

## 7-YEAR REVIEW OF AIR AMBULANCE TRANSFERS TO THE VICTORIAN ADULT BURN SERVICE

Air ambulances were introduced into Victoria in 1962. They provide rapid transfer of critically ill patients to specialist medical services. Fixed-wing aircraft are used over longer distances between medical facilities. Helicopter transfer direct from the scene of injury has increased and now involves approximately half of Victorian adult burn admissions.

Aeromedical transport has been shown to be a safe and efficient mode of transport for critical care patients, including burn patients. In-flight physiological challenges include changes in temperature, partial pressures of oxygen and barometric pressures. Environmental challenges such as loud, turbulent and confined workspaces can also disrupt care. Common flight concerns specific to burn care include airway security, establishing IV access and maintaining adequate resuscitation, managing haemodynamic instability and preventing hypothermia. Despite this, aeromedical transportation of burn patients in Victoria is safe and well tolerated, with few reported in-flight complications.

Some authors reported that air evacuation was not necessary in 80% of trauma patients transported to their institution by helicopter. Pressure on healthcare providers to demonstrate use of helicopter ambulances and over-estimation of injury severity were possible explanations. Accurate thermal injury assessment requires experience and TBSA is often over-estimated. Over-triage can subsequently influence transport decisions for burn patients.

We found that burn patients transported by air had injury involving the head and neck, higher estimated TBSA, and documented concern regarding inhalational injury. Estimated TBSA varied between pre-hospital and burn care teams. Helicopter transfer of patients with minor burn injury suggests the need for further education on burn injury assessment.