1. Prevent Drowning

It has been estimated that most deaths by drowning are preventable. The ability to avoid a drowning contrasts with the high rates of poor outcomes following these type of incidents. Drowning requires multiple layers of protection. To be effective, drowning prevention must be used by individuals near, on or around the water, and those who supervise or care for others in aquatic settings.

Recommended Actions

- Stay within arm’s reach of children when in or near the water.
- Swim where there are certified National Lifeguards.
- Fence pools, spas and other aquatic locations with 4-sided fencing.
- Always wear a lifejacket when using watercraft (e.g. boat, kayak etc.)
- Complete Swim to Survive skills.

2. Recognize Distress – call for help

The first challenge is to recognize a person in distress in the water and know how to act safely, and to activate the lifeguard, rescue and emergency medical services (EMS) if possible and available. A person struggling and about to drown cannot usually call for help.

Recognizable elements of a person at high risk of drowning include: Near vertical body position, ineffective downward arm movements, ineffective pedalling or kicking leg action, and little or no forward progress in water.

Sending someone to call for help upon recognizing a person in distress is a key element in the drowning chain of survival. Delays in activating EMS/rescue services increases the risk of fatal drowning.

Recommended Actions

- Recognise early drowning person in distress signs. Persons may not wave or call for help.
- Tell someone to call for help while staying on-scene to provide assistance.
- Watch where the person is in the water, or ask a bystander to keep constant watch.
3. Provide Flotation – to prevent submersion

After recognizing a person is in distress and asking someone to call for help, the next priority is to interrupt the drowning process by providing flotation to the person. Providing flotation is a strategy to buy valuable time for emergency services to arrive, or for those at the scene to plan rescue efforts. Most rescuers tend to focus on the goal of getting the person out of the water even if there is a high threat to life/rescuer safety. Devices such as lifebuoys (ring-buoys) are purpose-designed to provide flotation. However, they are not always available at the scene of a drowning incident. Therefore, improvised buoyancy aids such as empty plastic bottles/containers, body boards, surfboards, driftwood, icebox, or a football could be used. It is critical that rescuers take precautions not to become distressed themselves by engaging in inappropriate or dangerous behaviour. Given the number of bystanders who drown while attempting to rescue others, reaching out with, throwing, or dropping the buoyancy aid without entering the water is the safest course of action.

**Recommended Actions**

- While helping others:
  - Stay out of the water to reduce risk.
  - Throw something that floats to the person.
- To help yourself:
  - If you are in difficulty, don’t panic; stay with any flotation you may have.
  - Signal for help as soon as and if possible, and float.

4. Remove from Water – only if safe to do so

Removing the person from the water is essential in order to provide a definitive end to the drowning process. Several strategies for removal can be used: Assist the person to get out of the water by giving directions, i.e. pointing out the closest and safest place to get out. Attempt to remove the person without fully entering the water by utilizing rescue techniques such as, reaching, throwing and wading out with equipment; if all else fails, the rescuer may then consider entering the water if it is safe to do so. The entry of an untrained person into the water to rescue someone is extremely dangerous and is not recommended. In order to mitigate the risk during a rescue, a rescuer must bring a source of flotation to assist the person.

**Recommended Actions**

- If not breathing, initiate CPR starting with two respirations.
- Consider the use of oxygen and an automated external defibrillator (AED) as soon as possible if trained and available.
- If breathing, stay with person until help arrives.
- Seek medical aid if any symptoms are present, and for all persons who require resuscitation.

5. Provide Care as Needed – Seek medical attention

Basic life support for drowning persons is unique due to the dangerous environment which may pose some difficulties in providing care before, during or after the rescue process. The need for, and initiation of basic life support may occur while the person is still in water if the rescuer is trained and can provide in-water resuscitation safely. If not interrupted, the drowning process leads to apnea followed by cardiac arrest within minutes. Any attempt to immobilize the spine will impede rescue, and more importantly delay resuscitation. Therefore, attempts to immobilize the spine should only be made where there is strong evidence of cervical spine injury (transporting and positioning drowning persons may also require specialised adaptations).

Cardiopulmonary Resuscitation (CPR) is needed when the heart stops following a period of apnea. Initial ventilations may be ineffective in drowning due to the presence of water in the upper airway. Airway management is always challenging due to vomiting/regurgitation and the fluid that is commonly present in the upper airway. Also unique to drowning is that the most common rhythm in cardiac arrest following drowning is asystole; which an AED will not shock.

As soon as the person is removed from the water, rescuers must recognize the drowning severity especially if there is a life-threatening situation so immediate care can be provided. As the majority of people with mild distress may not actually aspirate water it is important to educate rescuers when to call the ambulance or seek medical assistance/hospital care.

**Recommended Actions**

- Assist the person on how to self-rescue by giving them directions for getting out of the water.
- Try to remove the person without entering the water.
- Only if safe to do so, rescue the person using any flotation available.

Reference: International Lifesaving Federation Medical Position Statement - MPS 19 - Drowning Chain of Survival (September 2014)