NEWSLETTER

Hong Kong Association of Critical Care Nurses Limited (HKACCN Ltd)

Vol. 8, No. 2, April 2007

香港危重病學護士協會有限公司
Hong Kong Association of Critical Care Nurses Ltd.

PRESIDENT'S INAUGURAL SPEECH

WONG Esther
President
HKACCN Ltd

As we gathered here to-day to celebrate the inauguration of Hong Kong Association of Critical Care Nurses Ltd, we seek your blessings on our efforts and intentions.

For almost nine years (1998 till now), HKACCN has been a very active professional body in Hong Kong, Mainland China and overseas.

In Hong Kong, we ran courses, seminars and conferences, and participated in National Day and Nurses' Day celebration activities. In Mainland China, we joined hands with many provincial governments and nursing organizations in offering basic and formal, as well as enhanced critical care, nursing programs. The most note-worthy ones were the National-wide Intensive Care Nursing Program in Beijing in 2002, 2004 and 2005, the publication of the Textbook for Critical Care Nursing Program in 2005, and the first Advanced Cardiac Life Support (ACLS) Program of China in Shanghai in 2006. Internationally, as a council member of the World Federation of Critical Care Nurses (WFCCN), the president, the chair and the vice-chairs of professional Development Committee, on behalf of HKACCN and all critical care nurses in Hong Kong, participated in the Annual WFCCN Conference being key-note speakers, presenters, moderators and judges of poster presentations. HKACCN has been visible at various levels in the field of critical care nursing in Hong Kong and abroad.

HKACCN Ltd. has been incorporated in Hong Kong under the Companies Ordinance since 13 April 2007. The Limited Company will acquire and take over all the assets and liabilities of HKACCN. After the inauguration ceremony on 27 April 2007, the HKACCN will hold its Extraordinary General Meeting and then the association will be dissolved.

In the new era as HKACCN Ltd., we intend to collaborate closely with more professional organizations in the form of nurses' training, particularly in the development of the specialty. We will work hard on the transferable critical care clinical skills and the academic qualifications of critical care nurses. It is hoped that with the assistance of our advisors in the Universities and Hospital Authority, HKACCN Ltd. can participate in devising academic programs thus enabling critical care nurses to have a master program of their field, which is comparable with their counterparts overseas.

To enable critical care nurses to communicate competently with our colleagues in the Mainland, we have started to run a series of Putonghua classes. Critical care nurses are welcome to join the classes so that they can share experience with China nurses freely when condition warrants. Furthermore, we have planned to work jointly with American Heart Association's International Training Organization (China and Hong Kong) to create a platform for all nurses of Hong Kong and Mainland China to acquire the international qualification of Life Support. As such, patient safety which we perceive as paramount could be better assured.

In the international arena, we definitely will continue to be visible. We have participated in the recent study of world-wide review on nursing organizations and activities. And we'll continue to make effort to enable Hong Kong to be a part of the world in this connection. And HKACCN Ltd. will continue to work hard in representing critical care nurses and share our achievement with WFCCN members in other countries.

I must thank all council members, subcommittee members, co-opted members, BLS/ACLS instructors and editors for their hard work throughout the years. I must also take this opportunity to thank our advisors, honorary legal advisor and auditor for their practical advice and professional support. Moreover, I thank the senior management of HA and private hospitals for their support to critical care nursing. Last but not least, I thank members of the association. Each member is a part of HKACCN Ltd., I am sure together we can accomplish great things - things more important and more meaningful than I have outlined earlier. You will be the driving force that launches us in the right direction. Do give us comments and suggestions through our company e-mail hkaccn@yahoo.com.hk. Without your feedback and involvement, the HKACCN would not have achieved so much in the past and your continuous support to the HKACCN Ltd. would be very much valued and treasured.

