

	Canada	United States	p
Select presenting demographics	(N=67)	(N=700)	
Enrolled in year 2021	78	70	0.183
Female	21	29	0.139
BMI	28 (25, 32)	28 (24, 33)	0.914
Diabetes mellitus	43	40	0.617
History of coronary artery disease	18	25	0.223
History of heart failure	6	14	0.064
Cardiogenic shock pre-PCI	7.5	13	0.191
Cardiac arrest pre-PCI	15	9.3	0.138
In-hospital MI	9	6.3	0.432
Reperfusion strategy	(N=61)	(N=566)	0.3
Medical therapy	13	21	
Primary PCI	75	69	0.039
Facilitated/rescue PCI	3.2	4.2	
CABG	0	1.8	
In-hospital outcomes	(N=67)	(N=700)	
Mortality	15	29	0.016
Stroke	0	1.6	0.612
Re-infarction	0	15	0.633
Composite of death, stroke and re-infarction	15	31	0.006

Saskatchewan Health Research Foundation

CANCARE Cardiac Critical Care Research Award Winner

P026 ARE BEST PRACTICE GUIDELINES INFORMING WITHDRAWAL OF LIFE SUSTAINING THERAPY FOLLOWED AFTER CARDIAC ARREST?

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BACKGROUND: Out-of-Hospital Cardiac Arrest (OHCA) is a leading cause of mortality worldwide. Amongst patients who achieve return of spontaneous circulation and are admitted to hospital, most will die from the effects of brain injury. Withdrawal of Life Sustaining Treatments (WLST) is the most common means of death, and current guidelines recommend WLST only after formal neuroprognostication, and after 72 hours. We aimed to determine the incidence and characteristics associated with WLST compared with no WLST in comatose patients following OHCA.

METHODS AND RESULTS: Patients admitted to hospital after non-traumatic OHCA between 2012-2019 who subsequently died were studied in a multicentred, retrospective cohort study across three Toronto academic hospitals. Data including baseline demographics, pre-existing medical comorbidities, in-hospital investigations and interventions, medical complications in hospital, goals of care discussions and mode of death were collected. WLST was defined as having documentation that medical interventions were withheld or discontinued (excluding formal declaration of brain death). Of the 130 included patients, 81 received WLST and 49 did not. Demographic and clinical characteristics are outlined in Table 1. Both groups were similar in terms of their pre-existing cardiac and non-cardiac comorbidities, although patients not receiving WLST had greater evidence of multiorgan failure and less often documented goals of care discussions. In those that received WLST, 82% of cases were due to concerns for poor neurologic prognosis with the

remainder due to non-neurologic related prognosis or previously expressed wishes regarding interventions. Nearly half of WLST (45%) were < 72 hours from presentation. In patients not receiving WLST, 37% had formal declaration of brain death and the remainder died of medical complications.

CONCLUSION: In this exploratory analysis, many comatose patients receive WLST due to concerns of poor neurologic prognosis without formal declaration of brain death and many of these cases occur < 72 hours. Physicians may over-estimate poor outcomes in this population.

Table 1: Baseline Demographics and Clinical Characteristics in Comatose Patients who Die Following OHCA

Characteristic	WLST (N=81)	No WLST (N=49)
Age	71 (59-81)	63 (54-73)
Male sex (n, %)	65 (80)	32 (65)
EMS Response Time (min)	5 (3)	6 (4)
Witnessed (n, %)		
Unwitnessed	26 (32)	14 (29)
Witnessed	51 (63)	19 (39)
Unknown	4 (5)	16 (33)
Initial Rhythm (n, %)		
VT/VF	13 (16)	8 (16)
PEA/asystole*	60 (74)	23 (47)
Unknown	7 (9)	18 (37)
Time to ROSC (min)	23 (17-30)	35 (24-52)
Initial laboratory values		
Cr	116 (92-150)	107 (91-145)
Lactate*	9.4 (6.2-12.7)	12.1 (10.3-15.2)
pH	6.97 (6.85-7.17)	6.86 (6.80-7.04)
STEMI on presenting ECG (n, %)	16 (20)	2 (4)
Presenting LVEF	45 (32-55)	50 (39-55)
TTM (n, %)*	50 (62)	19 (39)
Coronary Angiogram (n, %)	68 (84)	26 (53)
Culprit Lesion on Angiogram (n, %)	11 (14)	6 (12)
Goals of Care Discussion Documented (n, %)*	67 (83)	6 (12)
Hospital Length of Stay (days)	3 (1-11)	2 (1-6)

Abbreviations: WLST: Withdrawal of Life Supporting Treatment; EMS: Emergency Medical Services; ROSC: Return of Spontaneous Circulation; VT: Ventricular Tachycardia; VF: Ventricular Fibrillation; PEA: Pulseless Electrical Activity; Cr: Creatinine; STEMI: ST Elevation Myocardial Infarction; TTM: Targeted Temperature Management; LVEF: Left Ventricular Ejection Fraction. *p<0.05, all characteristics are represented by median (IQR).

P027 COMPARING DUAL ANTIPLATELET THERAPY STRATEGIES POST-ACUTE CORONARY SYNDROME: NETWORK META-ANALYSIS

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BACKGROUND: Various approaches to dual antiplatelet therapy (DAPT) management exist to balance thrombotic and bleeding risks following acute coronary syndrome (ACS). The aim of this study was to compare and rank different DAPT management strategies in patients with ACS with or without percutaneous coronary intervention (PCI).

METHODS AND RESULTS: We conducted a systematic review with network meta-analysis of randomized controlled trials (RCTs) comparing DAPT strategies in patients with ACS. We searched MEDLINE, Embase, and CENTRAL (2007-July 2021) for RCTs that enrolled patients with ACS (or PCI with outcomes reported separately for ACS subgroup) comparing ≥2 DAPT strategies, including comparisons between P2Y12 inhibitors, empiric P2Y12 inhibitor de-escalation (switching from prasugrel- or ticagrelor-based DAPT after 1 month to clopidogrel-based DAPT to complete 12 months DAPT duration), pharmacogenomic- or platelet-function testing-guided P2Y12 inhibitor selection, or short-duration DAPT (1-3 months of DAPT followed by P2Y12 inhibitor monotherapy) with intended follow-up ≥12 months. The primary