



World Water Safety

## **INTERNATIONAL LIFE SAVING FEDERATION**

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### **MEDICAL POSITION STATEMENT - MPS 06**

## **WHO NEEDS FURTHER MEDICAL HELP AFTER RESCUE FROM THE WATER**

**NOTE:** This statement is intended for those lifeguards, acting in a professional or volunteer capacity, who are trained in the techniques of water rescue and resuscitation and who assume a duty to safeguard members of the public at aquatic sites. They may be called lifeguards, lifesavers or both. This statement is not directed at members of the public trained in water safety and rescue techniques, but without a duty to respond, who may also be known, in some areas of the world, as lifesavers.

### **1. BACKGROUND**

At its meeting in April, 2000, the Medical Commission considered the need for lifeguards, following rescue of persons from the water, to make decisions on which persons should be sent to hospital or advised to seek further medical advice. In some instances, in which victims are clearly displaying severe symptoms, the decision will need little thought. But when victims are displaying mild to moderate symptoms, and may be improving with treatment, there is some evidence that can be used to help formulate a proper treatment and disposition plan. This statement was revised following the Medical Commission meeting in Penang, Malaysia in 2016 to reflect the most recent state of evidence.

### **2. INTRODUCTION**

Lifeguards are the front line in prevention of drowning and rescue of citizens in difficulty in the water. Resuscitation may not be necessary after every rescue, but the lifeguard must decide whether the victim should be transported to the hospital or if medical follow-up is necessary or advisable. This Statement provides guidelines for the assistance of Lifeguards.

### **3. EVALUATION OF THE EVIDENCE**

Most of the evidence available to guide the decision of whether or not to release a drowning victim from the scene is of low to moderate quality. The primary studies

used to develop this statement were retrospective in nature. One study analysed a large database of open water rescues in Brazil and correlated initial physical exam findings with mortality to develop a classification system.<sup>1</sup> The next study was a small study of pediatric and young adult victims released from the scene following rescues from the ocean, with follow up data collected by phone interview.<sup>2</sup> The final two studies analysed paediatric drowning victims admitted to the hospital to determine outcome associated with initial symptoms and time points at which any drowning victims decompensated.<sup>3,4</sup> Given the paucity of high quality data on this subject, the consensus opinion of the Medical Commission was taken into consideration to develop the following statement.

#### 4. STATEMENT

(a) Any victim meeting any of the following criteria should be sent to hospital:

- Loss of consciousness even for a brief period
- Confused or has an altered level of mentation
- Requires rescue breathing, mouth to mouth, positive pressure ventilation, bag-mask ventilations, or supplemental oxygenation
- Requires cardiopulmonary resuscitation
- An underlying medical condition is suspected or exacerbated:
  - Heart attack, asthma, stroke, epilepsy, or intoxication
- Suspected traumatic conditions such as spinal injury or orthopaedic injury requiring further care
- Other
  - Low oxygen saturation (Hypoxemia)
  - Abnormal lung sounds
  - Low or lowered blood pressure (Hypotension)
  - Continued chest pain or shortness of breath despite rest and treatment
  - History and symptoms concerning for cardiac ischemia

(b) The following victims may be considered for release from care at the scene if, after 10-15 minutes of careful observation, while being warmed with blankets or other coverings as required, the victim has ALL of the following:

- No cough
- Normal breathing, including normal rate
- Normal oxygen saturation (if available)
- Normal circulation as measured by pulse in strength and rate and blood pressure (if available)
- Normal colour and skin perfusion
- Normal lung auscultation (if available)
- No shivering
- Is fully conscious, awake and alert

If ALL of these conditions are not met, or if the lifeguard has any doubts, then the victim should be advised to seek immediate medical attention.

(c) While the drowning process starts with the initial submersion, the full extent of injury may not be apparent for some time. There is evidence that a minority of drowning victims displaying little or no symptoms initially may become symptomatic. This usually occurred within 4 hours, with a few cases extending out to 8 hours. All drowning victims should therefore be warned that if they later develop cough, breathlessness, fever or any other worrying symptom, they should seek medical advice immediately. It is preferable that these victims are released to

the care of an attentive person, with instructions to observe for symptom development.

## LEVEL OF EVIDENCE

This document is based on expert consensus.

## POTENTIAL CONFLICT OF INTEREST STATEMENT

None of the participants in the consensus process leading to this position statement has a conflict of interest with the stakeholder industry, technology, persons or organisations that are identified and/or impacted by the position statement.

## REFERENCES

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