Report of
Intercontinental Critical Care Centre of Excellence
Steering Committee Meeting

Meeting Educational Challenges

January 29th – February 1st, 2002
Marriott Desert Springs Hotel, Palm Springs, CA

www.ICE-CCM.org (in construction and nearly complete!)

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Introduction

Following discussions with Eli Lilly Canada and Eli Lilly Intercontinental Region, a selected group of Canadian Critical Care physicians recently organized the **1st Intercontinental Critical Care Centre of Excellence Steering Committee** meeting on January 30th – February 1st, 2002. This meeting was made possible with the support of an unrestricted educational grant from Eli Lilly.

Background

The critical care group at Mount Sinai Hospital was approached by Lilly to help create an educational forum that would be useful to critical care providers internationally. After initial discussions, it was determined that a forum would only be successful if: 1) it was something that the international critical care community needed and 2) it offered the international critical care community with the opportunity to take part in leading the forum. In addition, it was felt that the Canadian leadership should not stem from just one hospital but that the forum should be and inter-hospital and inter-university led initiative. The general objective of this steering committee meeting was to develop the educational forum's agenda, timeline, objective, and evaluation processes. The goal of the meeting was to foster education and idea exchange in critical care according to the needs of critical care providers around the world. International participants were selected based on their status as critical care opinion leaders in their respective countries.

Specific Objectives

The specific objectives of this meeting were:

1) To learn about critical care practice in the various countries represented at the meeting
2) To create a needs assessment for future educational forums
3) To create an agenda for an educational forum directed at intercontinental critical care providers to be held in Toronto in May 2002
4) To form a collaborative group interested in creating educational tools, utilizing them, and evaluating their impact; and
5) To discuss long term goals and strategies

Participants

The critical care experts that attended this meeting are represented in the following table and in Figure 1.

TABLE 1: INTERCONTINENTAL CRITICAL CARE CENTRE OF EXCELLENCE STEERING COMMITTEE

Representative	Country	Affiliation
Vladimir Cerny	Czech Republic	Associate Professor in Anesthesiology and Intensive Care, Charles University/University Hospital, Hradec Kralowe
Guillermo Dominguez-Chérit	Mexico	Chief, Critical Care Unit Instituto National de Nutrición
Kang Hoe Lee	Singapore	Associate Professor, National University Hospital
Justus Gideon Kilian	South Africa	Private Practice, Pulmonary and Critical Care

Representative	Country	Affiliation
Andrzej Kubler	Poland	Professor and Chairman, Department of Anesthesiology and Critical Care Medicine, University of Wroclaw School of Medicine
Stephen Lapinsky*	Canada	Associate Director of ICU, Director of the Technology Applications Unit, Mount Sinai Hospital and University of Toronto
Moni Litmanovitch	Israel	Director, General Intensive Care Unit, The Hillel Yaffe Medical Center, Hadera
Fernando Palizas	Argentina	Chief, Critical Care Unit, Clínica Bazterrica, Buenos Aires
Guy Richards	South Africa	Director, ICU, Johannesburg Hospital Associate Professor, University of the Witwatersrand
Yahya Shehabi	Australia	Director of Intensive Care Services, Prince of Wales Campus, UNSW Medical School, Randwick-Sydney
William Sibbald*	Canada	Physician-in-Chief, Sunnybrook and Women's College Health Sciences Centre, University of Toronto
Eliezer Silva	Brazil	Coordinator of Hemodynamic Group, CCU: Hospital Israelita Albert Einstein, Sao Paolo
Arthur Slutsky*	Canada	VP Research, St. Michael's Hospital, University of Toronto
Thomas Stewart*	Canada	Director, Intensive Care Unit, Mount Sinai Hospital, Toronto Associate Professor of Medicine and Anaesthesia, University of Toronto
Gee Young Suh	Korea	Department of Pulmonary and Critical Care Medicine, Samsung Medical Centre SungKyunKwan University School of Medicine, Seoul
Randy Wax*	Canada	Associate Director and Education Director, Critical Care Unit, Mount Sinai Hospital, University of Toronto

* Member of organizing committee. Organizing members not present include Deborah Cook and Claudio Martin.

FIGURE 1: PARTICIPANTS (FROM LEFT TO RIGHT): TOM STEWART, KANG HOE LEE, RANDY WAX, GUILLERMO DOMINGUEZ-CHERIT, STEPHEN LAPINSKY, VLADIMIR CERNY, MARTINE PETTIGREW (ELI LILLY CANADA), HULYA BARAN (ELI LILLY USA), ELIEZER SILVA, FERNANDO PALIZAS, MONI LITMANOVITCH, YAHYA SHEHABI, BILL SIBBALD, SEBASTIAN SORSABURU (ELI LILLY LATIN AMERICA), ARTHUR SLUTSKY, JUSTUS KILIAN, GUY RICHARDS, GEE YOUNG SUH, ANDRZEJ KUBLER

Global Critical Care Practice

Each international delegate was given the opportunity to present a brief overview of critical care practice in their respective country, with particular focus on demonstrating thoughts on critical care education needs. Table 2 summarizes the key topics discussed by each presenter.

