary physicians came in with an Internet printout and says... "Look at what they're bringing". They're bringing the Internet printouts now. They're writing their questions underneath, and I don't understand what it says..."

Think about the implications here. The physician can no longer be what the physician once was. The physician can no longer be the centre of knowing because it's now possible for me to know more about what I'm interested in knowing than he or she does, simply because of access.

I have access to this knowledge on the Internet. I may not be skilled yet at the questions, but I'm getting skilled at the process. The more skilled I become, the more I make of it, the more I'm going to be able to access what I need. Then I'm going to bring that to the physician and my role with the physician will change because I'm no longer going to the physician for what he knows. So how will this change our relationship with the physician?

What if knowledge the physician has about the diagnosis he's about to make is only 10% of the available knowledge related to that diagnosis? What if it's your diagnosis? How do you feel about that? The physician is making a judgment about your future, your health, your condition and the therapeutic intervention on only 10% of the available knowledge, and you know it. How does that change your relationship with the physician? And how does it change the very character of healthcare delivery. It creates new realities, new priorities, a whole new framework for those priorities. Our priorities are changing.

Chemotherapeutic technology is decreasing the dollars devoted to surgical intervention. Surgical intervention as we know it today is in its last days. New priorities emerge, a new frame of reference. As perioperative services change, as they become less intensive, less invasive, less functional, and become more focused and more mobile, how will it change what you do, who you are and where you do it?

Nurses are still trying to do what patients no longer need. Why? Because it's possible. Do you

think the patient wants to stay for you? It's time for a reality orientation. Our colleagues on the floor don't realize that the bed is on wheels and it's rolling towards the door. The nurse is saying "come back", you didn't get everything I have to offer. We want to do in five days what we once did in 10. We want to do in an hour what we once did in a day. Colleagues, it's not possible.

The patient is not coming back. It's time to mourn the loss. It's a reality orientation that we need. We need it as a wake-up call, a call that's inviting us into a different space and a different relationship with patients.

If you were given a choice between the five-day open heart procedure, or the two-hour procedure, which would you choose? If you chose the two-hour, whose time is no longer required? Whose role is no longer demanded? Whose experience is no longer pertinent to that particular event? That's the drama colleagues. New priorities are emerging.

Shifting Priorities

Our spiritual priorities change when church is over - they become parking lot priorities, because you're determined not to be in the parking lot the same length of time you were in church. I recently left church behind an old couple who may have had the same priorities but not the same pace. Being a tolerant gerontologist I quietly walked behind them. The wind blew up the woman's dress clear over her head and she grabbed for her hat. Her husband was horrified. He said "what are you doing grabbing for your hat"? She said, "Look, everything below my neck is 75 years old - this hat is brand new"! She had her priorities in order.

Colleagues, it's time to grab for your hats. Our priorities are shifting and it's time to recognize what that means and where it takes us.

We have to recognize the the character of the journey is changing. Our work is much larger than we'll ever be able to do and it's changing before our very eyes. Much of the work of this time is to let go. Let go - so we can discern more creatively and more compatibly those things that go with us and those things that stay behind. The very conditions that technology alone created are changing the very character of your relationships in healthcare?

That physician colleague of mine with the computer print out came to a reality that day. He said "I can't be the same physician I once was. They don't come to me any longer for what I know. They are now going to come to me to help them better access what

they need to know". Think about that. That requires a different relationship. That requires a different skill set. The next thing he said to me was more important ... "I don't have those skills. It wasn't required. It wasn't essential that I have that kind of relationship. It now demands that I be a partner to this person. I've never been a partner to that person. I've been an ascendant decision-maker. That person came to me because they had to and because of my knowledge and my skill set alone, I had an ascendant relationship with that person". That person making those choices may choose the access and the relationship they will have with the healthcare system. The drama that creates is significant.

Alternative Medicine/Consumer Control

The fastest growing arena of healthcare is alternative medicine. It's growing at 18 times the rate of any healthcare service in the country. Who is control of that growth? The consumer is. Consumers are in control and they pay for it themselves. It's the least validated, least organized, the least substantiated part of healthcare, but it's the fastest growing component because it validates the change in the locus of control that has already occurred - the movement of control of healthcare from the provider to the consumer.

The major role of nursing practice today, at the cusp of the new age, is to transfer the locus of control from provider to consumers and to make sure that the control they have is informed, wise and appropriate. We have to make sure they have the right skill set, not make sure that we do. What if that's the major work? What if the work of the new age is to transfer ownership for decision making from the provider to the person who was once the patient. What if the real goal is to stop providing patient care?

Debedding Healthcare.

Why is the patient a co-dependant, late-stage, passive participating, late engager, too sick to do anything about it player in healthcare at a time when that is no longer a viable model for the future of healthcare? What if the patient is the last thing that we want to have in the emerging healthcare system? What if the dependency the patient has, we created?

Yes, we do sick good. We're very good at sick. Why? Because we wake up every morning and we pray that those beds will be full so that we'll have a job tomorrow. Now the opportunities, the options and technology is changing the bed as the basic unit of healthcare. What we're in the process of doing is

debedding healthcare. You have watched it happen!

In North America, by the year 2010, we will have reduced bed-based healthcare by 637,000 beds. That doesn't mean that people won't be sick, it just means that we will care for them differently. It doesn't mean that people won't need us, it just means that they will need us for different things.

The rate of change in the technology of intervention is now moving at a quantum rate. The outcome of that becomes even more critical when we realize that much of the content of our practice represents what **we were** rather than **what we're becoming**. What if the major work of the profession of nursing now is to assure that people never become patients? How would that change the content of our practice? What if most of the work that you now do in hospitals in the next 20 years will not be done there? Technology is now making it possible so that much of the work of surgery can be done anywhere. Anywhere!! In mobile units.

The age now demands a different frame of reference for who we are and what we do and calls us to a different place. The issue is to recognize that it's going to be noisy, it's going to be traumatic, it's going to be risk-based.

Preparing the Consumer

The consumer needs to be in control, but is unprepared for that control. The consumer is the least prepared for the change going on. What if most of the work of nursing is now preparing the consumer for the accountability the consumer doesn't have? The accountability that was once yours now belongs to the consumer and the accountability that is yours is making the consumer more accountable and therefore more viable. It's a tremendous obligation. It's a noisy place to be. It's a place where there is an entirely different mental model. Think about the changes of the mental model and the change language creates in our mental model. Think about the importance of language.

Remember when safer sex meant your parents were away for the weekend? It doesn't mean that anymore. Language is important. We now have to have a language change. In the old age we took care of patients. In the new age, no more patients. Our goal in healthcare in the new age is to make sure that patients don't happen. Now of course patients will happen, but we want to make sure that that is the diminishing reality in healthcare? In the old age the hospital was the centre of delivering service, in the new age, services are mobile. In the old age, our skill

sets were fixed, finite and functional. In the new age, our skills are forward, flexible and focussed. In the old age, we have a fixed place, a fixed skill set, a process that we went through - in the new age we have a mobile skill set. In the old age, the symbol of advancement in an organization was promotion. In the new age, the symbol of advancement in an organization is mobility. The more mobility you have, the more viability you have.

Change Your Language

There are very few places that you can vertically advance any longer because advancement is now a horizontal equation in a system-driven world. Look at the drama of change. New language. My challenge to you colleagues is to change only two words in your lexicon. See if you can do it. Never use the word patient again. See how it changes your practice forever. Never use the word sick again and see how it changes your work forever. Just try it and see the impact of language.

Language is important and a change of language will be important to you. Try to eliminate those two words and see how difficult it is to get out of your frame of reference. Think about what would happen if the consumer actually did exhibit control in healthcare. Think about the client who comes into your hospital wanting to control just one thing. When the consumer comes to the hospital the last thing we want them to have is an identity. It's not accidental that we strip them naked. We'd send their teeth home if we could.

The Donnelly studies in California indicated that 80% of what a patient receives in a hospital doesn't require that they be naked. They could actually keep their own clothes on. We don't want that because if they did, they'd have an identity and God forbid they should ever act on it. It would throw us into chaos. That's the drama. Think of what we have to unbundle on our way to what technology is creating. Technology is producing the shift in the locus of control to people who are not yet ready to accept it, from people who are not yet ready to transfer it. That's the drama of the new age and critical to our understanding.

Part of the challenge that we have in our journey is to try to discern what are the characteristics of the journey, where it is taking us and what it means to us as we go. The issue isn't whether we're going or not.

Take a look at cardiac services in North America through the introduction of "staten"? drugs. The drugs which now lower cholesterol. Look at the

impact they have over the next five years in terms of coronary artery surgery and other cardiac procedures. In North American, the introduction of **Staten** drugs will create a reduction from \$40 billion in cardiac procedures to \$30 billion by 2002. What if your particular hospital services are largely cardiac related?

What does the introduction of only one chemotherapeutic process do to our services? What does it do to the mix of economics and activities that we provide? How will it change it.

In Atlanta at Emory University they're doing chemotherapeutics now in selective heart cases as the routine. What will chemotherapeutics do to any hospital where 20 or 30% of their surgical or procedural activities are cardiac related? Think about that drama.

Micro Technology Provides Mobility

Technology is growing not at a static rate but at a quantum rate. The more it grows the broader its impact. The more micro the technology, the lower the cost per unit of technology and the more portable it will make us. Increasingly the portability of technology is driving the future of healthcare. What will that portability will do to your practice?

In terms of documentation and communication, I have a computer that I can carry in my pocket. Only this computer is highly mobile and has much more infrastructure in terms of its mobility. This computer has a screen and it has a pencil. When I turn it on and write on the screen, that writing is transferred to text automatically. Whatever I write can be beamed through the satellite back to whoever I'm sending it to as long as they're connected to the same satellite. There's also a camera on this computer that has the potential and the possibility of picturing me on the person who is receiving and picturing them on my receptor set. Beam me up!

This is the device for documenting healthcare for the future. You'll simply carry it in your pocket. When you wake up in the morning and you want to know what the surgical schedule is at home, you'll simply scroll-up your schedule. You'll even bring up your assignment - wherever you are.

Let's say across the city there is a physician who flipped open his computer and put in his code and there is his surgical patient who's lab study was ordered and that patient's name is flashing before him. He punches it and it says "look at lab results". The lab is flashing..... He give the patient an extra dose of whatever Where did he need to be?

If you needed to talk to him, you could dial him up. Hold the computer screen in front of you - why there he is. For the first time in your life you have the physician in the palm of your hands. Where do you need to be? There he is. Why? Because it's possible. Some say technology is inherently alienating - well what do you need to do? Smell his breath?

Tomorrow's Technology Today

This is not tomorrow's technology. The only difference between you and me is that I have the hand held computer today and you don't. That's the only difference. You will be able to manage mobility because increasingly mobility will be the way in which we provide relationships, document our care, and communicate with each other. With my model you don't have to keep notes because it's digitally voice-recorded so that your meeting is compressed in voice-recorded digital processes. You can recall any piece of it you want and so can anybody else with access to it. This is the device that you will have within ten years. Remember, paper documentation is a historic process. In two generations from our children's generation, they will not write cursively. Writing cursively will be as historic as pounding letters in tablets. Why? Because it's possible.

We were doing some care planning activities in a hospital a couple of weeks ago, and talking about computerizing a lot of the models and doing the light pen process. One of the nurses sighed and said, "...What's wrong with a cardex?"

