

NEWSLETTER

Hong Kong Association of Critical Care Nurses (HKACCN)

Vol. 3, No. 1, April 2001



EDITORIAL

Critical thinking and the development of clinical judgment by critical care nurses

Dr. Violeta Lopez-Nahas (Assoc. Professor/ CUHK)
Chief Editor, HKACCN Newsletter

Critical thinking is recognized as the cognitive drive to process knowledge development and professional judgment, in a wide variety of professional practices. Critical thinking is a purposeful, self-regulatory judgment resulting in interpretation, analysis, evaluation and explanation of concepts, upon which judgment is based (Pless 1993).

The use of critical thinking is evident in problem-solving, decision-making, reasoning, professional practice, and everyday life. Its application in Critical Care Nursing is important due to the nature of the work and patient outcomes in this setting, as key nursing decisions are directed at the rapidly changing health status of their patients. When nurses are faced with life threatening situations; clear decision-making and quick actions are essential. However, the decisions made or actions taken may create conflict with other members of the health care team. Bucknall and Thomas (1995) found that given the variability in decision-making activities performed by critical care nurses, conflict arises that may be linked to burnout and nursing shortages. It is important therefore, for critical care nurses to be aware of the boundaries between medical decisions and nursing decisions.

In making decisions, critical care nurses are often inhibited by the perceived lack of autonomy, lack of knowledge, and dis-harmony with other nurses (Bucknall & Thomas, 1997). They suggested that nurses' knowledge base could be increased through in-service education and continued support nursing decisions.

How can we teach critical thinking skills to critical care nurses to enable them to make informed clinical decisions?

Thinking critically is relevant to decisions made everyday throughout our lives. To choose a course of action is to make a decision. To choose a course of action means to eliminate others. As nurses, we must always be aware of the decisions we make in our practice. The actions we make are based on the way we critically analyze the situation facing us and weigh the alternatives. Nurses already have this skill. What they need to do is consciously utilize this skill. Bandman and Bandman (1995) suggested six phases in decision-making:

1. Recognizing and defining a problem
2. Gathering relevant information
3. Generating possible conclusions
4. Testing possible conclusions
5. Evaluating conclusions
6. Reaching decisions

As critical care nurses, we always value team effort in caring for our patients. We should all maximize this effort and help one another especially in making difficult decisions. When we begin to think together and critically analyze problems we need to realize that each of us has a contribution to make in solving a difficult situation. Most importantly, we should be humbly accept that we may need help in some situations, in order to make a delicate or complicated decision related to the care of our critically-ill patients and their families.

References:

- Bandman EL, Bandman B (1995). Critical thinking in nursing. Sydney: Prentice Hall.
- Bucknall TK, Thomas SA (1997). Nurses' reflections on problems associated with decision-making in critical care settings. Journal of Advanced Nursing 25, 229-237.
- Bucknall TK, Thomas SA (1995). Critical care nurse satisfaction with levels of involvement in clinical decisions. Journal of Advanced Nursing 23, 10-17.
- Pless BS, Clayton GM (1993). Clarifying the concept of critical thinking in nursing. Journal of Nursing Education 32, 425-428.

CLINICAL FORUM

Liver Dialysis : an artificial liver support technique

Mr. David Chan, NS, ICU, PWH
PDC, Chairperson / HKACCN

Liver dialysis or artificial liver support uses an extracorporeal blood purification technique that employs the principle of dialysis for removing liver toxins in patients with liver failure. Patients with liver failure present with many complications such as coagulopathy, encephalopathy, and many others. Other than these complications, accumulation of liver toxins (such as bilirubin, bile acid, digoxin-like immunoreactive substances, indoles, phenols, mercaptans, endogenous benzodiazepines, aromatic amino acids, ammonia, and lactate) will further impair patients' cardiovascular, renal and cerebral functions. Despite recent advances in the management of the critically ill patients, fulminant liver failure continues to have as high as a 90 % mortality. Currently, the only proven curative therapy for patients with fulminant liver failure is liver transplant. However, the shortage of donor liver makes it difficult to provide time for hepatic regeneration, or to provide time for donor availability for liver transplantation.