TABLE 2: GLOBAL CRITICAL CARE PRACTICE

Presenter (Country)	Critical Care Models	Training in CC	Needs
Vladimir Cerny (Czech Republic)	▪ Majority of ICU beds are located in departments of anesthesiology and intensive care (674 beds in total) ▪ 99% of ICUs have an ICU Director (decision maker) ▪ Majority of ICU physicians have anesthesiology as their specialty	▪ Medical students have a 15 hour course "Basics of Intensive Care Medicine" in their 5th year ▪ Surgery and internal medicine residents have a 3 month rotation in the ICU ▪ Anesthesiology and intensive care residents have 12 month rotation in the ICU ▪ New subspecialty "Intensive Care Medicine" is awaiting approval	Improvements in: ▪ Quality control development ▪ Practice guidelines ▪ Organization of academic activities ▪ Research techniques ▪ Improved educational activities
Guillermo Dominguez-Chérit (Mexico)	▪ Most teaching hospitals are government run ▪ Both closed and open ICU models ▪ ICU physicians have background in internal medicine (80%), anesthesia (20%) and pulmonary medicine (5%) ▪ Decision makers are ICU staff, primary physician and consulting staff	▪ There are 22 critical care residency programs ▪ No formal ICU training for medical students ▪ Residents in internal medicine, anesthesiology and surgery have 3 month rotation in ICU	▪ Homogeneity in high technology ▪ Increased number of research programs ▪ Better access to medical information (on average about 60% of physicians have access to the Internet) ▪ More opportunities to attend major CC meetings
Kang Hoe Lee (Singapore)	▪ Open ICUs (minority) and closed ICUs (majority – mainly government) ▪ Most physicians have backgrounds in anesthesia, pulmonary/internal medicine, or surgery ▪ Key decision makers: surgeon and anesthesia in SICU; CCM and primary physician in MICU; surgeons in CTICU	▪ All specialists train abroad for at least one year ▪ Currently, no formal critical care training in place (residents have optional 6 week rotation in ICU) ▪ Proposal to establish Training System for Intensive Care Medicine – currently under review (24 month training with specialist accreditation) – maybe in collaboration with Australia/New Zealand Critical Care Societies	▪ Acute medicine: FCCS course, guidelines/protocols, computer/clinical decision support ▪ Recognition of ICU as a special area to make a case to government and administrators ▪ Development of a joint CCM curriculum

Presenter (Country)	Critical Care Models	Training in CC	Needs
Andrzej Kubler (Poland)	▪ General Intensive Care Department in hospitals (300) ▪ Exclusively closed ICUs ▪ 2800 total ICU beds ▪ Instructions are based on recommendations and guidelines of European Society of Intensive Care Medicine ▪ Key decision makers: medical staff and director of department	▪ Full time practical training in accredited Intensive Care Departments with final examination (2 years of training) ▪ Formal training in critical care is open to other specialties to promote multidisciplinary access to training program ▪ Residents in internal medicine and surgery have 1-2 month training modules in ICUs during base specialty training ▪ Medical students have 30-60 hrs of exposure to intensive care ▪ No uniform national standards for undergraduate teaching in intensive care medicine	▪ Introduction of program in continuing medical education in intensive care medicine ▪ Nursing staff education ▪ Recent survey identified the following physician education needs: ▪ Education regarding economics of intensive care medicine ▪ Quality management in intensive care ▪ Informatics and database creation ▪ Ethics ▪ Biostatistics, research organization and education
Moni Litmanovitch (Israel)	▪ 18 general ICUs ▪ All ICUs are closed units ▪ 50% of intensivists have backgrounds in anesthesiology, 30% are internists, and 20% are surgeons ▪ Key decision makers: head of ICU and senior consultants (all CCM specialists)	▪ Critical Care Medicine is a formal subspecialty as of 1993 ▪ Certification requires a full residency (2 yrs) and examinations ▪ Formal ICU training: 12 months in general ICU, 3 months in Cardiac ICU plus additional 9 month rotations; for non-anesthesiologist, a 3 month rotation in anesthesia is a must ▪ Medical students are exposed to ICU during internal medicine and surgery blocks	▪ Students should have a formal block of ICU training in ICU (currently it is optional) ▪ Formal mandatory rotation in ICU for residents of internal medicine ▪ A CCM program should be established that is only dedicated to CCM ▪ International exchange programs to widen exposure to different models
Fernando Palizas (Argentina)	▪ 50% of hospitals are private while the rest are public institutions ▪ More than 95% public ICUs are closed ▪ 98% of intensivists come from internal medicine (none from	▪ Internal residents: no less than 2 years of a certified residence program ▪ No formal critical care training for medical students ▪ After 1st level training, there is a 3	▪ Encouragement of critical care units to accomplish certification guidelines ▪ Need to convince the Board of Faculties of Medicine to include critical care as a separate

