

Drowning terminology: not what it used to be

With the New Zealand summer soon upon us, health professionals may be called upon to assist at the scene of a drowning incident. This letter seeks to update readers on current internationally accepted drowning terminology.

Drowning is a leading cause of unintentional injury resulting in death in New Zealand.¹ Despite a declining drowning toll (n = 98 in 2012), New Zealand's drowning rate is still higher than Australia (2.3 vs. 1.27 per 100,000), the United States and Great Britain. In 2012, 176 patients required hospitalisation (>24hrs) for drowning.²⁻⁴ On New Zealand beaches last year, surf lifeguards performed 1,645 rescues and almost 350,000 other safety interventions.⁵

In 2002, the World Congress on Drowning was held in the Netherlands. This meeting involved a wide range of experts in the fields of water safety, lifesaving, and resuscitation (both pre and in-hospital basic and advanced life support). Several taskforces were formed with the aim of developing an international consensus on a number of issues around the management of drowning.

Prior to this conference there was no real agreement on terminology between countries or organisations, making it difficult to interpret research or compare data. The first of the 13 major recommendations of this group was that there should be a single universal definition for drowning.

This recommendation was subsequently adopted by the International Liaison Committee on Resuscitation (ILCOR) and in 2003 a glossary of terms and definitions for a revised Utstein template, along with guidelines for the uniform reporting of data from drowning was published.⁶ Although endorsed by the World Health Organisation in 2005, this terminology has yet to be fully adopted by all health professionals, academics, researchers, those working in the aquatic safety field and mainstream media.⁷⁻¹⁰

Current (accepted) terminology	
Drowning	Drowning is the process of experiencing respiratory impairment from submersion or immersion in liquid.
Non-fatal drowning	Survival after drowning. This is further classified as non-fatal drowning with morbidity or no morbidity.
Fatal drowning	Death due to drowning.
Other (accepted) terminology	
Submersion	The whole body is under water.
Immersion	Part of the body is covered in water (for drowning to occur the face and airway would have to be immersed).
Witnessed	Drowning episode is observed from the onset of immersion or submersion.
Unwitnessed	Victim found in water, no-one saw the event.

Old (abandoned) terminology	
Dry and wet drowning	<i>As all drownings occur in liquid, they are by definition wet. It is impossible to tell at the scene whether water has been aspirated into the lungs (and in most drowning incidents it has anyway); these terms are redundant.</i>
Active or passive drowning	<i>Replaced by Witnessed or Unwitnessed.</i>
Secondary drowning	<i>Used previously to describe both the events precipitating a drowning episode and the development of post drowning effects on the lung. Now descriptions of such events are to be explicit and this term has become redundant.</i>
Near-drowning	<i>This term has been used for both survivors of drowning and for those that died at some point in time after initial resuscitation was successful, creating confusion. This term should not be used as people either survive the drowning episode or they do not (see above). The international drowning prevention community have regarded this term as obsolete for over 10 years since drowning was defined as a process rather than a product. Just as you wouldn't say someone had a 'near-asthma attack', so too with drowning.</i>

Implications for clinical practice/recommendations—As healthcare professionals we have a responsibility to promote the use of internationally agreed terminology to the public, in our practice, in medical reports and through the media. Part of this is demonstrating that we are up to date with current international thinking. This will also help to improve the quality of the data we are able to collect about drowning and our ability to contribute to improvements in resuscitation techniques through research. We strongly encourage all healthcare professionals to start using the current terminology.

Peter Jones

Director of Emergency Medicine Research
Adult Emergency Department, Auckland City Hospital
Auckland, New Zealand

Kevin Moran

Principal Lecturer in Health and Physical Education
Faculty of Education, The University of Auckland
Auckland, New Zealand
k.moran@auckland.ac.nz

Jonathon Webber

Honorary Senior Clinical Tutor
Department of Anaesthesiology, The University of Auckland
Auckland, New Zealand

References:

1. University of Otago IPRU. Causes of injury by age [Fact sheet 42]. 2009. Cited 12/11/13. Available from: <https://blogs.otago.ac.nz/ipru/publications/fact-sheets>
2. Water Safety New Zealand. Report on drowning 2012. Wellington: Water Safety New Zealand; 2013.
3. Royal Life Saving Society Australia. National Drowning Report. 2013. Cited 12/11/13. Available from: <http://www.royallifesaving.com.au/facts-and-figures/research-and-reports/drowning-reports>

4. International Life Saving Federation. World Drowning Report. *Int J Aquat Res Educ* 2007;1:381–401.
5. Surf Life Saving New Zealand. Annual Report 2012/13. Cited 11/11/2013. Available from: <http://www.surflifesaving.org.nz/organisation/about-us/annual-reports/>
6. ILCOR Advisory Statement. Recommended Guidelines for Uniform Reporting of Data From Drowning: The “Utstein Style”. *Resuscitation* 2003;59:45–57.
7. Van Beeck EF, Branch CM, Szpilman D, Modell JH, Bierens JJLM. A new definition of drowning: towards documentation and prevention of a global health problem. *Bulletin of the World Health Organization* 2005;83:853–856. Cited 12/11/13. Available from: <http://www.who.int/bulletin/volumes/83/11/vanbeeck1105abstract/en/>
8. New Zealand Herald. 2013. Cited 12/11/13. Available from: <http://www.nzherald.co.nz/near2ddrowning/search/results.cfm?kw1=neardrowning&kw2=&st=gsa>
9. Langley J. New Zealand Injury Prevention Strategy: significant shortcomings after 5 years. *N Z Med J* 2010;123(1327). <http://journal.nzma.org.nz/journal/123-1327/4466/content.pdf>
10. Al-Shaqsi S. Better be prepared than sorry: what should the New Zealand healthcare system learn from the 2009 Pacific Tsunami? *N Z Med J* 2011;124(1333). <http://journal.nzma.org.nz/journal/124-1333/4632/content.pdf>