Over the years, a variety of artificial liver support has been developed, but none of them were proved effective. Since most of the liver toxins have a high binding affinity to albumin, so conventional haemodialysis and plasma exchange cannot effectively remove these toxins. Stange et al (1993) developed the albumin dialysis technique (one form of artificial liver support technique) in Germany for detoxification of liver toxins in patients with liver failure. Albumin dialysis to remove protein-bound toxins can be performed effectively by a Molecular Adsorbent Recycling System (MARS). The MARS consists of 3 sub-circuits: the MARS-FLUX dialysis circuit, the albumin circuit, and the dia-FLUX dialysis circuit. The MARS-FLUX dialyser and circuit are usually primed with heparin-saline for expelling air and for providing a heparin-coated effect. The albumin circuit is primed with saline first, then followed by 20% albumin 600 ml. The dia-FLUX dialyser and circuit are only primed with saline. After cannulation (e.g. femoral vein) with a large bore double lumen cannula, the patient's blood is directed via the cannula into the MARS system and the extracorporeal circuit. Liver toxins (including albumin-bound and water-soluble molecules) will then diffuse across the membrane and enter the albumin circuit. The albumin circuit includes two major components – the anion exchanger and the activated carbon absorber. The ionic exchanger helps to separate the toxins from the

albumin, while the activated carbon absorber helps to adsorb the liver toxins. Liver toxins in albumin circuit will also diffuse across the membrane and get into the diaFLUX circuit. In the dia-FLUX circuit, the dialysate solution (e.g. 1.5% Dianeal solution) is used to enhance the effect of diffusion. Moreover, the counter-current effect of the dialysate solution in the diaFLUX circuit helps to achieve a better effect of removal of liver toxins out into a drainage system. Fluid and electrolyte replacement may be required depending on the actual loss of fluid and electrolyte from the patient. A mean of 6-8 hour treatment per patient for 4-5 times is needed. Treatment can be performed everyday or every other day depending on patient's response to the detoxification therapy, as reflected by the changes in bilirubin level. In a recent study conducted by Stange et al (2000), there were 26 patients with acute or chronic liver failure with intra-hepatic cholestasis (bilirubin level > 20 mg/dL) who underwent this artificial liver support – albumin dialysis. Bilirubin levels and bile acid were reduced by 16-53%, and 10-90% of the initial concentration by a single treatment of 6-8 hours respectively. Of these 26 patients, 17 patients survived. Stange's study showed that albumin dialysis provides a therapy option to remove toxins involved in multi-organ dysfunction secondary to liver failure.

Reference:

Stange, J, Mitzner, S.R, Ramlow, W. et al (1993). A new procedure for the removal of protein bound drugs and toxins. ASAIO Journal, 39: 621-625.

Stange, J, Mitzner, S.R, and Klammt S et al (2000). Liver support by extracorporeal blood purification – a clinical observation. Liver Transplantation, 6(5): 603-613.

CONFERENCE REPORTS

NTI2K National Teaching Institute & Critical Care Exposition 2000

Ms. Ruth Taylor-Piliae (RN / CNS / MN)
Editor, HKACCN Newsletter

NTI is the annual conference organized by the American Association of Critical-Care Nurses (AACN) for all nurses who care for critically ill patients. NTI 2000, the first NTI of the new millennium, was held from 21-25 May 2000 in Orlando, Florida, USA and attended by nearly 7000 people. The theme of the conference was "Pioneering in a World of Innovation". There was a great diversity of educational opportunities for nurses working in variety of positions; including bedside nurses, managers, educators, clinical nurse specialists or nurse practitioners. In addition to

NTI, there was a concurrent Advanced Practice Institute (API) which, offered advanced practice nurses (CNS/NP) to expand their knowledge in current practice, examine issues and trends that impact healthcare delivery and practice. Further, it was an opportunity to refine clinical judgment and critical thinking skills and develop professional networking of colleagues in critical care through social events that included an evening at “Universal Studios Islands of Adventure”.

The Critical Care Exposition, one of the largest and most comprehensive trade shows for critical care nurses, had over 400 companies represented. The latest in pharmaceuticals, technology, publications, continuing education and career opportunities were made available as well.

The HKACCN had about 20 members joined the conference. They all attended and viewed my research poster presentation entitled, “*Coping Strategies used by Chinese Men After Cardiac Catheterization*” at the NTI2K. I strongly recommend that members and other colleagues working in critical care consider attending at least once. It is an enriching experience, both professionally and personally.

Reference:

Taylor-Piliae, R (2000) “Coping Strategies used by Chinese Men After Cardiac Catheterization”. *American Journal of Critical Care* 9 (3), 216

BACCN International Critical Care Nursing Conference

Dr. Violeta Nahas (Assoc. Professor / CUHK)
Chief Editor, HKACCN Newsletter

I attended the International Critical Care Nursing Conference in Edinburgh, Scotland held from 18- 21 September 2000 and also presented a paper on behalf of my colleague entitled: “*Waiting for a heart transplant: the lived experience of heart transplant candidates in Hong Kong.*” This conference was organized by the British Association of Critical Care Nurses and attended by around 400 delegates. The theme of the conference “Global Connections” covered topics around the four sub-themes of (1) caring (2) creativity (3) communications and (4) collaboration. The European Federation of Critical Care Nursing Associations presented their plans for the year 2001 and beyond; with the aim of enhancing closer ties among critical care nurses within the European region. The Australian, British, and American associations also provided us with their visions of critical care nursing in the 21st century. It was a very informative event. The social gatherings

created an avenue for further networking. The social events included a buffet disco and a rock concert. The highlight of the conference was a Ceilidh dinner at the National Museum of Scotland. Some male members of the Scottish Critical Care Nurses Association wore their traditional kilts during this dinner.