INAUGURATION of the HKACCN Ltd DINNER

Date:
27 April 2007

Time:
6:00pm—10:00pm

Venue:
City Hall Maxim's Palace Restaurant
Lower Block, 2/F, City Hall, Central, Hong Kong

Guest Speaker:
Ms. Belle Rogado, President of the World Federation of Critical Care Nurses (WFCCN)

Congratulations to the incorporation!!

Message from the Chief Editor

CHIANG Vico
Chief Editor
HKACCN Newsletter

If you remember in the last issue of our Newsletter, I proposed the issue of translating best evidence into practice as one of our professional goals in the new year. In that regard while the translation of evidence into practice remain a challenges and mission for our profession, I urge you to reflect further on the nature of evidence-based practice (EBP). A clear understanding of EBP assures successful changes and improvement of practice, which complete the EBP.

Sackett et al (1997) defined EBP as "the conscientious, explicit and judicious use of current best evidence in making decisions about the health care of patient" (p.2) and "the integration of best research evidence with clinical expertise and patient values" (Sackett, 2000, p.1). Nevertheless it appears that we consider EBP with a lot more focusing on research utilization than the balance with clinical expertise and patient values (Barnsteiner, 2007; MaCabe, 2007).

MaCabe (2007), Rycroft-Malone (2007) and Thompson (2007) in the recent Sigma Theta Tau Pi Iota Chapter Conference (Evidence-based practice in nursing: Paradigms and dialogue) reminded us clearly to differentiate "research utilization" and EBP, and to consider the contexts of patient values and clinical practice when translating best evidence into practice. This notion really redirect us to the reality of EBP, i.e. to avoid the inappropriate and mere focus on research utilization in EBP in the expense of clinical expertise and patient values.

"Research utilization" differs from EBP but we tend to take this work as the same as EBP. In research utilization we only make available and implement systematic research efforts to generate evidence (Barnsteiner, 2007; MaCabe, 2007). For EBP (while taking research utilization in perspective and action), it is a balance in the application of best evidence made available from systematic research, as well as clinical expertise and patient's values (Sackett et al, 1996, 2000). Therefore EBP is not merely about research utilization.

By "clinical expertise" it is the clinical skills and past experience of the clinicians in action to applying the best evidence; and "patient values" the unique preferences, concerns and expectations each patients bring into the clinical encounters (Sackett et al, 2000). Isn't it unscientific to consider experiences and personal preferences in EBP because they are subjective in nature? However in the full definition of EBP (and in fact realistically) these elements are clearly included in order to achieve the best practice. Otherwise we are merely "research utilizing" than practically translating the best evidence into the contexts of clinical world, where clinical expertise and patient's preference interweave in reality. The success of EBP reply very much on our competency and ability to balance these essential elements in contexts.

While we celebrate the inauguration of incorporation as a company limited for our HKACCN this month, I urge you not to loose the full sight of EBP to mere research utilization.

Congratulations to the establishment of HKACCN! On behalf of the Association we wish you a great success in your areas of patient service and EBP in translation.

Reference

Barnsteiner, J. (2007, March). Translational research: Applying the evidence and measuring the outcomes. Seminar presented at the Department of Nursing Studies. The University of Hong Kong.

MaCabe, S. (2007, April). Our Conundrum: Practicing evidence-based nursing when there is no evidence. Keynote Address presented at the Sigma Theta Tau Pi Iota Chapter Conference "Evidence-based practice in nursing: Paradigms and dialogue". Hong Kong SAR, China.

Rycroft-Malone, J. (2007, April). Challenges and complexities: Moving evidence-based practice forward. Keynote Address presented at the Sigma Theta Tau Pi Iota Chapter Conference "Evidence-based practice in nursing: Paradigms and dialogue". Hong Kong SAR, China.

Thompson, d. (2007). Overview of the development of evidence-based nursing. Keynote Address presented at the Sigma Theta Tau Pi Iota Chapter Conference "Evidence-based practice in nursing: Paradigms and dialogue". Hong Kong SAR, China.