Presenter (Country)	Critical Care Models	Training in CC	Needs
	anesthesiology) ▪ Certified units constitute only 30% of all ICUs	years residence and 2 years fellowship program	chapter in training medical students
Yahya Shehabi (Australia)	▪ 115 public and 55 private ICUs ▪ Most are closed units ▪ 1912 total beds ▪ Key decision makers: intensivist on duty; appropriate	▪ Discipline of critical care: anesthesia, emergency medicine, and intensive care – curriculum prepared by physicians ▪ Fellowship examination required for critical by the Faculty of Intensive Care program ▪ No overseas core training ▪ Joint Faculty of Intensive Care Medicine (new proposed program)	▪ Structured CCM undergraduate teaching ▪ Full use of IT capabilities ▪ Administrative and business principles ▪ More research collaborations with universities ▪ Better maintenance of skills and standards ▪ Rural intensive care needs
Eliezer Silva (Brazil)	▪ 70% of hospitals are private with open ICUs and 30% are public with closed ICUs ▪ Only 17.5% university hospitals ▪ Only 23% of ICU physicians are specialized in CC ▪ Only 15% of ICU physicians are trained by accredited institutions	▪ Postgraduate courses, residency and fellowship programs	▪ Knowledge homogenization ▪ Continuous educational programs ▪ Essential guidelines ▪ Adequate medical training ▪ Evaluation tools ▪ Research programs
Gee Young Suh (Korea)	▪ Majority of ICUs are open ▪ Surgical and multidisciplinary ICUs: many anesthesiologists ▪ Medical ICUs: pulmonologists and cardiologists ▪ Coronary care unit: cardiologists ▪ Key decision makers: intensivist	▪ No formal training in critical care ▪ Few hours of medical clerkship for medical students ▪ In 2001, working group to form guidelines for CC training established by Korean Society of Critical Care Medicine	▪ More physicians devoted to CC are needed ▪ The need for intensivist-driven ICUs ▪ Formal training and guidelines needed

Literature Retrieval and Acquisition for the Critical Care Physician in the 21st Century, Guy Richards

Dr. Richards presented numerous strategies that critical care physicians can employ to keep up with literature including:

- Subscription to journals
- Journal review services
- Journal – table of contents
- Journal clubs
- Congresses
- Departmental topics

The following table summaries key points from his presentation and presents a sampling of tools and resources that can be employed to gain access to the latest information related to critical care.

TABLE 3: A SAMPLE LIST OF TOOLS AND RESOURCES TO KEEP UP WITH LITERATURE

Organizations/Tools	Sample Journals	Review Services
Pulmonary and Critical Care (PCCU) online http://www.chestnet.org/education/pccu/	ACCP: www.chestnet.org	Pulmonary and Critical Care (PCCU) online http://www.chestnet.org/education/pccu/
Continuing Medical Education (CME) resources	AJRCC: American Journal of Respiratory and Critical Care Medicine http://ajrccm.atsjournals.org/	Oakstone Publishing http://www.oakstonemedical.com/index.html ▪ Practical Reviews of Chest Medicine ▪ Audiocassette/CD, CD ROM, Computer Diskette Abstract Cards – Reviews of Chest Medicine and Critical Care Medicine and related journals
American Thoracic Society (ATS) http://thoracic.org/	Chest http://www.chestjournal.org/	Intensive Care Monitor http://www.intensive-care-monitor.com/ ▪ A bi-monthly - six issues a year plus index - current awareness journal for intensive care clinicians ▪ Has permission to abstract papers from over 120 journals
Society of Critical Care Medicine http://www.sccm.org/	New England Journal of Medicine http://content.nejm.org/	

Other resources discussed included:

Congresses:
- Pre-congress review courses – e.g. "The Year in Review" – Chest/SCCM/ATS
- Presentations by opinion leaders
- Expensive therefore local refresher courses may be more reasonable

Journal Clubs:
- Primary use is to learn how to evaluate an article
- Often too few to review large numbers of journals

Department Meetings:

- Discussion and review of current topics

Using Technology Tools at the Bedside, Stephen Lapinsky

One characteristic of today's ICUs is the immense amount of data generated on a day-to-day basis. It has been reported that one ICU patient generates up 236 variable categories[1] while humans are only capable of managing 5 to 9 variables adequately[2]. In order to keep up with the necessary information to carry out tasks, physicians must refer to a multitude of resources including journal articles, textbooks, electronic medical literature, hospital protocols and guidelines. Insufficient data access and communication between healthcare staff have the potential to lead to increased costs and medical problems in the ICU.