Well, there's nothing wrong with the cardex. It's just not the cardex age. It's possible to be different and do it differently and therefore those possibilities will create the essential differences, and we will be increasingly portable in that process. Everyone of us will have that portability. How will it change what we do and-how we do it? The greatest impact on future surgery is growth in chemotherapeutic processes which reduce the requirements for surgery. That is the drama that calls us to a different place.

The Drama of Aging

Look at the change in the characteristics of aging and the aging population. We are not going to age like our parents aged. Most of us will live until we're 100 years old. Are you ready? It was a shock to me. My parents are living until they're 90, perhaps 100. It's a guarantee that I, barring accident or trauma, am going to live to 100 years old and I'm only prepared

to live until I'm 80. That means I have 20 years that I am unprepared for. I have to work much longer than I assumed. I'm not ready for it.

We're not going to be old like our parents. I'm 52 years of age. I'm not my parents' 52 and neither are you. Our parents aged acutely and we treated them acutely. We are going to age chronically. We are going to die one joint at a time. Perioperative nurses know. We're going to have every joint replaced- one joint at a time.

The Implications of Longevity

We cannot afford to maintain the same kind of healthcare system we have today for the population we're becoming. Society can't pay for that kind of healthcare. It is not possible to care for the aging population that we're becoming, in the same way we cared for the aging population we have now, because we haven't got the resources. When we become, in the year 2050, part of the 30% of society over the age of 65, who do you suppose will have the resources to support our demands if we don't change both the demands and the construct of the healthcare system. There aren't enough people there to pay for it. That's a part of the drama.

Over the next 20 years, Canada and the US, are threatened, at the policy level, with a healthcare infrastructure that will kill them both if we don't alter it. The only way we can alter it at this stage is to unbundle the infrastructure to change the character and the location of its unfolding. That includes changing it to serve those who are under-served, and those who are minimally served.

Two Factors Will Alter Healthcare - Cardiac Services and Aging

I bring up two factors that will alter the healthcare system in major ways over the next two decades: cardiac services and aging. Only two factors out of 325 diagnosis related factors that we could have addressed. If I'm only addressing two factors, and you start thinking of the considerable impact just those two factors have on the future of healthcare, imagine the impact when you aggregate those two factors with all 325 indicators.

Colleagues, it is the end of nursing practice as we know it and the beginning of nursing practice as it will become. We're the script writers. If we're not at the table writing the script for the future of healthcare, remember it's getting written. Ask who's writing it and what do they know? Since they don't know any

more than you do, what does the script look like? The issue isn't whether the script is going to happen, the issue is what is the script going to look like and we're not at the table. The script is non-sustainable if those who live it aren't at the table. We are the scriptwriters! Make sure the players get to that table when the script is being written. That's the challenge.

Hope of the Future

The hope of the future is directly related to how much of a role we play in writing that script for the future. As a profession, we have the strongest role to play. Do you know that we're the only profession of all of the health professions whose primary role is the management of the journey and not of the events. Our primary role is to see that it's the right journey, that the right events are happening, that the patient's journey is an effective one. We're at every place in that experience in order to ensure that when all of the pieces come together the patient's experience has advanced their conditions and their circumstances. We're journey-based folks, we are interested in the patient's journey not in any given event.

My biggest fear is that we're going to hang onto what we were, that we won't embrace what we need to be to act in the best interests of those we serve. How many times have you watched your colleagues holding desperately to activities they needed to give up? How many of the processes and functions and activities of perioperative practice really need to be handled by the technical folks so that you can be free to handle the important things. The management of the journey, the understanding of the consumer, the decision the consumer makes, the continuum relationship, the relationships in terms of safety, and value, and health, and sustainability. All of those things are our professional obligation so that the functional obligations do not become an impediment; so that the consumer is protected from the dangers that are present in the technology as it's applied; so that the technology applied advances the patient's situation, circumstances and life. In the old age we managed sickness, in the new age we facilitate life process.

Politics and Good Strategy

We have to remember that a part of the drama is the politics of it. I've had nursing colleagues say to me. "Oh, I don't want to be involved. I don't want to play politics". Well colleagues, politics is the science of relationships. Politics is the game of life. If you don't want to play politics, die! It'll be easier on you.

You play politics in every part of your life. When you go home tonight your husband is going to play politics with you. Your kids are playing politics with you every day. Yes, every day.

Do you have kids under the age of 18? Did you know they were aliens? They are the first generation born into the new age and they're barely, barely tolerating you. They're different from how we were different. Why? Because they were born in the new age. When we have problems with our computer, we still think it's the computer's fault. At home, who do you think we get to fix it? Yep, the kids. If you notice that after they've fixed it and it's working, they sigh. Why? Because they know you're never going to make it. They're going to have to tolerate you through the whole experience. It's a different world and a different place. We're moving to a different place. It's going to be hard work, and we have personal work to do as we begin to move into the new age.

Information Infrastructure

We're moving out of institutional structures and into systems. The architecture for the future of healthcare is no longer bricks and mortar, it is the information infrastructure. The information infrastructure is the architecture of the future of healthcare, it's the cornerstone. In Canada, 50% of the capital resources that will be spent over the next decade will be spent on building the information infrastructure across the clinical structure and clinical system. Information efficiency, efficacy and skill sets will be essential to everyone of the practitioners in increasing amounts of percentages of time and skill.

At the personal level, my agenda is twofold. Number one is to become more technically competent and to be able to interface better with the technology that facilitates my ability to connect. Number two is to build relationships with players I haven't learned to like yet.

New Skill Set for Physicians

Physicians don't realize that the practice of medicine in Canada as it was constructed, is already dead. Physicians have to build a different kind of relationship, they have to be partners. The physician is now a partner with a role to play. That's a new skill set for physicians. Partnership behaviours are behaviours they were never taught. They learned ascendant behaviours. They were the final authority, the ultimate authority. In many of the provinces, there's even legal protection to assure that they are always the final authority. Now that legal protection is no

longer adequate to the crisis, and issues, and consumer's concerns that now have to be confronted as a team. In the old days, the basic unit of work in healthcare was the individual. In the new age, the basic unit of work is the team.

Team is a synonym for sustainability. Team and sustainability are essential because no single person creates a sustainable outcome. You can create an incremental outcome but not a sustainable outcome. Sustainable outcomes can only be created through the aggregation of work. What does that mean in practical terms? Nobody can do what you need to do in the perioperative processes alone. The perioperative process is essentially a team-based process. The ability of the patient to thrive is a product of the work of those who did what was necessary to create the conditions of survival and no one person can do that. The greatest lesson for the surgeon is to recognize that the surgeon's skill set, while central and vital to the process, is only one component of what is necessary to the process. If all of the other pieces were missing the surgeon's skill would have no value. But that's a hard lesson for the surgeon to learn.

The Music of The Work

The effectiveness of the surgical procedure is embedded in the concert of work, the flow of the goodness of the process - everything moving effectively - and not simply in the surgeon's skill. So the challenge is to recognize that the sustainability of the patient is the degree of the efficacy and fluidity of the concert and not just the skill set of the surgeon. When I'm going to have surgery, I don't talk to the physician. I call my friends in the OR because they know where the music is. They know where the concert is best played.

Essentially, the circulating nurse is the conductor of the concert. They're the facilitators of the music. Have you ever seen yourself in those terms? That's an essential mental model for the change into which we are moving. The future of healthcare is in every level of service, that relationship, that intersection, that functional interaction is critical to the sustenance of healthcare when the script is health, rather than sickness. That behavioural pattern will be essential to the sustenance of the care we provide. Again, it's a new mental model, it's a new way of looking at it. The politics of building that relationship means being able to confront the issues as they are. Being strategic and wise. Strategy is a part of politics. Politics is just the management of your relationships. We all manage our relationships. Politics is managing your relationships well and recog-

nizing how important strategy is to a character of the relationship.

The issue here is to recognize that we're going to be managing relationships as we build new structures for our future. A part of the understanding is to recognize that at the cusp of the new age, as we cross the paradigmatic boundary, as we move into the new age, we as people and organizations are becoming different. We are becoming a learning organization, we are not a hospital any longer. The hospital is what you're unbundling.

Your role as we pass over the paradynamic boundaries, is to make sure the hospital is not the centre of healthcare. Symbolically what you're doing, what you're required to do, is to be to close the door on the Industrial Age and all of its constructs. Then, turn around to perceive what it is we're becoming in the context in which we're becoming. Turning around is important. Part of the unbundling as we pass over to the new age is to become something different. Take a look at the three things that we're going to need to unfold as we become what it is we're becoming: we need to be capacity building; we need a new practice; and, we need to be creating evidence as we create a new healthcare system and move to a new place. It will be very, very important that we do that as a part of our design.

The first thing we need to recognize is that our systems will change as a part of adjusting to the capacity for the future of work. Information technology will now drive the structure of organization. The question that nurses have in the OR is how does information technology adjust what we do clinically, relationally and systematically. How does information technology change what we do clinically, in terms of a relationship with each other, and in terms of the system? How does that information change what I do and what it is I become, and how do I address that?

New Ways of Working

In less than 20 years, as we become more decentralized, most of the surgical procedures done in the surgical suite won't be done in the surgical suite any longer. So a part of your role in looking at your career is beginning to ask yourself some questions: I am not always going to be where I am today. I'm not always going to be located in this place with regard to this service. What does that mean in terms of my mobility, in terms of my fluidity, in terms of my skill set and how does that address how my practice will unfold in the future? There is a nursing shortage in North America - Canada and the United

States. Most of the nursing shortage is in bed-based services. That shortage will never disappear because there are now fewer nurses in the places where there will ultimately be fewer beds. And more nurses are going to places where there are no beds. That is a part of the drama of building new ways of service.

Conclusion

Remember, the script of the old age was late engagement. We waited until people got sick and then provided them good service. Now as technology, economics and sociopolitical change push us over to the other side of the paradigm, what is the script that drives us? What is the role of healthcare? What is the role of your professional practice? Three-fold: it's health-driven; it's socially-based; and, it's consumer-orientated, which means that now we have to change the script from late engagement to early engagement, from sick based to health based. From event-driven to continuum driven. Do you see the dramatic shift in the mental model and the service model of the old age to the shift to the model in the new age? Technology now makes it possible for us to follow people's lives. To have in a small world of space all the data which aggregates an individual's life. Now there's dangers in that. There are ethical and legal issues involved in information technology that is digitally-driven. If I can contain all of my patient's life in the palm of my hand, and have every moment of their life as a part of my documentation records, there not ethical, moral, and legal issues involved. That is something we will have to confront in the new age. But now it's possible for us to look at the person we serve in the context of the event within their life, instead of looking at their life in the context of the event, as we did in the old age.

Our major role in healthcare, colleagues, is to reconstruct the hospital. That is our role. That is nurses' role over the next 10 to 15 years. Deconstruct the hospital in order to put healthcare together in a different way in consonance with the drama of technology, politics and economic changes that are driving us. Secondly, nursing practice. The content of our practice is going to be different.

On Monday morning you're going into the OR and you're going to radiate enthusiasm and tell everybody... "It's a whole new world and I have embraced it!" Tell them they're all scriptwriters, and together you are going to write the script for the new age. ■

RNFA Update

By Susan Carver, RNFA

The pilot project at the British Columbia Institute of Technology (BCIT) for the RN First Assistant Course has been in progress since April, 1999. This is a national program done "on-line" and has 17 perioperative nurses from across Canada actively studying and communicating in cyberspace.