Sackett, D., Ronsenberg, W. M. C., Gray, J. A. M., Haynes, R. B., and Richardson, W. S. (1996). Evidence-based

practice: What is it and it isn't? *BMJ*, *312* (7023), 71-72.

Sackett, D., Richardson, W. S., Rosenberg, W., Haynes, R. B. (1997). *Evidence-based medicine: How to practice and teach EBM*. New York: Churchill Livingstone.

Sackett, D. L., Strauss, S. E., Richardson, W. S., Rosenberg, W., and Haynes, R. B. (2000). Evidence-based medicine: How to practice and teach EBM (2nd ed.). London: Churchill Livingstone.

NAVA – A new approach to mechanical ventilation based on neural respiratory output.

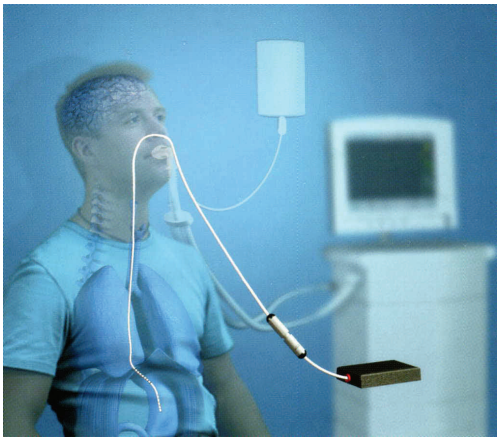
CHAN David
Chairperson, PDC
HKACCN Ltd

What is NAVA?

Recently a new ventilatory approach is introduced into the local Intensive Care practice, it is called the Neurally Adjusted Ventilatory Assist (NAVA). It is a new approach to mechanical ventilation based on neural respiratory output. In human, the act of breathing depends on a signal (or rhythmic discharge) from the respiratory center of the brain. This signal travels along the phrenic nerve, and excites the diaphragm muscle cells. It will then lead to contraction and descent of the diaphragm. As a result, the airway pressure drops, causing an inflow of air into the lungs.

Conventional mechanical ventilators sense a patient effort by either a drop in airway pressure or a change in flow. But this drop in airway pressure or change in flow is only the last and most slow reacting step in the chain of respiratory events, because there is a time delay. In this case, the ventilator does not meet the patient's need adequately.

With the use of NAVA, the electrical activity of the diaphragm (Edi) is captured, fed to the ventilator and used to assist the patient's breathing. As Edi is the earliest signal in the respiratory process, so it can sense the patient's triggering effort more timely and accurately. In this regard, the ventilator can assist the patient's spontaneous breath in a more effective manner, and help amplifying the patient's own recovery efforts.



Clinical Application

The equipment required for using the NAVA is to use a Servo-I ventilator with: a NAVA software, an Edi module and an Edi catheter. First, an Edi catheter is inserted into the patient's stomach (via nasogastric route), the catheter position should be confirmed by a Catheter Position Tool to ensure the optimal position of the Edi catheter in order to achieve the best Edi signal quality. Second, a NAVA preview tool is used to indicate the level of calculated ventilatory assistance the patient will receive upon changing to a NAVA mode. Third, a NAVA ventilation mode window is used to show the correlation between the Edi amplitude and pressure/flow curve. Subsequently, the patient can breathe freely with the support of NAVA in a pattern similar to an auto-regulated pressure support (PS) mode. The ventilator will adjust the Pressure Support level according to the Edi amplitude. As the patient's condition improves and the decrease in Edi amplitude, the pressure support level will be reduced gradually. This pressure drop is an indicator to consider weaning and extubation.

