

**Report**  
**International Forum**  
**Improving patient recovery following a critical illness**

**Wednesday 29 October 2008**

**9am – 1pm**

**University of Technology, Sydney**

**Level 6, Building 10, Jones St ULTIMO**

**HR Training Room (10.6.440)**

The Forum was scheduled as an informal satellite meeting prior to the Asia Pacific Critical Care 2008 Congress, held in Sydney Australia on 30 October – 2 November 2008 (and incorporating the 33<sup>rd</sup> Australian and New Zealand Annual Scientific Meeting on Intensive Care).

**Purpose**

This Forum provided an informal opportunity for researchers with a mutual interest in improving patient recovery following a critical illness to:

1. Reflect on current relevant international and Australasian research
2. Discuss research 'in-progress', including pragmatic methodological issues
3. Learn from each others' experiences in a collegial and shared space
4. Develop plans for future collaborative research projects
5. provide a forum to link with our like-minded European and North American colleagues

**Post-Critical Illness Research Collaboration meetings:**

- 17 May 2008: North America '*Physical Rehabilitation in the Critically Ill*', 1st meeting, Toronto Canada (pre-ATS Conference) – Dale Needham, Convenor; 26 attendees from US, Canada & UK
- 23 May 08: Europe '*Neuropsychological Complications of Critical Care*', 1st meeting, London – Nick Hart, Convenor; 15 attendees (8 apologies) from UK, France & Switzerland
- 29 October 2008: Australasia '*Improving patient recovery following a critical illness*', 1st meeting, Sydney – Doug Elliott, Convenor:

## Forum Agenda

Time	Presenter	Topic
08.45	-	Arrival / Coffee & Tea
09.00 – 9.30	Doug Elliott	Welcome / Introductions / Overview
9.30 – 10.00	Dale Needham	Broad international perspectives
10.00 – 10.20	Linda Denehy	Intensive exercise rehabilitation, commencing in ICU, to ward, to an 8 week OP program
10.20 – 10.40	Doug Elliott	8-week home-based rehabilitation program – methodological issues
10.40 – 11.00	-	Morning tea
11.00 – 11.20	All participants	Group discussion of methodological issues, post-ICU rehabilitation
11.20 – 11.40	Dale Needham	In ICU mobility programs – initial experiences from North America
11.40 – 12.00	Steve Webb	CTG plans, proposed WAICORN f/u study, early rehab study RPH
12.00 – 13.00	Doug Elliott / all participants	Group discussion of future plans, projects, collaborations
13.00 – 13.30		Light Lunch

## Forum Attendees

Name	Organisation	E-mail
Leanne Aitken	Professor, Critical Care Nursing Griffith University & Princess Alexandra	<a href="mailto:l.aitken@griffith.edu.au">l.aitken@griffith.edu.au</a>

	Hospital, Qld	
Jenny Alison	A/Professor, Physiotherapy, University of Sydney, NSW	<a href="mailto:J.Alison@usyd.edu.au">J.Alison@usyd.edu.au</a>
Sue Berney	Senior ICU Physiotherapist Austin Health, Vic	<a href="mailto:Sue.BERNEY@austin.org.au">Sue.BERNEY@austin.org.au</a>
Wendy Chaseling	Physiotherapist, ICU, St George Hospital, NSW	<a href="mailto:Wendy.Chaseling@SESAHS.HEALTH.NSW.GOV.AU">Wendy.Chaseling@SESAHS.HEALTH.NSW.GOV.AU</a>
Linda Denehy	Senior Lecturer, School of Physiotherapy, University of Melbourne, Vic	<a href="mailto:ldenehy@unimelb.edu.au">ldenehy@unimelb.edu.au</a>
Nicholas Edwards	Clinical Nurse Consultant, ICU, St George Hospital, NSW	<a href="mailto:Nicholas.Edwards@SESAHS.HEALTH.NSW.GOV.AU">Nicholas.Edwards@SESAHS.HEALTH.NSW.GOV.AU</a>
Doug Elliott	Professor of Nursing, Faculty of Nursing, Midwifery & Health, UTS	<a href="mailto:Doug.Elliott@uts.edu.au">Doug.Elliott@uts.edu.au</a>
Gavin Leslie	Associate Professor, School of Nursing & Midwifery Curtin University, WA	<a href="mailto:G.Leslie@curtin.edu.au">G.Leslie@curtin.edu.au</a>
Sharon McKinley	Professor, Critical Care Nursing Faculty of Nursing, Midwifery & Health, UTS & Royal North Shore Hospital, NSW	<a href="mailto:Sharon.McKinley@uts.edu.au">Sharon.McKinley@uts.edu.au</a>
Dale Needham	Assistant Professor, Division of Pulmonary & Critical Care Medicine, Johns Hopkins University, USA	<a href="mailto:dneedha2@jhmi.edu">dneedha2@jhmi.edu</a>
Linda Parker	Physiotherapist; Sydney 'trainer', Home-rehabilitation study	<a href="mailto:ljp@swiftdsl.com.au">ljp@swiftdsl.com.au</a>
Shane Patman	Senior Lecturer, Physiotherapy School of Health Sciences University of Notre Dame, WA	<a href="mailto:spatman1@nd.edu.au">spatman1@nd.edu.au</a>
Dorrielyn Rajbhandari	Research Nurse. ICU, Royal Prince Alfred Hospital, NSW Honorary Associate, NMH, UTS	<a href="mailto:dorrielyn.rajbhandari@email.cs.nsw.gov.au">dorrielyn.rajbhandari@email.cs.nsw.gov.au</a>