The class of 17 registered nurses met this summer in the 'face to face' portion of the program - seven from Ontario, two participants from Saskatchewan and eight from BC.

Meeting together in Burnaby, BC for the week further allowed this first class the time to discuss how they see the future of the RNFA role in Canada. Great friendships were made and a reunion is planned for next year.

The students returned to their respective hospitals fulfilling their internship requirements to the end of the year. Another course has been planned starting in 2000. Information about this course can be accessed through the ORNAC website - www.ornac.ca

Marnie Simon, RNFA Program Leader, is to be commended for her work over the past ten years in seeing this course come to fruition. It has been a dream come true for nurses like myself to have access to the Canadian Registered Nurse First Assistant program.

Research is certainly part of a RNFA's role. The nurses from Saskatchewan will be involved in a survey which will show their patient contact during their internship. In Ontario, at the Brantford General Hospital, my colleague Karen Allen and I hope to be involved in a proposed study that asks the question:

"In a Community hospital RNFA's will provide proficient, cost-effective surgical assistants?"

This study will start in the very near future. These and future studies will hopefully be influential in obtaining funding for this new advanced perioperative nursing role in Canada.

Conference Calendar

October 27 - 30, 1999

Operating Room Nurses Association of Alberta Provincial Conference, "Pinnacle or Precipice". Location - The Lodge at Kananaskis. Contact Connie Schulthess, 703 Penbrooke Rd.S.E., Calgary, AB T2A 3T3

October 30 & 31, 1999

ORNASCO Conference at Pinestone Haliburton. Theme: Relax, Refresh, Rejuvenate. For more information contact Donna Plue or Shirley Shacter @ (705) 325-2237
(705) 325-2692. Hospital: (705) 325-2201

November 15, 1999

Call for Abstracts: Canadian Otolaryngology Head & Neck Nurses 3rd Annual Symposium, Toronto, ON - May 28, 2000. Deadline for Submissions: November 15, 1999. Contact: Mary Scott @ (416) 340-4665

May 3 - 6, 2000

BCORNG Conference
"A Peak Experience"
Whistler, BC.




2001 in Banff

17th ORNAC Conference - Banff, Alberta. Conference Chairperson Gloria Nemecek.

WWW@

Websites for Operating Room Nurses:

The Operating Room Nurses Association of Canada website:  www.ornac.ca

American Operating Room Nurses: www.aorn.com

CNO Guide - "Providing Culturally Sensitive Care" Spotlighted at International Nursing Conference

A new guide on providing culturally sensitive nursing care, produced by the College of Nurses of Ontario (CNO), the regulatory body for the nursing profession in Ontario, was spotlighted at the International Council of Nurses Conference in London, England this past summer. *The Guide to Nurses for Providing Culturally Sensitive Care* was recently distributed by CNO to its 140,000 members across the province. Four Ontario registered nurses (RNs) with wide experience in different nursing settings presented the document to the London conference.

"It is said that Toronto is one of the most ethnically diverse cities in the world, and other parts of Ontario aren't far behind," says CNO Executive Director Margaret Risk. "Ethnicity is by no means the only component of a person's culture, but this diversity is indicative of the challenges Ontario nurses face in delivering therapeutic care to patients whose culture may be significantly different from their own."

Culturally sensitive care is part of basic nursing practice; CNO identified the nurse's and the client's values and beliefs as key elements in the nurse-client relationship. The *Guide to Nurses for Providing Culturally Sensitive Care* was developed through consultation with nurses across the prov-

ince to help nurses better meet the needs of all clients. It is a core standard of practice document that all Ontario nurses are obliged to be aware of, and to follow.

The *Guide* outlines the basic concepts in learning about culturally sensitive care, and illustrates them with actual case studies. There are several assumptions that form the foundation for providing care that is culturally appropriate. Some of them are:

- Everyone has a culture, and it is not always visible. Culture is much more than just ethnicity, race or religious affiliation.
- Culture is individual. Careful individual assessments are required for each and every client.
- Culture is dynamic. It changes and evolves over time as individuals change over time.
- A nurse's culture is influenced by personal beliefs as well as nursing's professional values.

The nurse works with each client to produce the best possible care outcome.

"This document will be an excellent resource for all Ontario nurses, and we're pleased to have been asked to share it with nursing leaders from around the world," says Ms. Risk. "It's a great credit to all the nurses who participated in its development."

ORNAC in a Nutshell

Prepared by Corina Balcom

The Executive and Board of ORNAC met on June 12 & 13, 1999 at the Halifax Sheraton, Halifax Nova Scotia. 5 Executive and 20 Board members were present. Following are highlights from the meeting.

A Strategic Plan has been presented which will give ORNAC direction for the future. ORNAC continues to hope that a National Headquarters will be realized in the future. Should that take place, gifts that have been given to ORNAC in the past would be kept there. Guidelines have been developed to ensure J&J/ORNAC Paintings will be returned to ORNAC if and when this happens.

Over the past year Officer's Liability Insurance is finally available for officers of ORNAC. This has been a long process and has been done in collaboration with other CNA associate group.

ORNAC is about to sign a contract with the Canadian Standards Association to distribute the French and English ORNAC Standards. This task has been done by the Inventory Officer to date and has been a busy one. (See page 46 to order)

The Awards Committee reports that Awards will be presented at the Conference for the J&J Writing Award and the Isabelle Adams Award for excellence in Nursing. One bursary has been presented to Wendy Walsh of Newfoundland to help further her education.

The research committee has been busy in the past year developing an ORNAC research grant and the first will be awarded at this conference.

Currently the Standards/Education committee is working on revising the approval process for Post graduate courses in OR nursing. The Board is in agreement that CNA should be approached to consider lowering the cost for recertification. A list of Post grad OR courses for Registered Nurses has been revised and is available in the Journal and on the WEB page. ORNAC continues to have representatives on the Canadian Standards Association and the CCHSA.

Advanced Nursing Practice committee will continue to be present at the Task Force meetings on the role of the anaesthetic assistant along with representatives from the Canadian Anaesthetists Society and the Canadian Society of Respiratory Technologists. It is felt the advanced nursing Practice roles of Perioperative Nurse Surgery and Perioperative Nurse Anesthesia be monitored across the country and information on all aspects of this be shared. This includes education

programs that are available and where nurses are functioning in these roles.

The translation committee will translate the Research Grant information and have it available on the WEB page.

The Editorial Advisory Committee continues to hope that French articles will be included in the Journal. A Business Plan to effect this is underway.

Plans are underway for the a national ORNAC membership card. This will be a Provincial/National collaboration in which a data base of all OR nurses who are members will be compiled by the provinces and available at both the provincial and National levels. It is hoped this will be available in 2000.

The public awareness committee has been responsible for the WEB page and it is getting bigger. Provincial information is now available from some provinces and others are invited to participate. There will be a national drive begun at this conference to launch the Pamphlet "Perioperative Registered Nurses Care for You". The committee arranged for a Lobbying session to be conducted by Carole Presseault, CNA The ORNAC song, shown at opening ceremonies has been updated to a video with more up to date pictures. The committee has created a Political Action Committee which met for the first time on Saturday. First strategy is to launch the pamphlet to ask all delegates present to distribute these in physicians offices, public areas, and during nurses week. Presidents of provincial professional associations and OR Managers will receive a package with pamphlets and covering letters asking them to participate in the distribution to surgical patients preoperatively and to the public.

I PC/FEderation The next year or two will see changes in ORNAC representation at the International level. Currently there is a new international group, IFPN who hope to break away from the IPC. ORNAC will continue to be represented on both IPC and IPFN until a decision has been made to stay with one or the other. Hopefully ORNAC will be able to make this determination within the year. Plans have begun for future National Conferences: Banff 2001 Winnipeg 2003 Montreal 2005 The historian, has recently completed preserving some of ORNAC's historical data. Minutes and reports have been put on Microfilm and original documents are being preserved. ■

Lifestyle, Community, Caring.

Full-time Career Opportunities for O.R. Nurses

As part of the Okanagan Similkameen Health Region, Kelowna General Hospital is a major regional referral centre in the heart of the Okanagan Valley. This acute care facility houses a progressive 8-theatre O.R. which provides a challenging, rewarding experience in all surgical specialties except open heart and transplant. Due to increasing demand for our services, we currently have **full-time opportunities for experienced perioperative nurses.**

Qualifications include graduation from a recognized Nursing program and current registration (or eligibility for registration) with the RNABC. Completion of a related post-graduate program and/or 2 years' recent related experience are also required.

The Okanagan Valley offers a unique lifestyle rich with recreational and family oriented activities, affordable housing and first class educational facilities. From lakeside to mountain, this year-round destination appeals to outdoor enthusiasts and wine lovers alike.

We are committed to excellence in health care and offer a generous remuneration and benefits package. If you are interested in joining our organization, please forward your resume, in confidence, by **November 1, 1999**, quoting **Competition #9925**, to:

Human Resources, Okanagan Similkameen Health Region
2268 Pandosy St., Kelowna, B.C. V1Y 1T2.
Fax: (250) 862-4386 E-mail: human.resources@oshr.org

THE OKANAGAN SIMILKAMEEN HEALTH REGION WISHES TO THANK ALL APPLICANTS FOR THEIR INTEREST. HOWEVER, ONLY THOSE APPLICANTS SELECTED FOR FURTHER CONSIDERATION WILL BE CONTACTED.



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The following vacancies are currently available in the Operating Room departments in the following hospitals:

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Participation in on-call rotation, weekends and nights is required at some hospitals.

Preference will be given to candidates with the applicable post-basic nursing programs for this specialty area and/or several years of experience.

We require Registered Nurses who are dedicated to providing superior care and are eligible to register with the RNABC.

Just an hour from Vancouver, the Fraser Valley offers very affordable housing in a beautiful environment of mountain peaks and rolling farmland. For a new lifestyle and a rewarding career, forward your resume, stating the position of interest to:

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7324 Hurd Street
Mission, BC V2V 3H5
Fax: 604-826-9327; Phone: 604-826-5251, local 101

We wish to thank all applicants, however, only those under consideration will be contacted.



FRASER VALLEY HEALTH REGION
"INTEGRATING HEALTH CARE"



World OR Conference

Helsinki, Finland July 25 - 30, 1999

By Vija Hay, IPC Member



A total of 1,423 registrants (17 Canadians) from 38 countries attended the World.

The World Conference on Surgical Patient Care was held at the Helsinki Fair Centre. Helsinki is a modern city with a marine location, green parks, splendid architecture, excellent public transport services and many places of interest for visitors. To top it off - the weather was perfect this summer.

The theme of the Conference was "The Essence of Perioperative Care", which was reflected in the educational topics throughout. The theme and topics were identified by the International Planning Committee members (IPC) that focused on patient benefits, outcomes, education, quality and commitment. Sessions included global economics of health care, infection control in the perioperative setting, ethics, specialty education, women's health issues, resource rationalization, workplace issues, care of the aging patient, patient expectations and experiences, and care of the health care professional.