Clinical Benefits

The NAVA provides the following clinical benefits:

1. Powerful monitoring tool: The Edi signal is a new unique parameter in mechanical ventilation. It can be used as a diagnostic tool to monitor the electrical activity of the diaphragm (Edi). The Edi curve and its associated value can thus used as a powerful monitoring tool in all ventilation modes, providing information on Respiratory Drive, Volume requirements and the effect of the ventilatory settings, and to gain indications for sedation and weaning.
2. Sensitive triggering device that improves patient-ventilator synchrony: In NAVA, the ventilator is cycled-on as soon as neural inspiration starts, and is cycled-off as soon as the neural expiration begins. By utilizing the Edi signal, maintenance of synchrony between the patient and the ventilator is guaranteed.
3. Lung protection mode: With NAVA, the patient's own respiratory demands determine the level of pressure support assistance. NAVA gives the opportunity to avoid over-use or under-use of pressure support required for the patient.
4. Patient comfort: With NAVA, the respiratory muscles and the ventilator are driven by the same signal with no time delay. The delivered assistance is matched to neural demands. This synchrony between patient and ventilator helps minimize patient discomfort and agitation, promoting spontaneous breathing.
5. Function as a nasogastric catheter: The Edi catheter can also serve the function as a nasogastric feeding tube, with size ranging from 6 Fr to 16 Fr to cover all patients size from neonatal to adult.
6. Suitable for both adults & infants: Other than using the NAVA in adult patients, NAVA can also be used in infants. The Edi signal provides a tool that allows the clinicians to interpret the background of the

chaotic breathing pattern so often seen in the infants.

Conclusion
NAVA can be seen as a kind of new monitoring, triggering and breath-assisting device in mechanical ventilation. Since it is still a new ventilatory device being introduced to the ICU settings in Hong Kong, local clinicians will need to accumulate more experiences in using the NAVA before further comments and evaluation to such device can be provided.

Further Readings
Sinderby, C., Beck, J., Spahija, J., DeMarchie, M., Lacroix, J., Navalesi, P., and Slutsky, A. S. (2006). Inspiratory Muscle Unloading by Neurally Adjusted Ventilatory Assist during Maximal Inspiratory Efforts in healthy subjects. *Chest* (In press).

Web-sites
www.maquet.com
www.criticalcarenews.com

Sharing on the 35th EDTNA/ERCA Conference

LEE Maggie
Nurse Specialist (Renal)
TMH

The common mission of EDTNA (European Dialysis and Transplant Nurses Association) and ERCA (European Renal Care Association) is to promote quality renal care through education and maintenance of standards in Europe. These associations published a European Core Curriculum for the Post Basic Course in Renal Nursing and the European Standards for Nephrology Nursing Practice, and developed the Collaborative Research Programme in renal medicine and nursing. With the sponsorship approved by HKACCN, I attended the 35th EDTNA/ERCA Conference, which was held from 8th to 11th September 2006 in Madrid, Spain.

The theme of the conference aimed to address issues of prevention and early detection of chronic kidney disease (CKD), which has reached epidemic proportions worldwide. It also focused on the complications associated with CKD and renal replacement therapy, and co-morbid conditions such as diabetes and coronary heart disease. Content of the conference also incorporated education sessions targeting hypertension, anaemia management and transplantation. The delegates had opportunities to attend both lectures and advanced skill workshops (for example a session focusing on skills and techniques for nurses to educate renal patients to perform CAPD (continuous ambulatory peritoneal dialysis). On the other hand, many renal care companies exhibited cutting edge products in pharmacological therapy, treatment regime and dialysis technology.

I found the content of conference comprehensive. Not only specific seminars and talks in the areas of CKD prevention were highlighted, topics in basic care of renal patients were also included. The contents are suitable for renal nurse trainees. The topic of how exercises benefit renal patients was one of the lectures I like most. The learning atmosphere and detailed discussion in sharing the button-hold cannulation technique of permanent AV fistula for hemodialysis also impressed me. Although different type of knowledge I gained in the conference was not in any way articulated for a complete presentation in formal settings, it was really an invaluable experience for my personal and professional development. I appreciate the HKACCN which provided me support to attend the conference.