Various technology platforms have been developed to address the data overload and communication problems encountered in medical institutions. They include:

- Electronic patient records
- Decision support systems
- Handheld computers
- Electronic journals
- Electronic books
- Wireless communication
- Electronic Imaging

The following table lists some of the tools that have been developed and are in use at Mount Sinai Hospital in Toronto:

TABLE 4: TECHNOLOGY USE AT MOUNT SINAI HOSPITAL

Tool	Characteristics
Automated Paging Alert System	▪ Software "agent" scans hospital database ▪ Filters are incorporated into the system (e.g. location = ICU) ▪ Generates automated page ▪ Allows for ongoing evaluation (e.g. time to intervention, physician/nurse satisfaction)
Hospital Wireless Communication	▪ In hospital wireless telephone ▪ 3-line function ▪ Forwarding option ▪ Physicians can be instantly accessible
Digital Wireless Network Area	▪ IEEE 802.11b wireless LAN at 11 Mb/s ▪ Wireless cart allows bedside access to hospital system, internet, PACS radiology, order entry ▪ There is also built in potential for video transmission, wireless handheld, and wearable computers
Handheld Computers	▪ In widespread use in both medical and non-medical communities ▪ 10% use by US physicians ▪ 40% use by residents ▪ Internationally compatible

[1] Morris, Crit Care Clin 1999, 15:523
[2] Miller, Psychol Rev, 1956, 63:81

- Allow for access to: patient information, medical reference information, tracking education experience, scheduling and contacts, non-synchronous communication

Several studies have been employed at Mount Sinai Hospital to evaluate the use of emerging technologies in critical care. They are summarized in the following table. For more information, visit www.medtau.org.

TABLE 5: STUDIES EMPLOYED TO EVALUATE EMERGING TECHNOLOGY IN CRITICAL CARE

Study	Results
Qualitative evaluation of handheld computers in the ICU	▪ 6 month study program, 24 handheld users, 3 focus group meetings
Comparison between "paper" and electronic medical reference database	▪ 3 week control (paper) and 3 week handheld ▪ Both subjective and objective assessment
Evaluation of surgical procedure logging using handheld devices	▪ 69 general surgical residents ▪ Data entry on palm ▪ Internet download of procedure data ▪ Data access: trainees can access their individual database via a secure website ▪ Reports can be generated to allow evaluation of trainees, teachers, hospitals etc.
Evaluation of handheld pharmacopoeias	▪ Studies with physicians and pharmacists ▪ Essential parameters were identified ▪ Information accessed include: functionality, cost, updates
Ontario Critical Care Information Network	▪ Involves physicians from: Mount Sinai Hospital, University of Toronto, The Scarborough Hospital, North York General Hospital, St. Joseph's Health Centre, William Osler Health Centre ▪ Creation of an ICU Information Database that can be accessed using handhelds and computers from different participating institutions and updated daily via internet ▪ This model can be applied to an International Network

Simulation Technology: A Tool for Teaching/Evaluating Skills and Patient Management in the ICU, Randy Wax

Dr. Wax presented an overview of Simulation Technology and its role in the ICU as a tool for teaching, evaluating, and patient management. He demonstrated the limitations with traditional learning:

- Learning a task in the classroom does not necessarily lead to proper execution in practice
- Some clinical experiences are so life threatening that students are not able to be involved in patient management
- There are rare clinical experiences that many students will not experience until the midst of caring for the patient

Simulation technology is used in many "high reliability" fields such as aviation, nuclear power, and military flight operations as a tool for training and reduction of error. In a healthcare setting, simulation technology offers many advantages:

- No risk to patients
- Underlying causes of the situation are known
- Able to present a variety of scenarios including uncommon but critical situations
- Users can evaluate the results of their actions
- With mannequin-based simulators, clinicians can use actual medical equipment, thereby recreating clinical environments.
- Intensive and intrusive recording of the simulation is feasible
- There are no issues of patient confidentiality
- Recordings can be preserved for research, performance assessment, or accreditation

Simulation technology can be used to teach and evaluate specific skills such as intubation, bronchoscopy, and defibrillation as well as the integration of knowledge, skills, and decision-making.