Kristiina Junttila, Chairman of the Finnish OR Nurses Association (FORNA), presided during the Opening Session, marking the first time a host country's representative was given the responsibility to chair the opening and closing sessions. As custom-

ary, a processional of national representatives carrying their country's flag was the highlight of the Opening Session. Canada's flag was carried by Marlene Hill, President of ORNAC. The total number of registrants was 1,423 representing participants from 38 countries. Canada had 17 attending. It was a major disappointment that for the first time there were no Canadian speakers at the Conference. The two Canadian nurses selected to present a topic had withdrawn. The only Canadian on the educational program was Vija Hay who moderated a session. The educational sessions were of excellent quality. Translation was provided in Japanese, Italian, and Spanish and there was also a research poster display.

International Fellowship Night

The International Fellowship Night was a success! This evening is open to all participants and exhibitors for a fee. National dress is encouraged. It is an evening of fun, good food, music and dancing, exchange of small tokens, and much picture taking. The small Canadian contingent was once again a colourful presence in red and white, and much in demand and popular to those with cameras. As in Toronto in 1997, a contest for the "Best National Dress" was held. The difficult task of selecting a winner was delegated to the IPC members. The award went to two nurses from Zimbabwe.

The Global Hands Project, initiated in Toronto, was again a popular event. Conference attendees put

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their painted handprints and signatures on canvas. This canvas was presented to the Finnish OR Nurses Association at the closing session as a symbol of global partnership.

Finnish OR nurses gracious hosts

The Finnish OR nurses excelled in gracious hospitality. Hospital tours were available throughout the Helsinki area for more than 500 nurses. Marlene Hill, Donna Farid, and I took the opportunity to visit the Töölö Hospital. We had a complete tour of the operating rooms, recovery rooms, ICU, and reprocessing/supply areas. We were all impressed with the facility and their systems, and thought we would love to work there.

A reception for invited guests including IPC members, IFPN Steering Committee, AORN Board and Staff, and international representatives, was held at the Old Court House in Senate Square, hosted by the City of Helsinki.

As a token of thanks and appreciation for hosting and sponsoring the World Conference, a small gift from ORNAC was presented at AORN Headquarters to Kristiina Junttila, Chairman of FORNA, and Patricia Seifert, President, AORN by Marlene Hill, President ORNAC, Vija Hay, IPC member (ORNAC), and Donna Farid, Past President, ORNAC.

The official launch of the International Federation of Perioperative Nurses (IFPN) took place on Wednesday, July 28th following the International Forum. This was a significant event for global partnership of National Perioperative Nurse Organizations. Carol Webster, Chairman of IFPN, introduced the Steering Committee members, and gave a brief overview of the purpose and constitution of IFPN. New members are Hong Kong and Japan.

Getinge/Castle, Inc. was recognized as the first bronze level sponsor. Presentations were also made from Kimberly-Clark Corp., AORN, Certification Board Perioperative Nursing. Kate Woodhead, Chair., National Association of Theatre Nurses, presented Carol Webster with a gavel, and Ann Kwan a photo book of Hong Kong. At the Closing Session, Vija Hay, Returning Officer for IFPN elections, announced and introduced the newly elected Executive Board:



Official launch of the IFPN July, 1999. Steering committee members: (LtoR) Sue Vincent, Vija Hay, Carol Webster, Ellen Murphy, Marion Jones and Sam Barnabas of Getinge Castle Inc.

President **Carol Webster - Australia**
Vice President **Ellen Murphy - United States**
Secretary **Sue Vincent - United Kingdom**
Treasurer **Marion Jones - New Zealand**

Board Members are Mary Knight, Canada; Kay Mary Nicholas, New Zealand; and Vija Hay, Canada (appointed to the vacant position until the next election).

IFPN Steering Committee Meeting was held on July 26th with observers from nine countries. Marlene Hill, ORNAC President and Donna Farid, Past President, were in attendance. July 30th, a meeting was held with Steering Committee members and five Council of National Representatives (CNR) present. Marlene Hill is the CNR member from ORNAC. The Constitution was adopted. A Task Force was struck to begin development of international standards. The Task Force to be: **Chair:** Ellen Murphy. **Members:** Vija Hay, Marion Jones, and Anne Kwan. The first meeting of the Executive Board will be held October, 1999 in Harrogate, UK.

IPC Pre-conference Meeting was held Sunday, July 25th to review final preparations for the Conference week, and to tour the Conference facility. A Post-conference Meeting was held Friday, July 30th to celebrate and conclude the Helsinki Conference.

This concludes my term as IPC member. The next IPC representative from ORNAC is Marlene Hill, who will participate in the planning process of the next World Conference to be held in Christchurch, New Zealand, September 2 - 7, 2001.

Make every effort to attend this conference. New Zealand will be a unique experience!

Breast Cancer: So Much More Than Just a Perioperative Experience

By Cynthia McLennan, RN, BScN, CPN(C)

Perioperative nurses have been exposed to breast cancer and the various treatment modalities throughout their professional lives, and many have navigated the complex cancer care spectrum in their personal lives as well. Within their specialty they are well positioned to positively influence the outcome of individuals and their families who must travel the maze of the cancer care delivery system.

Cancer, in general, is an abnormal growth of cells caused by changes in the cell genes which are either inherited from parents or which are developed. Breast cancer is simply an abnormal growth of cells in the breast, which unlike other normal cells, continue to grow until they crowd out the normal cells. Breast cancer cells may disassociate from the tumour and travel via the blood vessels or lymph fluid to other bones and organs.

Incidence of Breast Cancer

Breast cancer is not a sudden occurrence, but a process which has been developing for a period of time, thus, it is not a medical emergency. It takes

approximately a billion cells to form a breast cancer one centimeter in size so, on average, most cancers have existed around eight years before they can be detected on mammogram and ten years before they may be palpated (Kneese 1995).

With 570,000 new cases of breast cancer in the world each year it remains the most common malignancy in women and comprises 18% of all female cancers (Sainsbury 1995). In Canada, the incidence of breast cancer is projected to hit 108 women per 100,000 in 1999, up from about 98 cases per 100,000 a decade ago (NCIC 1997). It is said that the chance of a woman developing breast cancer in her lifetime is one in eight, up from one in twenty in the 1960's. This refers to the lifetime risk of a woman developing breast cancer should she live to 85 years of age. In Canada there will be approximately 18,000 new cases of female breast cancer diagnosed in 1999 and approximately 5,000 women will die from this disease. The incidence of female breast cancer is increasing slightly at about 1% per year, however, this statistic may simply reflect the increased early diagnosis of breast cancers through screening programs. It is estimated that there will be a thirty percent increase in cancer incidence in general by the year 2010 (NCIC 1997).

Breast cancers are derived from the epithelial cells that line the terminal duct lobular unit of the breast. Non-invasive carcinomas, or carcinomas in-situ, remain within the membranes of the lobular unit or breast ducts. Invasive carcinomas disseminate from the breast lobules and ducts into the surrounding normal tissue. The majority of breast cancers are adenocarcinomas, arising from glandular tissue. There

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are over 30 histologic types of breast cancer with the most common, about 50%, being infiltrating ductal carcinomas. Another third of all breast cancers are combinations of infiltrating ductal cancers, and infiltrating lobular carcinomas. Ductal carcinoma in-situ (DCIS) represents approximately 12% of all breast cancers (Sainsbury 1995).

Breast Cancer Classification

Historically, breast cancer has been classified as either ductal or lobular, however further research has proven that this clearly defined delineation between cancer types is no longer appropriate. Thus, breast cancer tumours are graded depending upon the degree of cellular differentiation of the tumour. Tumours are routinely graded according to three specific characteristics: glandular formation; nuclear pleomorphism, the ability of the cell nucleus to change; and, frequency of mitosis, or cell proliferation. Each characteristic receives a score between one and three and the combined score of all three measured characteristics reflects the final score on the Bloom and Richardson scale. The combination of the three characteristics translates into three groups: grade I (scores 3-5), grade II (scores 6-7), and grade III (scores 8-9). This measurement is a strong predictor of disease recurrence and survival rates. The Bloom Richardson tumour grading is not the only indicator of value in predicting local recurrence and prognosis. The involvement of the vascular and lymph vessels is considered to be a marker for more aggressive disease and the presence of extensive in-situ breast cancer (Sainsbury 1995).

There are currently two staging classifications in current use that are used to diagnose the extent of breast cancer disease. The tumour node metastasis (TMN) system depends upon clinical assessment of the lymph node status and the International Union Against Cancer (UICC) system which incorporates the TMN system. To improve the TMN system a separate pathological classification has been added, allowing tumour size and node status which have been determined by the pathologist to be taken into consideration. Breast cancer stage at the time of presentation is directly related to prognosis (Sainsbury 1995).

Predisposing Factors

Presently, there is no single contributing critical factor scientifically linked to the cause of breast cancer, however, genetics, personal history and diet are all influencing factors. In fact, the majority of breast

cancers, nearly two-thirds, occur in women who do not have any identifiable risk factors (Buckman 1995). Western Lifestyle Studies have shown conclusively that women living in countries with a Western lifestyle have a higher incidence of developing the disease by up to a factor of five.

Other factors cited as causes of breast cancer:

- **Age** - The annual risk of a woman developing breast cancer doubles between 40 and 50 years of age and then doubles again by the age of seventy.

- **Genetics** - Family history is thought to be an influencing factor in the development of breast cancer for some women. Up to ten percent of breast cancer in Western countries is of a genetic predisposition. The inheritance of breast cancer susceptibility may be transmitted through either sex and some of the family members transmitting the abnormal gene may never get cancer themselves. About one third of the familial cases of breast cancer are thought to be due to the mutation in the BRCA1 gene on the long arm of chromosome 17. Another gene, BRCA2, has been identified on the long arm of chromosome 13 and, additionally, incidental cases arise from mutations on the p53 gene on the short arm of chromosome 17 (Sainsbury 1995). Thirty percent of breast cancer patients have the defective gene HER2 which is responsible for protein production that normally signals the cells to grow and multiply.

- **Family History** - A strong family history of any cancer in the family, especially breast, ovarian, colon, prostate and other cancers attributable the same inherited mutation increases the risk for breast cancer (Sainsbury 1995). Women who develop bilateral breast cancer, those who develop a combination breast cancer and another epithelial cancer, such as ovarian cancer, and women who get the disease at an early age are most likely to be carrying the genetic material predisposing them to breast cancer. Women with first degree relatives, such as mother, daughter or sister, who have developed breast cancer before menopause have a six fold risk at developing breast cancer. Women with first degree relatives who developed bilateral breast cancer have a ten fold risk in their lifetime (Dollinger, et al 1994).

- **Pregnancy and Breast Cancer** - The age at which the woman has her first full term pregnancy may also influence her susceptibility to breast cancer. Nulliparity, never having been pregnant, and late age of the woman at the first birth, usually over the age of thirty, increase the risk of developing breast cancer. The highest risk group occurs in women who have their first child over the age of thirty-five years (Sainsbury 1995). Interestingly, women who become

pregnant for the first time have a one-time increased incidence of developing breast cancer which is thought to possibly originate from the rapid proliferation of breast tissue that occurs throughout the first pregnancy resulting from high hormone levels. This increased incidence in breast cancer is not demonstrated in subsequent pregnancies (Rosner & Colitz 1996).

• **Menstrual Cycle** - Breast cancer incidence is greater in women who start menstruating early in life and who have a later menopause, usually after the age of fifty-five. It is thought that the increased exposure to estrogen as a result of the early start to menstruation and the later menopause may influence this finding. It is interesting to note that women who have had a bilateral removal of the ovaries, before the age of 35 have a forty percent less chance of developing breast cancer than a woman who has a natural menopause (Colditz 1995).