Ms Maggie Lee at the Conference venue

Ms Maggie Lee (third from right)
and other delegated from Hong Kong
(From left to right: Ms Karen King from Baxter Healthcare;
Ms. Ng Suk Yee, APN (W& U), Renal/TWH;
Ms. Dora Leung, WM, Renal/TMH
From right to left: Ms. Judy Au from Baxter Healthcare ;
Ms. Irene Kong, NS, Renal/PMH)

The hotel where conference delegates stayed was located at the business district. Every morning we traveled to the conference venue by underground train and we needed to pack ourselves in the train during rush hours. The conference venue was Palacio Municipal de Congress and it was newly constructed near the airport. There could be a big

change in temperature from morning to afternoon in Madrid. In the morning the temperature was around 16°C but it might climb up to higher than 30°C in the afternoon.

After the conference, I traveled with other renal nurses from Madrid to Barcelona for sight seeing. We developed a network with each other and shared our professional experiences and practice freely. This relationship also facilitates our future collaboration at work. I found the trip an excellent opportunity for learning from nurses from both overseas and Hong Kong. By the way, there was an anecdote at the end of trip I want to share. We spent an extra day in Paris for sight seeing because the transfer fight to Hong Kong was delayed. Wasn't it a nice surprise?

The 36th EDTNA/ERCA conference will be held at Florence, Italy in September 2007. I strongly recommend our nursing colleagues to take this coming opportunity to learn and share with other nurses from both the international and local contexts.

Evaluation of the ICU Enhancement Program and ECCN Course in Shanghai

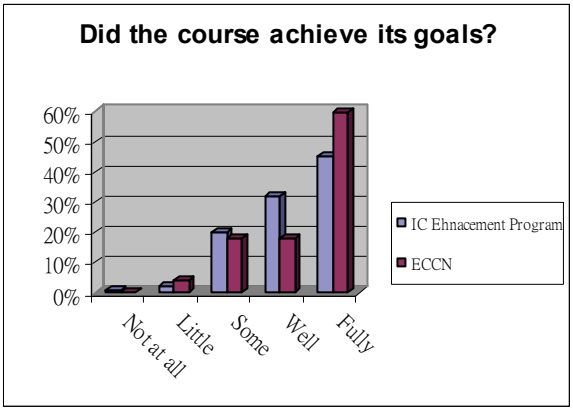
WONG Esther, President; CHAN David, Chairperson, PDC; CHIANG Vico, Chief Editor, Newsletter
HKACCN Ltd

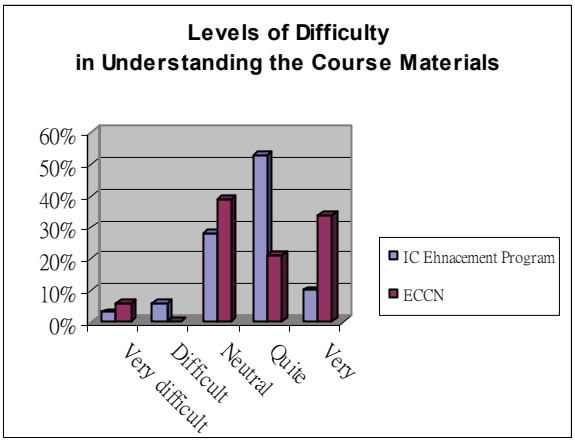
In our last issue Mr. Danny Kong (Vice-chairperson, PDC) reported the experience of an Intensive Care Enhancement Program and an Elementary Critical Care Nursing (ECCN) held by our Association from 4 – 10 December 2006 in Shanghai. From analysis of the evaluation forms we received from the participants we were glad to see a trend of satisfaction in various aspects of the two courses regarding their venues, structures, contents, notes, length, equipment, teaching, and value. One hundred and thirty-four ICU nurses attended the Enhancement Program and 96 nurses from acute medical and surgical wards participated the ECCN course. More than 50 – 80% of the participants ranked most of these aspects in the evaluation forms with good to very good outcomes.

