There was no difference in stiffness between KH and STS hearts at the commencement of ischaemia ($p=0.23$) or the end ($p=0.74$).

There was no stiffness difference in hearts that did recover compared with those that did not, at the beginning ($p=0.877$) or end of ischaemia ($p=0.168$).

Conclusion: SWE demonstrates changes in stiffness over time in warm ischaemic hearts. This may be of use in assessing hearts donated after circulatory death. SWE could not discriminate on the basis of stiffness between preservation solution or functional recovery for cold ischaemic hearts.

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A Catchment the Size of Switzerland: Outcomes for Patients Presenting with out of Hospital Cardiac Arrest Remains a Challenge

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Introduction: In-hospital mortality (IHM) for cardiac arrest patients remains a challenge in our institution with a large catchment. Primary coronary intervention (PCI) continues to have poorer outcomes when patients present following cardiac arrest, in cardiogenic shock (CS) or receive cardiopulmonary resuscitation (CPR).

Method: We analysed all activations of the cardiac catheterisation laboratory in 2018. We assessed rates of IHM and 30 day MACE following PCI in relation to the following variables: in-hospital (IHCA) or out-of-hospital cardiac arrest (OHCA), shockable or non-shockable rhythms, intubation and cardiogenic shock. IHCA were classified as outside Canberra vs referral from peripheral hospitals.

Results: 203 consecutive activations were analysed. 76% were male with mean age 60.7 years. Females had a mean age of 69.4 years ($p<0.0001$). 110 (54%) activations occurred afterhours. 170 met STEMIM criteria; 30 OHCA, 18 IHCA and 12 in CS. 9 patients (4.4%) required intubation prior to PCI. 36 (17.7%) had a shockable rhythm and 33 (16.3%) received CPR.

The mortality rates of OHCA compared to IHCA were 26.7% vs 44.4%, respectively (OR 0.45, 95% CI 0.13 to 1.56, $p=0.21$). IHM rates were highest in patients receiving inotropes or intubation (42.9% and 39.1%). Mortality rates for females were higher than their male counterparts (15.0% vs 7.7%, OR 2.03, 95% CI 0.75 to 5.50, $p=0.23$).

Conclusion: Our institution’s IHM rates in OHCA are higher than IHCA likely from referral hospital delays to PCI and cardiogenic shock. IHM rates were highest in patients receiving inotropes or intubation.

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A Prospective 3-Year Review of out of Hospital Cardiac Arrest Presentations to a University-Affiliated Tertiary Centre

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Introduction: Outcomes for out of hospital cardiac arrest (OHCA) have traditionally thought to be poor. We sought to investigate current OHCA outcomes and interventions in a contemporary cohort of Emergency Department (ED) patients. Further, we set out to assess the cohort for cases that could benefit from extracorporeal membrane oxygenation (ECMO) using published ECMO cardiopulmonary resuscitation (CPR) eligibility criteria.

Methods: A prospective observational cohort study of all OHCA patients from 2016–2019 using Utstein reporting methods at a single tertiary centre. Data were collected on audit forms and then cross-checked against electronic medical records. Use of cardiac catheterisation was assessed and patients were retrospectively matched against eligibility criteria used by the Melbourne eCPR (CHEER) study.

Results: Between July 2016 and February 2019 there were 193,750 ED presentations and 251 OHCA cases. 3 cases were excluded after identification as ‘in-hospital’ arrests. Overall survival (30 days) was 23.4% ($n=58$). The mean age of survivors was 55.4 years. Proportion of bystander CPR was 70.2% ($n=174$). Initial shockable rhythms were reported in 38.7% ($n=96$). 72 OHCA patients were assessed to have met the CHEER study eligibility criteria, of these 32 did not survive to hospital discharge. 35 patients received percutaneous coronary intervention, of these 40 survived to hospital discharge.

Conclusion: The results reflect a higher than traditionally expected OHCA survival rate in a contemporary cohort of ED patients. Further studies are needed to identify where future local quality improvement strategies should be focused.


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A Review of Pulse Generator Battery Life Amongst Explanted Pulse Generators

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Introduction: Cardiac implantable electronic devices (CIED) are becoming increasingly common in Australia, with