• **Benign Breast Lesions** - Women who have had previous benign breast lesions without atypical hyperplasia, unusual, unchecked growth, of the cells have only a slightly increased risk for the development of breast cancer. However, any woman who has had a diagnosis of atypical hyperplasia in any breast specimen has four times the risk of developing breast cancer in her lifetime. Women with atypical hyperplasia and have had a first degree relative with breast cancer, have nine times the risk of developing this disease (Buckman 1995).

• **Radiation Exposure** - The exposure to radiation, especially in women under the age of 20 years increases both the immediate and long term risk of developing breast cancer. However, the effects of mammography, as a form of radiation, is actually associated with a net decrease in the mortality rate from breast cancer among women over the age of 50 (Sainsbury 1995). The increased incidence of breast cancer in nurses and, more specifically, dental hygienists may have been indirectly related to past x-ray exposures (Morton 1995).

• **Diet** - Lifestyle is often associated with breast cancer risk. Women who are obese have a twofold risk in the incidence of breast cancer in the postmenopausal era. Premenopausal women who are obese may actually have a lower incidence of breast cancer (Burlington 1995). There is no concrete scientific evidence to prove a direct link between the incidence of breast cancer and the consumption of dietary fat, however, breast cancer rates are much higher in countries where women consume more processed foods and consume more meats in their diet (Baron-Borgen 1997). Some studies suggest that the incidence of

breast cancer may be reduced by almost 50% if adult women reduce dietary fat consumption dramatically (Giovannucci et al 1993).

• **Oral Contraceptives** - There does appear to be an increased risk in the incidence of premenopausal breast cancer for women who used oral contraceptives for four years or more before their first term pregnancy. It is not possible to determine if these women have an increase chance of developing breast cancer in the post menopausal state as the women have yet to reach this age in which to be studied. This situation is very similar to the circumstances earlier in this century where women were given diethylstilbesterol, DES, to prevent miscarriage and incidentally were found to have increased breast cancer occurrence later in life (Sainsbury 1995).

• **Hormone Replacement Therapy** - Hormone replacement therapy for women in the general public, and breast cancer survivors specifically, is a hotly debated topic. Women in North America usually begin to experience menopausal symptoms in the fourth decade of life, however, menopause can start earlier in women treated with breast cancer as a side effect of chemotherapy, or, as a result of removing their ovaries. This is called treatment-induced menopause and may be more severe, due to the rapid onset of symptoms, than a natural menopause (OBCIEP 1997).

The health risks associated with menopause such as heart disease and osteoporosis, the loss of bone mass, have been strongly linked to lower levels of estrogen especially treatment-induced loss of estrogen (OBCIEP 1997).

• **Breast Density** - Research has shown that women who assume a low fat diet can significantly reduce breast density, thereby reducing their incidence of breast cancer. Women with dense breasts appear to have a five times increase in the risk factor for breast cancer so if dietary refinements were to be adopted there is a strong possibility that breast cancer prevention may occur (Snyder, Seilch & Reville 1998). Additionally, women with dense breasts experience more false negative mammograms as mammographic efficacy has been directly related to breast density. Thus, it has been stated that women with dense breasts have an increased incidence of developing breast cancer in their lifetime, perhaps in part, as a result of poorer screening methodology (Baines et al 1997).

Tamoxifen

Just as it is impossible to choose your sex, family members or to cease the aging process, it has been likewise impossible to prevent breast cancer with any certainty. Research has indicated that it may be possi-

ble to actually prevent breast cancer by manipulating the hormonal milieu of women at risk. Chemoprevention with a selective estrogen receptor modulator (SERM), such as the medication Tamoxifen, and when used as an adjuvant treatment for breast cancer, has shown promise in reducing breast cancers by blocking the hormone receptor sites on the cells (Kneece 1995 & Major 1998). Studies have conclusively shown Tamoxifen to reduce the incidence of breast cancer in women of increased risk by as much as forty-five percent (Logan 1998).

Tamoxifen is a type of hormone therapy used to treat breast cancer and, more recently, as a preventative treatment modality. It blocks the estrogen receptor sites on cells, thereby preventing the growth of the cancer cell. To attain optimal efficacy Tamoxifen works best in women who's cancer needs estrogen to grow. This estrogen-receptor positive breast cancer is identified at the time of biopsy.

Breast Cancer Diagnosis and Treatment

Prior to the initiation of any treatment for breast cancer it is essential that a confirmed pathological diagnosis be obtained. There are four primary methodologies for obtaining an accurate tissue diagnosis: (i) a fine needle aspiration is used on a solid lesion and is performed most often in an outpatient setting; (ii) a stereotactic core needle biopsy is used with solid, non-palpable lesions most often detected mammographically in a diagnostic imaging centre; (iii) a core needle biopsy is utilized most often with solid accessible tumours and performed in an outpatient setting; and, (iv) a surgical biopsy used to access a solid palpable mass which is most often biopsied in a day surgery setting. Once a confirmed diagnosis of type and stage of carcinoma is determined in addition to the hormone receptor status of the tumour, treatment options may be explored (Engelking 1995).

Treatment for breast cancer is commonly referred to as either local or systemic and the decision to proceed with either treatment is dependent upon many factors. From the perspective of the individual who has the breast disease personal issues may determine which treatment approach is undertaken. Specifically, how important is it to save the breast; is the tumour of a size and position that lends itself to breast conserving surgery; is it possible to access radiotherapy if a local tissue excision is performed; is a second opinion available; and, is breast reconstruction available if desired? Personal beliefs and access to treatment options may strongly influence the choice of treatment regime that individuals accepts. (Morra 1994).

Local Treatments for Breast Cancer

Local treatment options for breast cancer include primarily surgery and radiotherapy to include brachytherapy, the placement of radiation directly into the lesion. Surgery may be of a breast conserving or a breast ablation nature. Clinical trials in Europe, the United States and Canada have proven that radical surgery offers the women no survival benefit over the simple lumpectomy. It is interesting to note that women who had lumpectomies without post-operative radiation therapy had an increase in the rate of local recurrence that had to be treated again, however, these recurrences did not impact upon their long-term survival (Batt 1994). Clinical and pathological factors that influence the selection of breast conserving or breast ablation surgery include: incomplete initial excision, young age of the woman, the presence of an extensive in-situ component, lymphatic or vascular invasion, and the histological grade of the tumour (Sainsbury 1995).

The decision to proceed with either breast conserving or breast ablation surgery is, to a certain extent, dependant upon the individual circumstances of the woman and her family. Women choosing breast conserving surgery are almost always referred to a regional cancer centre for radiation treatment. This treatment modality can only be delivered in a regional cancer centre, thus, the woman must travel there every day for the duration of the treatments, or, she may elect to live at a cancer treatment lodge for the weekdays during her treatment. For many women being away from their family, support system, and place of work renders this option untenable, thus, the option of mastectomy is the only reasonable, prudent course of action. The Institute for Clinical and Evaluative Sciences (ICES) published a report that examined the mastectomy rates for hospitals and surgeons in Ontario. This report caused an uproar as it was viewed as punitive to both the hospitals and surgeons who recommended breast ablation surgery. In reality, many women chose mastectomy as the most reasonable course of action after considering their individual circumstances (ICES 1996).

Breast Conserving Surgery

Breast conservation surgery may consist of a local excision of the tumour leaving a one centimetre margin of normal tissue, commonly known as a lumpectomy or segmental resection of the breast, or, a more extensive excision of breast tissue may occur and is most commonly known as a quadrantectomy. The amount of tissue excised is indirectly proportional

to the cosmetic effect of the surgery. Thus, the more breast tissue that is excised, the poorer the cosmetic result, therefore, it is most common to have lesions of less than four centimetres excised as breast conserving surgery (Taylor et al 1995).

Lesions of the breast most suited to breast conserving surgery include those with a single clinical and mammographic lesion, tumour size of less than four centimetres, and a local presence only with clear axillary nodes and no evidence of metastases. Women with large breasts and who show evidence of a lesion greater than four centimetres in size may, individually, qualify for breast conserving surgery (Gage et al 1995). The overall survival rate for women who have had breast conserving surgery is no different than in women who had breast ablation procedures. Women accessing breast conserving surgery should have routine physician follow-up visits bi-annually (Salvadori et al 1995).

Breast Ablation Surgery

Breast ablation surgery, more commonly recognized as mastectomy, occurs in about one third of all breast cancer surgery and involves the removal of the nipple, the axillary tail of the breast, all remaining breast tissue while leaving the chest wall muscles, the pectoralis major, rectus abdominus and serratus anterior intact. Complications associated with mastectomy include: the formation of a seroma, a collection of fluid under the skin flaps; infection, often due to the large surface area exposed; and, skin flap necrosis if the blood supply is compromised. While serosa formation occurs in one third to one half of all women who have had mastectomy, tissue necrosis and infection are very rare (Morra 1994).

Axillary Lymph Node Dissection

Current literature indicates that the necessity of axillary node dissection as a diagnostic and treatment modality for breast cancer is debatable. As such, a number of studies have the histologic characteristics of the sentinel lymph node predicting the histologic characteristics of the remaining lymph nodes in the axilla. The American College of Surgeons has called for an evaluation of the sentinel node biopsy replacing the axillary dissection in patients with carcinoma of the breast (Wells 1998).

Axillary lymph nodes are the most common sites of metastasis in breast carcinoma. Metastatic involvement of the axilla is known to progress sequentially beginning with the first lymph node, with skip metas-

tasis found in only two percent of cases. Sentinel node biopsy and lymphatic mapping is becoming a surgical option in the treatment of breast cancer for many women (Dent 1998). The day prior to surgery, and in conjunction with nuclear medicine departments, women are injected with a radioactive colloid and the lymph drainage of the breast lump is identified. They are re-injected on the day of surgery and the surgeon injects Lymphazurin 1% dye prior to initiation of the operative procedure. A gamma probe is used in the operating room to identify the most suspect areas and surgical dissection centres in this area. Research is indicating that women identified with a negative sentinel lymph node may be spared axillary dissection and the related morbidity associated with this procedure (Welykholowa 1998).

Lymphedema

Lymphedema, swelling of the arm, is a physical problem that may occur after the treatment for breast cancer. Early literature derived from assessment of the Halstead radical mastectomy indicated that up to 62.5% of all women undergoing this procedure reported incidences of lymphedema. More recent studies from less invasive surgery suggests that the incidence of this complication may be as low as two percent, however, it is important to note that any procedure involving axillary dissection, including lumpectomy or partial mastectomy, carries the risk of lymphedema as it disrupts normal lymphatic drainage pathways. The flow of lymph is disrupted until new pathways can be regenerated. Radiation augments the difficulties experienced by the women with axillary surgery as radiation slows the regeneration of new lymphatic pathways. Treatment for lymphedema includes elevation of the arm, exercise, compression garments, manual lymphatic drainage, and compression pumps (Engelking 1995).

Radiation Therapy

Radiation therapy, a local treatment for breast cancer, has evolved with the advent of linear accelerator radiotherapy machines, thus, the incidence of immediate skin reactions and subsequent skin telangectasia, redness or dilatation of the blood vessels, has been reduced. Additionally, the incidence of cardiac damage and radiation pneumonitis, inflammation of the lung, has been reduced to less than two percent. Axillary damage, injury to the area under the operative arm, was much more prevalent before the advent of more recent radiotherapy treatment

modalities and there is much less skin damage resulting in surgical repair than in years past (Sainsbury 1995).