Dr. Wax introduced SIM MAN Universal Patient Simulator, the simulation mannequin used in training and education at the University of Toronto, to the group. SIM MAN's profile offers the following features:

- Life size mannequin
- Computer controlled with all vital life signs (terminology) presented on a computer screen
- The following is a list of procedures that can be performed:
- Airway management (basic and advanced)
- Fibreoptic intubation
- Pulse and blood pressure
- Peripheral IV access
- Oxygen therapy
- Mask ventilation
- Decompress tension pneumothorax
- Cardiac rhythm monitoring
- Shock unstable rhythm
- Chest tube insertion
- Invasive hemodynamics
- Ventilator management

Simulation technology can also be used in epidemiology and modification of errors and crisis resource management. In addition, valuable tool for teaching communication and leadership skills.

The Mount Sinai Hospital/University of Toronto Human Simulation Program includes the following initiatives:
- Mock cardiac arrests
- Life saving delegated medical acts
- Pre-ACLS interventions
- Medical and critical care residents
- Continuing education courses
- Technology evaluation

Quality Improvement: The Value of Working Together, Bill Sibbald

Dr. Sibbald presented an overview of the importance of management, leadership, and communication in the ICU. The following list of management basics and tools to address them were introduced:

TABLE 6: MANAGEMENT BASICS AND TOOLS

Question	Tools
What are we doing?	Utilization review
How well as we doing it?	Benchmarking
How do we improve?	Change, utilization management, and translating
Did we achieve the desired change?	Evaluation

The concept of a network consisting of hospitals and a core support team that would address questions, offer insight, and collect data to create summary reports, educational sessions, and to offer practical advice, was also discussed.

Preliminary Discussions on 1st Education Forum in May 2002

One of the primary objectives of this workshop was to discuss issues relevant to developing an Educational Forum in Critical Care. Several topics were presented as sessions that may be important for the forum:

1. Developing joint research projects
2. Administration in the ICU: Business, Economics, Organization
3. Marketing of ICUs
4. Simulation technologies to teach communication, team work and leadership
5. Quality control/evaluation
6. Technology evaluation
7. Management updates: sepsis, ventilation, antibiotic resistance, guidelines/ protocols etc.
8. Dissemination of articles
9. Evaluation of literature – evidence based medicine
10. Keeping up with the literature
11. The role of new technologies in the decision making process
12. Skill recognition and identification
13. Relationships/partnerships
14. Developing a business case

The concept of creating a **Leadership Forum** was discussed in great detail and the following suggestions and recommendations were put forward:

- Name: International Collaboration for Excellence in Critical Care Medicine (ICE-CCM)
- Function: A Leadership Forum would allow international critical care experts to participate in training sessions in various areas relevant to critical care practice.

Following these sessions, leaders would be expected to return to their respective countries and disseminate what they have learned to their colleagues and trainees.

- Strategy for choosing leaders: There must be a strategic method for choosing who will be invited to participate in these educational workshops. Ideas that were proposed included:
    - Requests for a letter of intent with the intention of finding international leaders,
    - Each member may consult his or her local Critical Care Society in order to determine the most appropriate candidate for such a workshop. In this way, buy-in from local CC societies would be encouraged.
    - The Heads of CC units would be the ideal first choice as they are the natural leaders in the field of CC in their countries.
    - Need to consider individuals that are responsible not only at the level of care but also at the level of management (i.e. nurses, pharmacists, unit coordinators)
    - Need to consider the political system in different countries in determining the appropriate opinion leader
- Goals of such a Forum:
    - To provide leadership skills for critical care clinicians
      Such leadership skills would include but not be limited to team building, communication, business case development, marketing, understanding government and administration, interacting with industry, updates on current literature, and technology utilization.
    - To ensure that this information gets disseminated through adopting an evaluation mechanism.
    - Our goal is to equip individuals to teach leadership in their respective communities. We would like to repeat the leadership training sessions to obtain a multiplier effect. In addition, we would like to reassess the training to make improvements and evaluate it to determine its impact.
- Conclusions:
    - The option of involving national CC societies was left up to the individual
    - There was consensus that a portion of the Education Forum in May will be devoted to leadership training.

Preliminary Agenda for Education Forum

The following preliminary agenda was proposed for a 3-day Education Forum in Critical Care in Toronto on May 15-17, 2002.

TABLE 7: PRELIMINARY AGENDA FOR EDUCATION FORUM IN CRITICAL CARE

Day 1: Technology and ICU Management	Day 2: Safety Updates	Day 3: Information Exchange
Topics may include: ▪ Simulation technology ▪ Marketing ▪ Management ▪ Pharmacoeconomics ▪ Business case development	Topics may include several of the following: ▪ ARDS ▪ Stroke ▪ Ventilator management ▪ Sepsis ▪ Infection control ▪ Antibiotic resistance ▪ DVT ▪ Hemodynamic monitoring ▪ Trauma (head injury) ▪ AHRQ	Topics may include: ▪ Ethics ▪ Technology (e.g. handhelds) ▪ Literature reviews ▪ Evidence based medicine ▪ Telemedicine ▪ Future steps and long term strategy

