A RETROSPECTIVE REVIEW OF PATIENTS TRANSFERRED FOR ADMISSION UNDER THE TERTIARY TOXICOLOGY SERVICE OF SIR CHARLES GAIRDNER HOSPITAL EMERGENCY DEPARTMENT IN PERTH WESTERN AUSTRALIA

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Objectives: Tertiary hospital services in Western Australia, including dialysis and advanced cardiac support, are available only in Perth. This poses several challenges in caring for poisoned patients in rural and remote communities. We did a retrospective cohort study of patients transferred under the Toxicology Service at our hospital over 3 years between 2012 and 2014. The study aims to analyse the reasons for patient transfer and also what complications occurred during retrieval. The outcomes and dispositions of these patients were also examined.

Methods: We collected demographic patient data from the ICU Database. Patient notes were then reviewed to complete the data collection. This included copies of notes from referring hospitals, ICU medical notes and charts. Information regarding the retrieval of these patients and complications occurring prior to arrival at our ICU were collected from St John Ambulance sheets and Royal Flying Doctor Service (RFDS) notes that were found in the medical record. We excluded the patients where the notes were not accessible.

Results: There were 152 patients transferred to ICU at Sir Charles Gairdner Hospital under Toxicology over the three year period. Notes were available for review for 141 of those patients. Diagnosis was deliberate overdose 90.1%, recreational drug abuse 5%, accidental exposure 2.8%, accidental overdose 1.4% and drug interaction 0.7%. Of those transferred, 57% were retrieved by the Royal Flying Doctor Service and 43% arrived via St Johns Ambulance. The main complications during retrieval included hypotension, arrhythmias and hypothermia. Of those transferred 95% were intubated, 31.9% required inotropic support, 4.3% required dialysis and 0.7% received urinary alkalinisation. They had a mean length of stay in ICU of 2.6 days and had a mean time until medical clearance of 4 days. Disposition from ICU was Emergency Department observation ward with voluntary psychiatric review 65.9%, inpatient ward admission 15.2%, involuntary psychiatric admission 10.9%, ED observation ward discharge 7.2% and ICU direct discharge 0.7%.

Conclusions: This study highlights the indications for which toxicology patients were transferred to tertiary level care and also the complications that arise during their transfer of toxicology patients including their main complications whilst in ICU. By knowing the complications that can arise during transfer and definitive critical care we can better formulate our risk assessments for this group of patients.