Brachytherapy

Initial brachytherapy, used in the treatment of larger tumours of the breast treated with breast conserving surgery, or utilized if the surgical margins of excision are unknown, is gaining popularity as a viable treatment modality. Perioperative placement of implants conducted at the time of the lumpectomy have saved the women the inconvenience of undergoing another anaesthetic (Formenti 1995). The application of iridium 192 directly through hollow tubes or needles, at or near the tumour bed, plus the addition of external beam radiation to the axilla have indicated very positive results (ORCC 1997).

Systemic Breast Cancer Treatment

Chemotherapy, the treatment of cancer with medications, is a systemic breast cancer treatment modality that is now given to many women after surgery in an effort to minimize the growth of microscopic deposits of tumour cells that may progress into a recurrent tumour (Dollinger et al 1994). Women who are at risk for metastases are commonly given CMF (cyclophosphamide, methotrexate, and, fluorouracil) or, CAF (cyclophosphamide, adriamycin, and, fluorouracil). Side effects of chemotherapy may include, but are not limited to: fatigue, weight gain, nausea and vomiting, menopause induction, alopecia (hair thinning or loss), oral mucositis, increased risk of infection, diarrhea, and certain drug specific side effects such as bruising and blood clotting disorders. From a perioperative perspective it is imperative that preoperative blood work values be assessed for electrolyte, complete blood count, and clotting values before any surgery is performed. The immunocompromised individuals undergoing the surgery may require reverse isolation procedures so that they have minimal exposure to potential pathogens (Burlington 1998).

Although hair loss is the most common concern of patients prior to the initiation of chemotherapy, over 80% report fatigue and lethargy as the most troublesome side effect once chemotherapy has been administered. Alopecia may be reduced with scalp cooling techniques and although disconcerting for the individual, it is a transient side effect associated with specific chemotherapeutic agents. Nausea and vomiting are a common and unpleasant chemotherapy side effect but the advent of the new anti-nausea medica-

tions have made miraculous reductions in these side effects possible. A perioperative application of these new medications has, despite the price of over thirty dollars an injection, made it possible to eliminate the nausea and/or vomiting of post-operative patients thereby improving their wellbeing and quite possibly reducing their overall hospital lengths of stay (Cunningham 1997).

While it is possible to offer chemotherapy treatment prior to surgical excision when direct observation of the efficacy of the treatment is observable, it is extremely difficult to differentiate between invasive or in situ carcinomas due to the lack of a confirmed tissue diagnosis. Therefore, the majority of the chemotherapy, used as adjuvant therapy, is administered after the surgery has been performed. The goal of chemotherapy administration is to cure, control or palliate breast cancer patients. Some general principles apply to the administration of chemotherapy, specifically: a combination of drugs is more effective than a single drug; a single course of treatment is less effective than a prolonged course of treatment; and, the benefits of chemotherapy are greatest in women under 50 years, while a smaller but still significant benefit is seen in older women (Major et al 1998).

Metastatic Breast Cancer

Over half of the women with operable breast cancer who receive local surgery with or without radiotherapy will die from metastatic disease, indicating that for many women the cancer has already spread by the time of presentation. Metastatic risk factors include: axillary lymph node involvement, an adverse histological grade, and a large tumour size. The only way to improve the chance of survival for many women is to give effective systemic treatment (Hoskins 1997). Metastatic breast cancers have highly variable courses of action. Individuals with hormone sensitive cancers may live for several years without any intervention other than hormonal manipulations. Conversely, individuals with breast cancer that is not hormone sensitive may have a much shorter disease free interval and a shorter survival. The average period of survival after the diagnosis of metastatic breast disease is 18 to 24 months (Sainsbury 1995).

Metastatic breast disease may be treated alone or in a combination of treatment modalities such as hormonal manipulation, chemotherapy or surgery. Hormonal manipulation is effective in over 30% of patients however second line hormonal manipulation produces significantly less results. Chemotherapy for metastatic breast cancers must be administered while rec-

ognizing that the side effects may limit the amounts prescribed. The overall response rate to chemotherapy for metastatic breast cancer is usually 40 to 60%, however, with each subsequent course of treatment the success ratio falls by 50%. It is also interesting to note that when one chemotherapy regimen has been administered it cannot be repeated, thus, new medication must be administered (Sainsbury 1995).

Problems associated with metastatic breast disease include bone disease, specifically, bone pain. Pathological fractures due to bony metastasis will require internal fixation followed by radiation to improve the quality of life of these individuals (McLean 1996).

Bone Marrow Transplantation

Another treatment modality for breast cancer, specifically high-risk metastatic node-positive cancer, is autologous stem cell (bone marrow) transplantation combined with high-dose chemotherapy. Indeed, the most frequent indication for autologous stem cell transplantation is breast cancer which initially presents in patients with high numbers of positive lymph nodes or locally advanced breast cancer. Over the last 10 years, treatment related mortality has decreased from 22% to 6% and the overall survival in women receiving high dose therapy supported by stem cell transplantation is 30% at three years.

Breast Reconstruction

The loss of a breast to cancer often has a devastating effect on many women and their families. The option of breast reconstruction, while never restoring the breast to its original state, is often a viable alternative after mastectomy. Breast reconstruction may be performed immediately following mastectomy or delayed, however, any reconstruction may be contraindicated if there is metastasis to the lung, liver or bone. The administration of chemotherapy or application of radiation is not a contraindication to reconstruction, however, administration of these treatment modalities may be delayed so that the surgical sites can heal under optimal conditions (Meeker & Rothrock 1995).

Breast reconstruction may be achieved in three ways: available tissue and an implant, tissue expanders, and flaps. The use of available tissue is the easiest, but many women post mastectomy lack the necessary tissue, thus necessitating more invasive surgery.

Tissue Expanders

For breast reconstruction using tissue expanders a basic plastic instrument set is used and the round breast-shape expander is supplied in a sterile package

in numerous sizes. Care of this device is the same as for any other implantable device. The client is positioned supine with the arms extended on arm boards and the prepping and draping is carried out in a routine manner such that both breasts are exposed.

A submuscular pocket is created for the expander and an additional tunnel and pocket is created at an adjacent site from the main sac for the placement of the injection dome and connecting tube.

The tissue expander is leak tested prior to insertion; then inserted; the reservoir positioned subcutaneously and connected; the wound closed; and, the expander filled with sterile saline solution until blanching of the skin is achieved. Record the amount of saline inserted on the operative record as well as the details regarding the expander. Additional inflation of the tissue expander usually begins two to three weeks post placement and thereafter occurs approximately every seven days. The time from initial insertion to complete fill depends upon the desired maximum stretch. After the desired expansion has been achieved the temporary expander is exchanged for a permanent prosthesis.

Latissimus Dorsi Myocutaneous Flap

Breast reconstruction using a latissimus dorsi myocutaneous flap is a single stage reconstruction of the breast following a mastectomy. Usually significant tissue deficiency has occurred following a radical or modified radical mastectomy to necessitate this procedure. The latissimus dorsi muscle is a wide muscle extending over the mid thoracic portion of the back and inserting into the humerus. The blood supply comes from the thoracodorsal artery and perforators from the upper lumbar arteries and the intercostal vessels. The rich blood supply allows the surgeon flexibility in orienting and positioning the flap to the pattern of the deficit on the anterior chest wall. This type of flap may be used with an internal breast prosthesis, with or without adjustment to the contralateral breast.

The surgeon will draw the island of the flap on the back of the patient prior to surgical dissection. The patient is positioned in the lateral position with the arm on the operative side extended and elevated above the patient. The patient is stabilized, prepped and draped, exposing the affected breast and muscle. A basic plastic set is used, plus long Metzenbaum scissors, long DeBakey forceps, Deaver retractors, Freeman areolar markers, lighted breast retractors or a headlight, and possibly a second electrosurgical unit.

Often two surgical teams operate simultaneously, one freeing the muscle flap and the other preparing the

recipient site. Initially the island of skin is incised transversely across the back with care being made such that the scar will be covered by a bra or bathing suit. The muscle is then freed from the overlying skin by undermining so that all of part of the muscle may be mobilized. The skin island and the muscle are then tunneled through the axilla to the chest wall. The original insertion site of the muscle on the humerus and accompanying blood vessels are left undisturbed. This latissimus dorsi muscle fills the space left by the missing pectoralis muscle. The island of skin is oriented to the recipient site and both are sutured into place. If desired, a saline-filled implant is placed under the muscle before suturing to reconstruct the breast mound. The wound is drained by closed wound suction catheters and the nipple-areola complex may also be reconstructed at this time by sharing the nipple on the unaffected side or by using groin or auricular tissue. This may be done at the time of reconstruction or at a later date.

Trans-Rectus Abdominus Flap

The trans-rectus abdominus (TRAM) flap is a single-stage reconstruction of a post-mastectomy breast with the transverse rectus abdominis muscle. This flap is an alternative to the latissimus dorsi flap and takes the excess tissue from the lower abdomen to reconstruct the breast while rarely using an implant as further augmentation.

The surgeon will mark the client pre-operatively with the patient in an upright position. A basic plastic instrument set is used and the patient is placed in the supine position with the arms extended on armboards. The operating room table is often flexed and additional padding of the lower extremities may be required. The chest and abdomen are prepped and draped simultaneously. The skin from the mastectomy scar is revised. The transverse rectus abdominus muscle is dissected and tunneled subcutaneously to the midline and the flap is brought to the chest wall and fixed medially with the thinnest portion of the flap being positioned superior and medial and the thickest portion of the flap is inferior and lateral. Due to the amount of tissue available implants are often unnecessary. There are variations on the TRAM flap to include the pedicle approach, free approach or supercharged flap (Meeker & Rothrock 1995).

The advantages to reconstruction include: restoration of feminine body image; no prosthesis or special bras need to be purchased or worn; any clothing can be worn; can go braless; no overt daily reminder of breast surgery; and, it is psychologically beneficial. Disad-

vantages to reconstruction include: a longer recovery time from surgery; greater post-operative discomfort; some insurance programs will not cover all of the costs; and, increased incidence of infection or surgical complications due to the complexity of the surgery (DiMartino 1996).

There are benefits to immediate reconstruction which include: only one surgical experience and anaesthetic; lower cost than two surgeries; reduced recovery time compared to two surgeries; body image doesn't suffer as much as with mastectomy alone; and, there may be better psychological adaptation. Disadvantages to immediate reconstruction include: more physical discomfort and a longer recovery time when emotions are at their peak; and, increased potential for infection or surgical complications which could delay cancer treatment (Kneece 1995).

Advantages of delayed breast reconstruction include: time to study reconstruction methods and see other opinions; time to carefully select a reconstructive surgeon; more time to psychologically prepare for the surgery; no delay in cancer treatments. Women who delay reconstructive breast surgery experience some of the inconveniences of having to wear a prosthesis, thus they are often more pleased with the reconstructive results.

Mammography

Mammography is a simple, safe radiologic x-ray examination of the breast recommended every two years by the Canadian Cancer Society (CCS) for all women over age of 50. Mammography may detect breast cancers before they can be palpated by a woman or physician, thus increasing the chances of a cure.