The steps that are required to finalize this Forum include:
- Eli Lilly's final decision to support this meeting → Action: Martine Pettigrew
- Budgetary issues → Action: Martine Pettigrew and Samar Saneinejad
- Finalize the agenda for the 3-day workshop → Action: Tom Stewart

Long Term Initiatives

As a follow-up to the Education Forum in May, the following long term strategies were proposed:

- Committee meetings on an annual basis to evaluate the outcomes of the workshops and discuss the implementation of any necessary changes
- Website development for the group will include content such as guidelines/protocols, webcasts of didactic lecture, marketing material, goals and objectives, participants, etc.
- Involvement of CC societies and universities
- Identify data sets or milestones to compare, evaluate, measure against other models
- Establish a network where advanced cost effective technology is shared/ disseminated across countries
- International fellowship program for critical care training: exchange of fellows/ residents/trained intensivists
- Develop strategies where this type of Forum becomes self-sustained
- Promote the Centre's activities

Appendix A: Meeting Agenda

Intercontinental Critical Care Centre of Excellence Steering Committee Meeting

Meeting Educational Challenges

January 30- February 02, 2002, Desert Springs Hotel, Palm Springs

Agenda

Wednesday January 30, 2002

7:00-9:00 pm	Opening Reception
LOCATION	**Hospitality Suite 4029**

Intercontinental Critical Care Centre of Excellence Steering Committee Meeting

Meeting Educational Challenges

January 30- February 02, 2002, Desert Springs Hotel, Palm Springs

Agenda

Thursday January 31, 2002

LOCATION	**Directors Suite III**	
7:45-8:30	**Refreshments**	
8:30-8:35	**Welcoming Remarks and Introduction**	Tom Stewart
8:35-8:40	**Welcome from Lilly**	Martine Pettigrew
8:40-9:00	**Overview and Scope of the Issues**	Tom Stewart
9:00-10:40	**Practice of Critical Care in Intercontinental Regions** Each Intercontinental participant will present for 5 minutes (followed by 5 minutes for discussion) on the practice of critical care medicine in his or her country. Specific questions to be addressed include: 1. Types of ICU models (i.e. open vs. closed) 2. Training of ICU physicians. - Background training (i.e. medicine, surgery, anaesthesia, other) - Formal critical care training 3. Is there formal training for medical students, residents and/or fellows in critical care medicine? 4. Who are the key clinical decision makers in your intensive care units? 5. Your thoughts on pressing critical care educational needs in your country.	
10:40-11:00	**Refreshment Break**	
11:00-11:25	**Strategies that One Might Employ to Keep up with the Literature** Guy Richards	
11:25-11:30	**Group Discussion**	
11:30-11:50	**Using Technology Tools at the Bedside** Stephen Lapinsky	
11:50-12:00	**Group Discussion**	
12:00-12:25	**Simulation Technology: A Tool for Teaching/Evaluating Skills and Patient Management in the ICU** Randy Wax	
12:25-12:30	**Discussion**	

12:30-12:50 **Quality Improvement: The Value of Working Together**
Bill Sibbald

12:50-2:00 **Discussion and Lunch**

LOCATION **Desert Springs Hotel Front Lobby**

7:45-8:00 **Meet for Transportation to Restaurant**

LOCATION **The Cliffhouse La Quinta Restaurant**

8:00-10:30 **Group Dinner**

Intercontinental Critical Care Centre of Excellence Steering Committee Meeting

Meeting Educational Challenges

January 30- February 02, 2002, Desert Springs Hotel, Palm Springs

Agenda

Friday February 01, 2002

LOCATION	**Directors Suite I**
7:45-8:30	**Refreshments**
8:30-9:00	**Further Discussion from day 2 Focusing on Plans for an Educational Forum**
9:00-9:45	**Discussion Groups:** The participants will be broken up into 2 groups each with a chairperson. Chairs: Art Slutsky / Guy Richards Each group will be challenged with discussing types and priorities for didactic and interactive sessions for a future educational forum. In addition, recommendations for ideal numbers and types of participants for such a forum will be discussed. Needs will be considered by category: Areas to consider include (but not limited to): Physiology of Systems, Sepsis, Emerging Technologies, ICU organization, Administrative Challenges, Ethical Issues and Cultural Differences.
9:45-10:30	**Presentations by Chairs and Group Discussion**
10:30-10:45	**Refreshment Break**
10:45-11:30	Again we will break into 2 discussion groups. One group will be challenged with designing “hands-on” sessions and the other group with designing didactic sessions / technology applications for an educational forum. Chairs: Randy Wax and Stephen Lapinsky
11:30-12:00	**Presentations by Chairs and Group Discussion**
LOCATION	**Directors Suite II**
12:00-1:30	**Lunch and Meeting Review and Review of Original Objectives**
LOCATION	**The Pointe (Outdoors, *Please Dress Warmly*)** Located on Hotel Property; Accessible by Boat or by Walking – *details to follow*
5:00-7:30	**Closing Cocktail Reception**