Participants in the Intensive Care Enhancement Program

Regarding immediate programs evaluation, we had 90% response rate for the Enhancement Program and 58.9% for the ECCN course. Majority of the participants indicated that objectives of the courses were achieved and level of knowledge taught in the courses was appropriate in its level of difficulty for understanding and learning.

The following charts demonstrate participants' perceptions regarding goal achievement, and levels of difficulty in understanding materials of the two courses.





The major comments received from the participants improve our future programs and courses. From this occasion majority of the participants in the two courses expressed that, 1) Putonghua of the teachers could be improved, 2) they preferred more interactions, and sharing of overseas experiences in intensive care nursing in the class, 3) some topics to be added, 4) practicum is required for some topics, 5) content of some fundamental nursing care could be removed and some topics require more elaboration, and 6) duplication in the topics should be avoided.

Impression of the class performance in terms of attention to teaching was good but most students were passive listeners. This contradicted the suggestion from some students as indicated above that they wanted more interactions and exchange of dialogues with teachers in the class. In the classroom most of the students did not ask

questions when prompted.

On reflection we believe that for the next time if we run courses for these groups, to avoid duplication, we will thoroughly study what is included in their basic level in intensive care nursing, and their formal ICU training. The PDC was very delighted to see the demands and enthusiasms of our mainland colleagues in pursuing the knowledge and advancement of care in critical care nursing. Future programs require to be longer. The HKACCN is committed and determined to provide the first class education and professional exchange in the advancement of critical care nursing. As our mission states, the

> "HKACCN is dedicated to promoting quality and cost-effective care for critically ill patients, and strengthening ties with their families and the community on achieving the purpose. This is accomplished through health education to the public and healthcare professionals; promotion of research activities to support evidence-based nursing practice; and implementation of agreed practice standards of critical care nursing."

CONFERENCE ANNOUNCEMENT

20 – 21 July 2007
ACCCN Queensland State Conference
Cairns, Australia
http://www.acccn.com.au/images/stories/QLDCourses/flyerqld.pdf

17 – 19 September 2007
British Association of Critical Care Nurses (BACCN) 2007 Conference
Theme: Encouraging Innovation & Promoting Excellence
Place: Brighton, UK
Website: www.baccnconference.org.hk

14 – 17 August 2007
Critical Care society of the Southern Africa
In association with
World Federation of Critical Nurses (WFCCN)
South African Burn Society
Trauma of South Africa

Critical Care Critical Times 2007 Congress
Place: Sun City, South Africa

Website: http://www.criticalcare.co.za

USEFUL LINKS

International Nurses Day 2007
Positive practice environments: Quality workplace = quality patient care

IND Kit Download:
http://icn.ch/indkit.htm

Australian Collage of Critical Care Nurses
http://www.acccn.com.au/

Australian & New Zealand Intensive Care Society (ANZICS)
http://www.anzics.com.au/

European Federation of Critical Care Nurses (EfCCNa)
www.efccna.org

World Federation of Critical Care Nurses (WFCCN)
www.wfccn.org

CONTRIBUTIONS TO THE NEWSLETTER

The HKACCN Newsletter is published quarterly. The editor welcomes articles reporting news and views relevant to critical care nursing. The following deadlines for submission of issues, news clips, short articles, and research briefs must be adhered to for 2006. Please email your contribution to:

Dr. Vico CHIANG at vchiang@hkucc.hku.hk
and
Mr. David CHAN at hkaccn@yahoo.com.hk

Article Preparation
Individual submission should be double-spaced and can be sent through emails. Accompanying photographs must be of good quality. The editor reserves the right to accept, modify, reject and/or check material to corroborate information.

Submission Deadlines
July 2007 issue - 30 May 2007
October issue - 30 August 2007
January 2008 issue - 30 November 2007