Penny Taylor	Research Officer Home rehabilitation study	<a href="mailto:pen_taylor@msn.com">pen_taylor@msn.com</a>
Steve Webb	Intensivist, Royal Perth Hospital, WA Adjunct A/Prof. UWA	<a href="mailto:sarwebb@cyllene.uwa.edu.au">sarwebb@cyllene.uwa.edu.au</a>
Leonie Weisbrodt	Research Coordinator, ICU, Nepean Hospital, Penrith NSW	<a href="mailto:weisbrl@wahs.nsw.gov.au">weisbrl@wahs.nsw.gov.au</a>
Teresa Williams	School of Population Health, UWA & Division of Critical Care, Royal Perth Hospital, WA	<a href="mailto:Teresa.Williams@health.wa.gov.au">Teresa.Williams@health.wa.gov.au</a>

### Apologies

John Griffiths	Honorary Research Fellow John Radcliffe Hospital, UK	<a href="mailto:drjgriffiths@yahoo.co.uk">drjgriffiths@yahoo.co.uk</a>
Meg Harrold	Physiotherapist, Royal Perth Hospital, WA	<a href="mailto:harroldm@hotmail.com">harroldm@hotmail.com</a>
Brian Trethowan	Intensivist, Royal North Shore Hospital, NSW	<a href="mailto:briantrethowan@hotmail.com">briantrethowan@hotmail.com</a>

### Outcomes

from Group discussion / brainstorming:

Re-convene as a formal Satellite meeting to the next ASM, Perth WA, October 2009

Methodological issues in outcomes:

- Instruments
- Timing (within 1<sup>st</sup> 3 months)
- ICU LOS best inclusion criteria
- Bundle vs. single intervention?
- Maintaining blinding of assessor

Continue group discussions and sharing of information, as current research findings and information on new projects as they become available; e.g.:

- Home-based RCT (Elliott et al.)
- Rehabilitation from in-ICU to OPD RCT (Denehy & Berney et al.)
- Clinical Trials Group (CTG) strategy à observational work on process and outcomes
  - Australian Intensive Care Outcomes Research Network (AICORN); (Webb et al.)
- Other international work (e.g. Rubenfeld)

Methodological issues: were raised and discussed briefly, including:

- Binary end-point – ‘living functionally in the community?’
- Handling mortality cases – survival-adjusted causal effects
- Maintaining ‘blinded assessment’
- Assessment of muscle strength – options noted as:
  - Manual muscle testing (MMT)
  - handheld dynamometry (HHD)
  - handgrip (e.g. Ali NA, O'Brien, JM Jr., Hoffmann, SP, [et.al.](#) Acquired Weakness, Handgrip strength, and mortality in Critically Ill Patients Am. J. Respir. Crit. Care Med 2008 178: 261-268.)
  - peripheral quantitative CT;
  - EMG / ICU-acquired weakness – ICUAW (e.g. Hough CL, Steinberg KP, Taylor Thompson B, Rubenfeld GD, Hudson LD. Intensive care unit-acquired neuromyopathy and corticosteroids in survivors of persistent ARDS. Intensive Care Med. 2009;35(1):63-8. )
- Assessment of mobility
  - ‘physical activity for the elderly’ questionnaire (e.g. Washburn RA, Smith KW, Jette AM, Janney CA. The Physical Activity Scale for the Elderly (PASE): development and evaluation. J Clin Epidemiol 1993 Feb;46(2):153-62. )
  - Timed up and go
  - Accelerometer?

Broader audience for the evidence / information on post-critical illness sequelae

- Physiological and psychological status / deficits
- Known effects of ‘ICU care’ on patient outcomes

Implications for Practice

- Disease specific rehabilitation clinics?
  - Lack of understanding of post-CI effects (by GPs ...); need for more detailed, focused post-discharge letters?
- System and process re-design
- Culture & workforce environment
- Needs economic analysis

## Post-Forum Information

Dale Needham kindly provided some further details and resources following the Asia-Pacific Conference:

Hi all

In follow-up to our JAMA early mobility publication, attached is a MP3 audio file and the transcript of a Voice of America radio broadcast (part of their science & technology magazine program called "Our World") about our Early Mobility program in JHH MICU. (This was taken from:<http://www.voanews.com/english/science/ourworld.cfm>)

My interview is about 3.5 minutes long, with some nice promotion of the Critical Care PM&R program in the Hopkins MICU.

This is a NEW video about early rehab in ICU.

The link below shows a web page, including a 90 sec professional video. The video was produced for TV news stations by a non-profit science education company. The video is focused on the MOVER device created at JHH in collaboration with the JHU biomed engineering students. (The portable ventilator for this device has finally arrived at JHH, so we will start using the Tower portion of the MOVER very soon).

<http://www.aip.org/dbis/stories/2008/18110.html>

Just click on the "play" button for the video (see top right corner of the web page).

A "medical minute" was recently aired on ABC news (see link below), based on our systematic

review of PTSD after ICU ... done as part of our ICAP work.

<http://abcnews.go.com/video/playerIndex?id=5833772>

This is a very nice video and raises awareness about this problem and issues of recovery after critical illness. Take 1 minute and review the video if you are interested. The full news story is at this link: <http://abcnews.go.com/Health/Healthday/story?id=5824444&page=1>

Major congrats to our ICAP psychiatrists, Dimitry and Joe, and to Sanjay and Jeneen who are co-authors.[Dimitry moved from Hopkins to U Washington - this is why Hopkins was not named in the video]

Below is the link to the video that I showed you

<http://video.yahoo.com/watch/2190081/6932798>

Dale