Appendix B: Meeting Evaluation

Intercontinental Critical Care Centre of Excellence Steering Committee Meeting

Meeting Educational Challenges

Evaluation Form

Technical Evaluation

1. **Do you find that the communication between yourself and the meeting organizers prior to the meeting was clear and sufficient? If not, please explain.**

   a) Yes.
   b) Yes.
   c) Very Clear.
   d) Greatly so, yes. I did not receive the request to present critical care in my country in five minutes though.
   e) Very good.
   f) Yes.
   g) Yes.
   h) Yes.
   i) Yes.
   j) Yes.
   k) Very clear and adequate.
   l) Somewhat short notice, but otherwise good.
   m) Yes. The organization was perfect, including all the details I needed.
   n) Yes.
   o) Not in all areas. The purpose of this meeting was to define our goals for the future, so the purpose get clearer as the meeting went on.

2. **Were the objectives of this meeting clear from the beginning?**

   a) To a large extent.
   b) Reasonably clear; became much clearer early on in the meeting.
   c) Not really – developed there.
   d) Yes, but they did get clearer at this meeting.
   e) Not completely.
   f) Yes.
   g) No.
   h) Mostly yes.
   i) Not all, but most of them.
   j) Yes.
   k) A conceptual objective was clear, defined objectives were developed during the meeting.
   l) No, but the meeting was designed to formulate objectives.
   m) Yes, but they were clarified during the meeting.
   n) Yes.

o) It wasn't very clear in the beginning, but as it unfolded it became very clear it would be of tremendous help to all of us.

3. Did you find the presentations from each intercontinental participant informative?

a) Very.
b) Very!
c) Yes.
d) Most definitely. The basic set-up should not be forgotten.
e) Yes.
f) Absolutely.
g) Yes – very.
h) Very much so.
i) Yes.
j) Yes.
k) Absolutely.
l) Yes – more information on individuals necessary.
m) Very informative.
n) Yes.
o) Very informative.

4. On a scale of 1-5, (1=weak and 5= Excellent), how would you rank the following presentations:

a. Strategies that One Might Employ to Keep up with the Literature
Guy Richards

a) 5
b) 5
c) 5
d) 5
e) 4
f) 5
g) 4
h) 5
i) 4
j) 4
k) 4
l)
m) 5
n) 5
o) 4

b. Using Technology Tools at the Bedside
Stephen Lapinsky

a)
b) 5
c) 5
d) 5
e) 4
f) 5
g) 5
h) 5
i) 4
j) 5

k) 5
l) 5
m) 4
n) 5
o) 4

c. Simulation Technology: A Tool for Teaching/Evaluating Skills and Patient Management in the ICU
Randy Wax

a)
b) 5
c) 5
d) 5
e) 4
f) 4
g) 5
h) 5
i) 4
j) 4
k) 5
l) 5
m) 4
n) 5
o) 4

d. Quality Improvement: The Value of Working Together
Bill Sibbald

a) 5
b) 5
c) 5
d) 5
e) 5
f) 3
g) 4
h) 5
i) 5
j) 5
k) 4
l) 5
m) 5
n) 5
o) 5

5. Do you feel that the initiatives that have been discussed in meeting educational needs in critical care are applicable to your country?

a) Similarities with all countries rated.
b) Yes.
c) Yes.
d) Yes, but more detailed structuring is certainly needed.
e) Yes.
f) Yes.
g) Moderate extent.
h) Yes.
i) Yes.
j) Yes.

k) Very much so.
l) Yes, at a leadership role.
m) Yes, I think my country needs a lot of support in order to develop critical care and improve patient safety.
n) Yes.
o) Most of them will be very important and applicable.

6. What type of follow-up action would your recommend following this steering committee meeting?

a) Website development; publish input; regular steering committee meetings.
b) Internet site; report; pictures to all participants.
c) Regular meetings; website development.
d) Web; next meetings.
e) Mailing summary; setting next steps.
f) Keep in touch; be compromised; spread the main aims of the project.
g) Important to maintain continuity and momentum to obtain concrete results.
h) Network feedback until next meeting.
i) Report back of own initiatives and actions.
j) Continuous communication about the project.
k) A report from each member to his/her own professional body or working group; a meeting to follow on with very defined goals.
l) Communication between countries; begin the though process for the second meeting.
m) Exchange information among the participants, recording each action that someone has done in respective country; review the main objectives from action done.
n) Arrange for meeting of steering group again; need contact list with e-mails, etc.
o) Follow-up meeting with agenda, and global networking of critical care people is very important.

