



World Water Safety

INTERNATIONAL LIFE SAVING FEDERATION

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MEDICAL POSITION STATEMENT - MPS 03

COMMUNICABLE DISEASES

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.

BACKGROUND

Lifeguards have always been aware of the need for basic hygiene in providing first aid, but several events over the past 40 years have greatly increased the risks of cross infection both to and from the lifeguard.

- Rescue breathing was introduced in most lifeguard services in about 1960.
- External CPR followed within a year or so.
- The use of training manikins subsequently became very popular and most training programs now require demonstration of proficiency using a manikin.
- Oxygen is now widely used and the equipment used requires decontamination.
- The description of the Acquired Immunodeficiency Syndrome in 1981 in the New England Journal of Medicine hastened community and medical awareness of the need for emphasis on prevention of cross infection.
- Hepatitis B and C have become increasingly common and are now of very significant proportions. These diseases are also much more readily spread than HIV.
- Research has clarified the modes of transmission of these and other viruses.
- Some lifeguards themselves may be carriers of potentially communicable diseases. In some cases, they may be aware and in others, unaware.

There is limited data available to provide guidance on the relative risk to rescuers of acquiring a communicable disease when providing first aid or CPR. It must however

be noted that the risk of a rescuer acquiring HIV during a resuscitation is incredibly low, being dependent on the patient having the virus and their blood mixing with the rescuer's during the resuscitation. Transmission of a blood-borne virus via saliva is unusual. A systematic review of the literature by Mejicano and Maki in 1998 found no reports of Hepatitis B or C being contracted by a rescuer. There were only three cases of HIV transmission identified, all relating to high risk situations involving health professionals in hospital settings, where the health professional had chapped or broken skin, and was heavily exposed to the patient's contaminated blood.

The risk of seroconversion in a rescuer providing CPR has been calculated by Bierens and Berden (1996) to be less than one per billion resuscitations. There are also reports of transmission of less serious infections such as coldsores, meningococcal meningitis, cutaneous tuberculosis, shigella, impetigo, respiratory tract infections, and gastrointestinal infections. These less serious infections can spread easily in training situations with manikins, especially if there has been inadequate decontamination of equipment.

Current protections available for lifeguards and their patients include:

- Simple barrier protection including gloves and ventilation barriers. Faceshields have been shown to reduce bacterial transmission in the laboratory setting. There have been no studies assessing the effectiveness of faceshields in actual resuscitation however.
- A vaccine suitable for mass immunisation against Hepatitis B became available in the late 1980's and has proven both safe and effective.
- The Centres for Disease Control and Prevention in Atlanta and most health agencies throughout the world now have formulated detailed policies for Health Care Workers. These policies are under continual review and are regularly updated.
- Lifeguards who are involved in rescue, resuscitation and first aid must use the same infection control guidelines as persons regarded as "Health Care Workers."

STATEMENT

While recognising the diverse cultural, religious, political, financial, legal and other considerations from country to country, the Medical Committee notes certain fundamentals, which can be stated.

1. Lifeguards are comparable to Health Care Workers in having responsibility for and public expectation of professional standards in the administration of rescue, resuscitation and emergency medical aid.
2. All lifeguard organisations should have current comprehensive policies on infection control relevant to their areas of responsibility in their own country. This policy should conform to international standards and should be endorsed by a qualified medical authority.

3. The Committee strongly endorses the principle of universal body substance precautions as the ideal standard and this should be incorporated in the policies mentioned in paragraph #2 (above). These require all lifeguards to assume that the blood and body substances of every person rescued or treated must be considered as potentially infective, independent of diagnosis or perceived risk. Universal body substance precautions should be used consistently when lifeguards are in contact with mucous membranes, broken skin and body substances including blood, urine, sputum, saliva and wound drainage. Of all body fluids, blood is by far the most infective and therefore most dangerous.
4. All lifeguards should receive comprehensive instruction on relevant aspects of cross infection.
5. Whenever possible, masks and gloves should be available for use in first aid and resuscitation.
6. CPR training should be performed on disposable or properly decontaminated training aids and equipment including manikins and ventilation barriers to help reduce the spread of common viruses amongst lifeguards during training.
7. Decontamination of manikin parts and oxygen delivery equipment must be carried out according to the recommendations of the manufacturer or the responsible lifeguard authority.
8. Lifeguards who are acutely ill with potentially contagious acute illnesses such as respiratory tract infections, cold sores, and gastrointestinal infections, should not actively participate in CPR training until the infection has passed, to protect their colleagues.
9. It is strongly advised that all lifeguards are immunised against Hepatitis B, whether there is legislation in their country or not. At present, there is no vaccine available for Hepatitis C. Hepatitis A is a different disorder and immunisation should be considered for lifeguards in areas where the disorder is endemic or when travelling to such areas.
10. Lifeguards should be informed of their obligations and legal position should they know that they are carriers of a communicable disorder. This will vary from country to country and in some nations, from state to state. Furthermore, lifeguard organisations must be aware of their own legal position in the event of being informed that a lifeguard is a carrier of a communicable disease. National bodies should be able to provide specific guidance on individual diseases.
11. Any accidental exposure to body substances should be reported immediately to the supervising lifeguard unit (according to local protocol) so that appropriate action can be taken. Depending on the nature of the exposure, and the local standard operating procedures applicable, this may include attendance of the lifeguard at a healthcare facility for further medical management and reporting of the incident to the appropriate agencies.”

12. In particular, accidental needle stick injuries whether to a lifeguard or member of the public must be referred for urgent expert medical attention.
13. The Centres for Disease Control and Prevention (CDC) in Atlanta, Georgia USA is recognised by the ILS Medical Committee and most health authorities internationally as being at the forefront of information and recommendations on infection control. The website for the CDC is: <http://www.cdc.gov>. At the time this statement was published, the specific address of CDC information on Universal Precautions for Prevention of Transmission of HIV and other blood borne infections was:
<http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html>

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

- All information from the Centres for Disease Control and Prevention is highly recommended as totally reputable and up to date.
- Communicable Disease Policy of Royal Lifesaving Society Australia
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- Mejicano, G.C. & Maki, D.G. Infections acquired during cardiopulmonary resuscitation: estimating the risk and defining strategies for prevention. *Ann Intern Med*. 1998; 129: 813-828.

APPROVAL

Policy Statement approved by the ILS Board of Directors on 15/09/1999 and 03/09/2016.