Research shows that the ideal time to have a mammogram is during the first two weeks of the menstrual cycle. Having a mammogram during the last two weeks of the cycle doubles the chances of missing a cancerous tumour as studies have shown that menstruating women who have used hormones may have an increased risk of false-negative results when mammograms are performed during days 15 to 28 of the menstrual cycle (Baines et al 1997). Obviously, the efficacy of screening mammograms would increase if there was a reduction in the false negative reports. The CCS recommends that women have their breasts examined by a certified breast examiner yearly and perform monthly breast self examination. For women between the ages of 40 and 49 years the CCS recommends that mammograms be discussed with the family physician and performed accordingly.

While mammography is recommended for all

women over the age of 50 it is strongly recommended that both screening and diagnostic mammography be performed at dedicated facilities offering two view mammography.

Breast Self-Examination

Mammography alone is not sufficient surveillance to be used in the detection of breast abnormalities. Regular breast examinations performed in a consistent, thorough manner by certified breast examiners and by the woman herself are essential for the early detection of breast abnormalities. Many lumps are discovered by the woman themselves - 30% in one study, 80% in another, thus routine breast self examination may locate fast-growing, interval cancers that develop between scheduled screenings. As many women forego regular check-ups, breast self examination (BSE) is a valuable detection aid. This examination must be learned from a trained health professional as improper technique facilitates a sense of false security. Premenopausal women should perform BSE preferably a few days after a period ends and post menopausal women should perform BSE on the first day of each month. Breast self examination facilitates the woman getting to be more familiar with her breasts, thereby increasing the opportunity to recognize any abnormality. It is important to recognize that eight out of ten breast abnormalities are benign and that early detection potentially saves lives (Engel 1991).

The CCS recommends using either the grid or rotary method for breast self examination. Utilizing the grid method small circles are made back and forth across the breast, covering the entire breast area to include the tail of the breast and axilla. The rotary method is accomplished by making small circles starting at the outside edge of the breast and making small circles all the way around the breast. Keep moving in toward the nipple and be sure to check the entire breast and axilla (CCS 1997).

Unconventional Therapies

Today in the market and in the literature, there is an abundance of information and misinformation available to the consumer regarding unconventional therapies for breast cancer.

Some of the more common unconventional therapies currently alleged to reduce the incidence of, or to potentially cure breast cancer includes: • 714-X, an immune system booster ; • green tea, an anticarcinogenic comprised of the potent antioxidant epigallocatechin gallate (Kaegi et al 1998); • essiac, a

combination of burdock root, Indian rhubarb, sheep sorrel and slippery elm bark herbs; • therapeutic touch; • soy milk - presumed to decrease the side effects of menopause and to possibly avoid hormone replacement therapy; and, • vitamins and q10 consumption may alter the body's breakdown of estrogen, thereby possibly reducing the chances of getting breast cancer.

Breast massage as a form of complimentary therapy is relatively new to Canada although widely used in Europe for years. Breast surgery often results in lymphatic congestion, hard, painful or fibrous breasts and scarring or numbness in the breast or surrounding tissues. Breast massage promotes lymphatic drainage, reduction in pain and swelling and helps lessen scars. Massage therapists in most provinces are regulated health professionals and breast massage is within their scope of practice.

Breast Cancer Risk Factors

Induced Abortion. Articles abound supporting both sides of the breast cancer risk and induced abortion issue, however, there is literature to support the statement that a 30% risk increase exists for the development of breast cancer in women who undergo induced abortion.

Constricting Garments. While not scientifically proven, researchers link the impaired lymphatic flow related to constricting garments directly to breast cancer incidence and found that women who wore their bras for 24 hours per day had a three out of four chance of developing breast cancer. Women who wore their bras 12 hours per day, but not to bed, had a one out of seven risk and women who wore their bras less than 12 hours per day developed a one out of 152 risk. Exercise and massage of the breasts increased lymphatic flow, and were thereby linked to reduced incidence of breast cancers (Reed 1996).

Plastics and Estrogen. Plastic storage and drinking containers are being studied to see how they potentially mimic the effects of estrogen in the body. The chemical, pnylphenol, is strongly linked to this theory and is found in polyvinylchloride pipe that carries water. The chemical bisphenol-A, commonly used in the manufacture of drink bottles, including water, is also involved. Caution is urged when storing and heating food in plastic containers.

Environment. Environmental concerns pertaining to the development of breast cancer are very troubling since a host of chemicals used in plastics, detergents and pesticides act as pseudo-estrogens, thereby promoting breast cancer by accelerating the disease and enhancing other factors that cause it.

Occupational Hazards. There is data to support the theory that breast cancer may be directly related to occupation. Teachers, religious workers, administrators and nurses all have an increased risk of developing breast cancer while female construction workers have a remarkably decreased risk.

Nurses have an increased mortality from all cancers combined, especially cancers of the breast and ovary, representing an unexpected increase of between 15 and 20%, in addition to leukemia and pancreatic cancers (King et al 1994). Nurses in Iceland have a higher breast cancer incidence rate than the general Icelandic population and a Finnish study indicated the incidence of breast cancer in registered nurses was twice that of the general population, thus, the possibility exists that the nursing occupation may be an indirect risk factor for breast cancer (Gunnorsdottir & Rafnsson 1995).

Alcohol Consumption. Death from breast cancer was elevated among women consuming more than one drink of alcohol a day (Colditz, Manson & Hankinson 1997). Consumption of alcohol, even in small amounts, may lead to DNA damage and may influence the development of breast cancer by altering the hormonal milieu as alcohol causes a 28% elevation in estradiol levels and a 21% increase in estrone levels during the ovulatory cycle of the menstrual cycle (Giovannucci, et al 1993).

Perioperative Issues

While nobody would expect a nurse with perioperative experience to be conversant with all aspects of breast cancer detection, treatment, support and palliation, it is imperative that they have a broad overview of the various aspects of the disease and the follow-up programs available in their community. The shorter hospital lengths of stay and the resulting increase in Surgical Day Care breast procedures means that the women and their families are interfacing with the formal health care system for significantly less time than ever before. The opportunity to answer concerns related to the perioperative experience, or to address the personal aspect of breast cancer is minimal.

To improve the cancer care delivery system for the woman and her family it will be necessary for the perioperative team to become familiar with:

- diagnostic and treatment interventions;
- hospital programs offering support to the individual;
- community groups and agencies offering assistance to individuals and their families who must deal with breast cancer; and,

• ideally, have a designated person act in the capacity of system navigator.

Pre-operative Preparation

Perioperative nurses, through their involvement with pre-admission clinics are well positioned to provide education and support to the woman who must deal with a recent diagnosis of breast cancer. Just as we would address any operative concerns pertaining to the direct surgical experience, a unique opportunity exists to help this individual with any social or psychological concerns that they might have at the time of the pre-operative visit. The perioperative nurse may refer the woman to any hospital based support group or social workers, or, facilitate a referral to community groups and agencies that can provide the support that the woman and her family needs. Individuals or agencies that may be available to counsel the woman may include: breast cancer support groups, hospital and community social workers, breast cancer survivors, psychologists, oncology nurses or physicians. Often more than one avenue of support is necessary, therefore, it is important that the perioperative nurse have access to the information so that the referral may be both appropriate and made in a timely fashion.

In many instances the perioperative nurse is the first health care professional that the newly-diagnosed breast cancer patient meets after the surgeon has communicated the diagnosis. As such, information access is very important to the woman and access to a current library is essential for the most recent developments in breast cancer treatment. While it is virtually impossible for every community to have immediate access the most current breast cancer information available, it is possible to link with libraries in cancer treatment centres or to access information electronically on the World Wide Web. It is suggested that caution be exercised when accessing information on the Web as not all sites are recommended sources of evidence-based cancer treatment information. Web sites such as the Canadian Cancer Society, National Cancer Institute of Canada, and provincial cancer treatment centre locations are highly recommended.

Discharge Planning

Ideally, prior to admission to the hospital as either an inpatient or as a day surgery candidate, the woman and her family should receive instructions pertaining to discharge. Many hospitals incorporate discharge planning into the admission process to ensure that the individual and the family make appropriate

arrangements prior to admission so that continuity of care is maintained. Utilization of the Home Care programs in the community are of a great benefit to the woman undergoing breast cancer surgery as they will provide assessment services, psychological counseling and symptom control in the home after hospital discharge. This continuity has been of proven benefit to both the care team and the individual after surgery. Additionally, many Public Health programs will provide in home visits to deal with psychological issues that the woman may wish to address either prior to, or immediately after, her surgery.

Financial Issues

In addition to the physical and emotional assaults that the woman must face as a result of her breast cancer diagnosis, many women must also address financial issues. In today's society many women are responsible for contributing to the financial welfare of the family unit and, as such, a diagnosis of breast cancer with the resultant loss of work due to surgery, radiation and/or chemotherapy, may strain the family's ability to cope financially. Many women work part-time and do not have disability insurance as an allotment of a benefit package so a diagnosis of breast cancer further compounds their distress as they will now face additional hardship. For individuals and families who are facing financial hardship there are community social services and other agencies available that will provide support during their time of treatment. For example, the Canadian Cancer Society will provide babysitting services and transportation to individuals who must travel for cancer treatments and appointments, however, many women and their families do not even know that this service is available, let alone the mechanism available to access it. Thus, the role of the perioperative nurse or the nurse navigator, acting in the capacity of facilitator, becomes a crucial part of the cancer care delivery system.

Nurse Navigator

Hospitals providing breast cancer surgery should have a system in place whereby both the users and providers of breast cancer care can access the formal cancer care system for information. Information that may be necessary to access so that care may be facilitated could be either general, such as current treatment options, or specific, such as designated oncology appointment times. In this capacity the nurse navigator position would be most advantageous. The nurse navigator should be a professional with

extensive experience dealing with individuals who must cope with cancer in general, and breast cancer specifically. They should have a general knowledge of the perioperative and oncology treatment delivery systems as well as a thorough knowledge of hospital and community resources that may be accessed to meet the needs of the individual and family. Additionally, and perhaps most importantly, the nurse navigator should have the time, responsibility and the authority to guide the woman and her family through the often complex maze of choices that are available. It is important to remember that the concerns of the individual, not the concerns of the nurse or other members of the health care team, are paramount. All too often health care providers will dictate to the individual instead of listening and respecting the individual's concerns and issues.

Surgery and the Breast Cancer Patient

While it is not a recommended practice, many individuals diagnosed with breast cancer and undergoing radiation or chemotherapy must undergo concurrent additional surgery. As such, there are many intraoperative considerations that the perioperative nurse must consider and communicate to the team so that the desired surgical outcome may be achieved. It is essential to remember that when chemotherapy is being administered to an individual that the blood counts and possible risks of systemic complications are lowest at the immediate time of chemotherapy administration. While nausea and vomiting are most prevalent at the time of chemotherapy administration potentially life threatening blood disorders usually manifest themselves anywhere from ten to twenty-one days post chemotherapy administration. Specifically, with regards to chemotherapy, anyone undergoing an operative procedure should have in addition to a routine pre-operative workup: a complete blood count including absolute neutrophil count to assess susceptibility to infection and a platelet count to establish blood clotting factors. Thus, accurate blood results are essential to assess the physiological status of the individual prior to any surgical intervention.