7. How would you rate the importance of this type of initiative (A Critical Care Centre of Excellence) in Critical Care or your practice?

a) Very important for collaboration.
b) Reasonably high.
c) Very important.
d) It could rescue our discipline.
e) 5
f) Maximum.
g) Very important.
h) An excellent idea.
i) 5
j) Very important.
k) Very high.
l) 5
m) Very important because you can get valuable information which could change our practice.
n) Very important.
o) It would be a great way to benchmark our practices with other centres around the world.

8. How would this type of program improve and encourage best practices in Critical Care?

a) Already learnt a lot about mechanisms in other countries and important issues.
b) By providing tools to leaders.

c) Create Centres of Excellence that others will want to learn from.
d) Properly managed, it's got great potential to reach exactly this.
e) It may really improve the practice when widely spreads out.
f) If we can find how to reach the practical field this program will be a blockbuster.
g) Provides a breadth/width of experience for many countries – possible inspiration that we are all trying and "fulfilling" together, deliverable goals.
h) Increasing knowledge, motivation and skills and better self and quality control.
i) Website; internet communication.
j) If we reach the objectives, I think a lot.
k) Exposure; recognition; comparison; change; assessment and feedback.
l) Leadership skills are the most lacking in ICU. From this will flow improvement.
m) Providing the best evidence which do change the practice. Showing the best markers to evaluate quality in ICU.
n) Spread information; possible motivation for change.
o) Yes, immensely help our practice.

9. What is your overall ranking of this meeting (1= poor, 5 = excellent)?

a) 5
b) 5
c) 5
d) 5
e) 5
f) 5
g) 5
h) 5
i) 5
j) 5
k) 4
l) 5
m) 5
n) 5
o) 5

10. Please provide any additional comments.

a)
b)
c)
d) Each member of this committee should strive to reach the overall goal in each country, not only his or her own country.
e)
f) To thank the wonderful idea of the faculty to reach different countries, helping to improve critical care.
g) Concrete examples of excellence are very useful; more than one centre's experience usually provides for more perspective; actual data important.
h) Please circulate e-mails of everyone.
i)
j) Congratulations. Is a great idea. I am excited to be here and participate in the project.
k) Useful information prior to meeting: clothes needed and activities anticipated.
l) I would like CV's of all involved – it would be nice to know where they fit into critical care in their own countries, as well as skills and research performed, etc.
m) Thank you for the unique opportunity.
n) Would like the opportunity to teach fellows/junior staff on how o run simulation program; maybe have Randy Wax come to our country to help organize simulation.

o) This meeting gave me the opportunity to think about and experience other views from top intensivists from around the world. It will give me a chance to expand my view of critical care.

The Event Coordination

1. Were you satisfied with the transportation arrangements that were made for you? If not, please explain.

a) Excellent.
b) Yes.
c) Yes.
d) Yes, thank you.
e) Yes.
f) Excellent.
g) Yes.
h) Yes.
i) Yes.
j) Yes.
k) Yes.
l) Yes.
m) Yes.
n) Yes.
o) No. Some mix up of my schedule was done due to miscommunication. But the fixing of the schedule was done.

2. Were you satisfied with the accommodation arrangements that were made for you? If not, please explain.

a) Excellent.
b) Superb.
c) Yes.
d) Yes.
e) Yes, really exclusive.
f) Impressive.
g) Yes.
h) Yes.
i) Yes.
j) Yes.
k) Yes.
l) Yes.
m) Yes.
n) Yes, great room.
o) Yes.

3. Were you satisfied with the social events that were arranged for you? If not, please explain.

a) Excellent.
b) Reasonable.
c) Yes.
d) Yes, and thank you for my late and special taxi to our dinner on the 31st.
e) Perfect.
f) Yes.

g) More chance to interact as a group socially apart from ____. Climbing wall is not a bad idea!
h) Yes.
i) Yes.
j) Yes.
k) Yes.
l) Yes.
m) Yes.
n) Yes.
o) Yes.

4. Overall, how would you rate your experience at the meeting resort? (1=poor, 5= excellent)

a) 5
b) 5
c) 5
d) 5
e) 5
f) 5
g) 4
h) 5
i) 5
j) 5
k) 5+
l) 5
m) 5
n) 5
o) 5

5. Please provide any additional comments.

a) Next time set outside temperature up 10 degrees F.
b)
c) Excellent.
d) Don't stop, and thank you.
e)
f) Keep going on. We all together will be able to build great things.
g) Great position is an attraction.
h)
i)
j)
k) Do it again.
l)
m) Congratulations!
n) Great job!
o) Thank you for organizing/reorganizing my plane schedule.