Attendance to any conferences related to critical care nursing is always a worthwhile & informative experience and critical care nurses in Hong Kong must always make an effort to attend such conference. This is one avenue to broadening our perspectives in improving our practice.



WEBSITES OF INTEREST

Australian College of Critical Care Nurses (ACCCN)
<http://www.acccn.com.au>

World health Organization Statistical Information
<http://www.who.int/whosis/>

Health web nursing page
<http://www.lib.umich.edu/tlm/nursing.html>

National heart, lung and blood institute
<http://www.nhlbi.nih.gov/index.htm>

CINAHL information systems
<http://www.cinahl.com>

NEW HKACCN HOMEBASE

Room 22A, Yue On Commercial Building
382 Lockhart Road Wanchai
Hong Kong
Tel.: 2861 2972
Fax.: 2861 2784

Conference Announcements

19 May- 24 May 2001

28th National Teaching Institute & Critical Care Exposition, American Association of Critical-Care Nurses (AACN), "Make Waves: The courage to influence practice". Anaheim, California, USA (Registration before 10 April 2001- save \$50.00US) www.nti2001.org

27-29 June 2001

IX Congress of the International Society for Peritoneal Dialysis, Montreal, Canada

28 October- 1 November 2001

8th World Congress of Intensive & Critical Care Medicine: Intensive Care in the New Millennium. Sydney, Australia www.iccm.aust.com

Greetings to new members

The HKACCN takes this opportunity to welcome all new members who have chosen to join the Association in enhancing and promoting excellence in critical care as a new dimension in nursing education, practice, management and research. Members are encouraged to continuously support and promote the Association and its activities to their colleagues.

Editorial Staff

Chief Editor	Violeta Lopez-Nahas
Associate Editors	Ruth Taylor-Piliae Esther Wong David Chan
Publication	Virginia Cheung Wong Lai King

Contributions to the Newsletter

The HKACCN Newsletter is published three times a year. 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 2001. Contributions can be sent to:

Dr. Violeta Nahas, Editor
Room 305 Tsang Shui Tim Building
United College, CUHK
New Territories, HK

Tel No. 2609 7599

Fax No. 2603-5936

Email: violeta@cuhk.edu.hk

Article preparation

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

Submission dates

April issue – March 27

August issue - July 30

December issue – November 30

MANAGEMENT FORUM

You are welcome to share with us any learning points with regard to nursing management or leadership in clinical settings. Please send your submission to wongyh@ha.org.hk. You will be presented with a souvenir in our Annual Dinner 2002 when your submission is published. We will start with "Feedback" this time:

Giving feedback -----

OFFER ADVICE THAT SINKS IN

You might have great advice for your subordinate / an employee, but if you deliver it poorly, it will fall by the wayside. Here's how to make an impact:

- **Wait until they ask for advice.** That's better than dishing out unsolicited opinions. Even if you share valuable insights, employees may see it as meddling. Entice employees to seek your input by asking lots of questions. Respond by saying "I can identify with that" or "Yes, I have experience with that." They may follow up by asking you to elaborate.
- **Share information.** If you're reluctant to advise a proud or stubborn employee, give information instead. Reporting facts and letting others draw their own conclusions is less pushy than telling them what to do.
Example: Replace "I'd beware of delegating that project to Mark" with "Mark didn't finish his last job."
- **Check in to ensure you're making headway.** Break your advice into steps. After each stage, ask "Does that make sense?"
- Adapted from *Investor's Business Daily*, (800)831-2525.

Receiving feedback -----

TAKE CRITICISM WITH GRACE

When you hear criticism, it's important to judge the message, not the messenger.

- **Look beyond the delivery.** Most people who criticize think they're right, and their tone can annoy you. Don't let your irritation stop you from listening.
- **Resist the urge to instantly evaluate** what you hear. Instead, confirm that you understand the criticism. Use phrases such as "Just to clarify, your point is . . ." or "So the gist of your input is . . ." Make sure the person nods and accepts your summary.
- **Soothe the speaker.** Some people find it upsetting to criticize. Make it easier for them to level with you by showing eagerness to hear their feedback. Say "Tell me more" or "Please go on." Maintain an earnest, receptive facial expression, not a scowl.

- Adapted from *On the Edge and In Control*, Deborah Bright, McGraw-Hill, (212)512-2000.