Just as chemotherapy may potentially complicate the administration of anesthetics, the application of radiation therapy may cause further revision to the perioperative care plan. Radiation therapy causes local skin irritation that may sensitize the skin to the point of severe fragility. Excessive care must be taken during surgical positioning to ensure that shear forces on the irritated skin are not applied as the skin may slough as a result of the pressure. Skin prep should be

minimal, scrubbing of irradiated areas should be avoided, and, skin preps containing alcohol should not be used due to the caustic effects on the skin. It is suggested that the prep solution be gently removed as soon after the procedure as possible to reduce any potentially irritant effects to the irradiated area. Tape should never be placed on irradiated skin due to the fragility of the area and dressings should be modified to minimize trauma to the compromised skin.

Individuals undergoing any breast surgery, be it either lumpectomy with axillary node dissection or mastectomy, should at all times be cognizant of the fact that the lymph pathways are affected, thus, the ability of the limb to combat infection is compromised. Therefore, from a perioperative perspective the team members should be aware that after any breast surgery the arm will have a tendency to swell. Usually the swelling is mild and does not pose a problem, however, any infection introduced to the arm or hand may lead to dramatic swelling. In an effort to reduce the incidence of infection into the limb it is suggested that the arm be well padded and elevated at all time, whenever lying down or sitting for any length of time. Additional precautions should be taken by the team members to avoid injury or to break the skin in the hand or arm as this presents an ideal situation for inflammation or infection to occur. Blood pressures and any other monitoring should not take place on the affected arm as this may compromise the integrity of the limb. The active participation of all members of the care team towards maintaining the integrity of the skin and circulation in the arm affected as a result of surgery or radiotherapy will ensure that the care delivered to the woman is of the highest quality.

Post-Operative Follow-up

Many surgical programs provide outcome measurement for the delivery of perioperative care delivery utilizing a post discharge telephone follow-up call as a tool. At this time the nurse contacting the patient is able to assess both the recovery status of the individual as well as the efficacy of the care that was delivered in the hospital to include the pre-operative assessment clinic. This telephone call may be made by any nurse in the pre-operative assessment clinic, the operating room or the post-operative anaesthetic care unit depending upon the policy of the individual institution. This follow-up telephone call allows the nurse the opportunity to assess the status of the client and to answer any concerns that may be present as a result of the operative experience. The nurse should be prepared to comment appropriately regarding the

perioperative experience in addition to: wound care, analgesia, exercise, diet, work issues and, perhaps most specifically, access to cancer care services. At this time it is imperative that the perioperative nurse be familiar with community resources pertaining to breast cancer services and this should include support group information. This nurse need not be an expert in cancer issues, however, a general knowledge of available cancer services and resource individuals will be most appreciated by the cancer patient and their family members.

Conclusion

The treatment of breast cancer is a team effort requiring the dedication and expertise of all of the members of the care team to ensure a favorable outcome. While the cancer care team cannot always guarantee a successful outcome of the treatment, they can ensure that every attempt has been made to offer the most comprehensive, coordinated and timely access to supportive care and cancer treatment. As a member of the team, perioperative nurses play a crucial role in the delivery of treatment modalities and the dissemination of cancer information to the women and their families. By utilizing their wealth of knowledge, skills and expertise, they are well positioned within the cancer care spectrum to positively influence the outcome of individuals and their families who must navigate the system. A concise knowledge of breast cancer types, history, incidence, predisposing factors, therapies and mammography will assist the perioperative nurse throughout her personal and professional life. Additionally, with a thorough understanding of breast cancer as a disease process, and the diverse treatment options that are currently available, the perioperative nurse has the opportunity to educate as well as participate in the care and treatment of women who must deal with all aspects of the breast cancer. Individually, and as a specialty, we should reconsider our position within the cancer care system because once all aspects of this disease are assessed, breast cancer really is so very much more than just a perioperative experience. ■

References

The author provided 66 references with the manuscript, along with several graphs and charts. Due to the limitations of this journal's size references will be provided only on request. Please submit a postage-paid, fully addressed envelope to the publisher and references will be forwarded immediately.

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Coral from Australian reef used to replace bone

A revolutionary procedure by Israeli doctors using coral from a reef in Australia could bring permanent relief to patients needing hip replacements and other major bone surgery.

Researchers at Soroka Medical Centre at Ben-Gurion University in Beersheba, Israel, hope to use the procedure on patients within a year.

Dr. Dan Atar, chairman of the orthopedic department at Soroka, said in an interview with the *Globe & Mail*, Sept., 1999, that he had successfully removed a large section of the femur from a dog and replaced it with coral.

"The dog was walking the next day, and the bone grew back without any problems of rejection or infection," he said.

The results of similar experiments on six research dogs will be published soon. "We hope to begin using the coral on human patients within a year, and we are confident it will prove successful," he said.

"The new method can be used to replace any missing or damaged bone, such as a hip replacement or for someone who has suffered gunshot wounds. The possibilities are endless."

Many hip-replacement operations have to be repeated after 10 or 15 years because the interface between the metal implant and the patient's bone wears out, and the implant works loose. But the coral merges with the bone and lasts forever.

Biodegradable implant

"The coral acts as a frame and the new bone grows around it," said Dr. Atar. "After a while, the coral merges with the bone and disappears. It is as strong as steel; it can't be broken. It is what we have been searching for - a biodegradable implant. The coral is not rejected because we remove all organic material from it using a special process, leaving only the dead, calcified tissue, which the patient's body will accept."

Scientists have long been aware of the similarity between coral, which is composed of the external skeletons of tiny sea animals, and human bone. Surgeons have used crushed coral powder for many years as a paste mixed with bone marrow to help heal fractures and other minor bone damage. Scientists have tried for years to develop a way of using coral to replace bones, but Dr. Atar and his

team are the first to succeed in growing bone tissue in this manner.

The coral was discovered off the coast of Australia by scientists from Ben-Gurion University. Dr. Atar said it was available in large quantities very cheaply.

"I cannot tell you which species because our discovery is in the process of being patented; but we estimate that the supply is almost endless without damage to the environment."

Because coral-based paste is already widely used, the method developed by the Israeli doctors is expected to be approved for human use by health authorities.

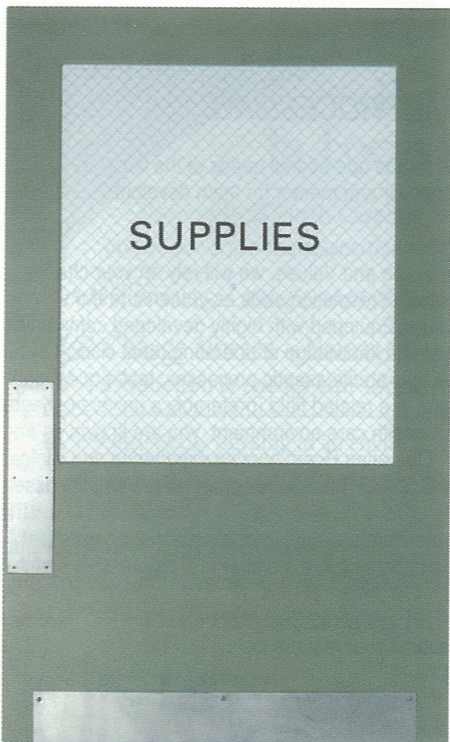
Mount Sinai to Invest up to \$40 Million to be World Leader in Obstetric and Newborn Care

Toronto: Mount Sinai Hospital recently announced a major new investment of \$40 million in the care of women and infants.

"Our objective is to become a household name internationally, building on the unique programs and services that we currently provide to women and infants in Toronto and Ontario," said Dr. Knox Ritchie, Obstetrician and Gynecologist-in-Chief at Mount Sinai Hospital. "Mount Sinai is a significant resource to Canadians right now... with this funding, we are poised to become the leading center internationally."

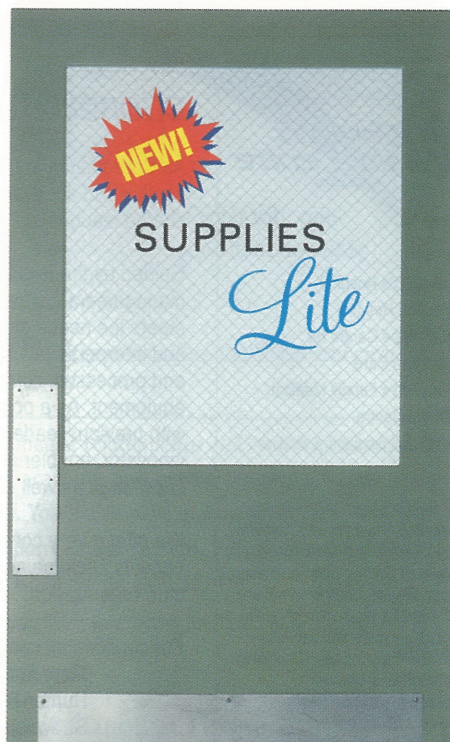
L.S. Bloomberg, First Marathon and several of its executives donated \$5 million to the hospital's "Best Medicine Fund Raising Campaign" boosting it over its initial milestone of \$100 million - an amount unprecedented in Canadian healthcare. The hospital directed the gift toward the expansion of obstetric and newborn care.

"This gift is a core part of an entire program expansion, which is Hospital Services Restructuring Commission-directed," said hospital President and CEO, Theodore Freedman. "Under the Commission directives, the program in obstetrics and neonatology at the Toronto General Hospital will be transferred to Mount Sinai Hospital."



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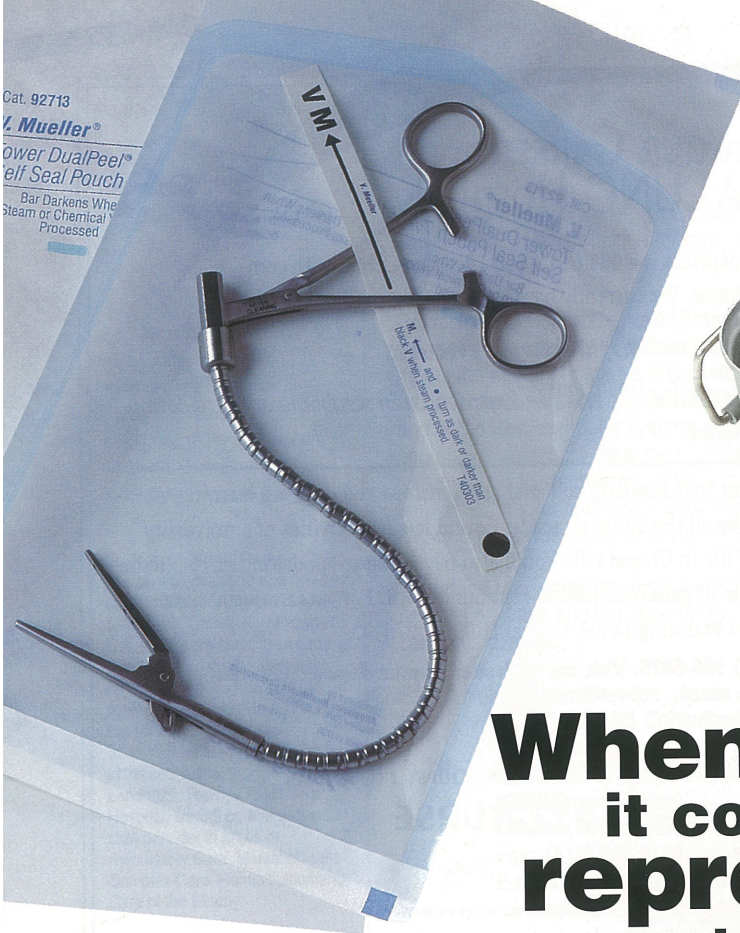
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