# 2014 Utstein OHCA Variables

## 2014 Utstein OHCA Variables

Population served
Cardiac arrests attended
Resuscitation attempted
Resuscitation not
attempted
System description

Dispatcher identified cardiac arrest Dispatcher CPR instructions Age
Gender
Witnessed arrest
Arrest location
Bystander CPR/AED
First monitored
rhythm
Etiology

Response times
Defibrillation time
Target temp control
Drugs
Reperfusion attempted

Survived event
Any ROSC
30-day survival /
survival to discharge
Neurological outcome

S DNAR legislation
U Termination of
P resuscitation rules
Dispatch software used
Resuscitation algorithms
L followed
E Data quality activities
M Prehospital ECG
Capability
N
T

Independent living Comorbidities Presence of STEMI Ventricular assist devices Cardioverterdefibrillator Airway control type
Number of shocks
Drug timings
CPR quality
Vascular access type
Mechanical CPR
Targeted oxygenation /
ventilation / BP
ECMO
IABP
pH, lactate, glucose
12-lead ECG
Neuroprognostication
Hospital type / volume

Transport to hospital
Treatment withdrawal
Cause of death
Organ donation
Patient reported
outcomes measures
Quality of life measures
12-month survival

Utstein 2014 OHCA Variables	PAROS Variables
System	
Population served*	х
Cardiac arrests attended*	х
Resuscitation attempted	✓
Resuscitation not attempted	✓
System description*	х
Dispatch	
Dispatcher identified cardiac arrest*	✓
Dispatcher provided CPR instructions*	✓
Patient	
Age	✓
Gender	✓
Witnessed arrest	✓
Arrest location	✓
Bystander response	
Bystander CPR	✓
Bystander AED	✓
First monitored rhythm	✓
Etiology	✓
Process	
Response times	✓
Defibrillation time (time call received to time first shock given)	✓
Targeted temperature control (TTC)*	✓
Drugs given	✓
Reperfusion attempted*	Х
Outcome	
Survived Event	✓
Any ROSC	✓
30 day survival or survival to discharge	✓
Neurological outcome	✓

✓ = variable available but with varying data options

<sup>\*</sup>denotes new variables

## Should PAROS adopt 2014 Utstein variables?

- Depends on whether each participating site is willing to change their data variables
- Dr Bryan McNally recommended not to change the variables for now as CARES will not be changing any of their variables
  - PAROS and CARES variables are currently standardized and aligned for collaboration in data analysis
- Changing any data variable will require a change in the ePAROS system platform and data reconciliation template -> time consuming

## **System Core Variables**

Utstein 2014 OHCA Variables	PAROS Variables
Population served*	Not available in CRF
Cardiac arrests attended*	Not available in CRF
Resuscitation attempted	Resuscitation attempted by
Resuscitation not attempted	EMS/Private ambulance
System description*	Not available in CRF

#### **Supplemental variables:**

- DNAR legislation\*
- Termination of resuscitation rules\*
- Dispatch software used\*
- Resuscitation algorithms followed\*
- Data quality activities\*
- Prehospital ECG capability\*

<sup>\*</sup>denotes new variables

## **Dispatch Core Variables**

Utstein 2014 OHCA Variables	PAROS Variables
	(in DA-CPR module)
Dispatcher identified cardiac arrest*	Did dispatch recognize need for CPR
Dispatcher provided CPR instructions*	CPR instructions started

<sup>\*</sup>denotes new variables

### **Patient Core Variables**

Uts	tein 2014 OHCA Variables	PAF	ROS Variables
Age		Age	
Gen	der	Gen	der
Wit	nessed arrest	Arre	est witnessed by
-	Bystander Witnessed	-	Not witnessed
-	EMS witnessed	-	EMS/private ambulance
-	Unwitnessed	-	Bystander – healthcare provider
-	Unknown	-	Bystander – lay person
		-	Bystander - family
Arre	est location	Loca	ation type
-	Home/residence	-	Home residence
-	Industrial/workplace	-	Industrial place
-	Sports/recreation event	-	Place of recreation
-	Street/highway	-	Street/highway
-	Public building	-	Public/Commercial building
-	Assisted living/nursing home	-	Nursing Home
-	Educational institution	-	Healthcare facility
-	Other	-	Transport center
-	Unspecified/Unknown/Not	-	In EMS/private ambulance
	recorded	-	Others, specify
Byst	tander CPR	Byst	ander CPR
-	Compression only	-	Yes
-	Compression and ventilations	-	No
-	No bystander CPR		
-	Unknown/ Not recorded		

Uts	tein 2014 OHCA Variables	PAROS Variables
Bys	tander AED	Bystander AED
-	AED used, shock delivered	- Yes
-	AED used, no shock delivered	- No
-	AED not used	
-	Unknown	
-	Not recorded	
Firs	t monitored rhythm	First arrest rhythm
Etic	ology	Cause of arrest
-	Medical (Presumed cardiac or	- Presumed cardiac
	unknown, other medical	- Respiratory
	etiologies)	- Electrocution
-	Traumatic cause	- Drowning
-	Drug overdose	- Trauma
-	Drowning	- Other
-	Electrocution	
-	Asphyxial (external cause)	
-	Not recorded	

#### **Supplemental variables:**

- Independent living\*
- Comorbidities\*
- Presence of STEMI\*
- Ventricular assist devices
- Cardioverter-defibrillator\*

<sup>\*</sup>denotes new variables

#### **Process Core Variables**

Ut	stein 2014 OHCA Variables	PAROS Variables
Res	sponse times	Time call received to time ambulance arrived at scene
Def	fibrillation time	Time call received to time of first shock
Tar	geted temperature control (TTC)*	In PAROS CRF:
-	Intra-arrest	Hypothermia therapy initiated (hospital level)
-	Post-ROSC prehospital	- Yes
-	Post-ROSC in-hospital	- No
-	TTC indicated but not done	In TTM module:
-	TTC not indicated	- Targeted temperature management induced? (Y/N)
-	Unknown/Not recorded	- Where was targeted temperature management initiated in hospital?
		(ED/ICU/Cath Lab)
		- Was Targeted Temperature Management (TTM) initiated in field?
		(Y/N)
Dru	ugs given	Drug administered at ED
-	Adrenaline	- Epinephrine
-	Amiodarone	- Lidocaine
-	Vasopressin	- Atropine
-	None given	- Amiodarone
-	Unknown/Not recorded	- Dextrose
		- Bicarbonate
		- Other
Rej	perfusion attempted*	Emergency PCI performed
-	Angiography only	- Yes
-	PCI	- No
-	Thrombolysis	
-	None	
-	Unknown/Not recorded	
Т	iming:	
-	Intra-arrest	
-	Within 24 h of ROSC	
-	>24 h but before discharge	
_	Unknown/Not recorded	

#### **Supplemental variables:**

- Prehospital airway control type (in PAROS CRF)
- Number of shocks
- Drug timings
- CPR quality\*
- Vascular access type\*
- Mechanical CPR\* (in PAROS CRF)
- Targeted oxygenation / ventilation / BP\*
- ECMO\* (in PAROS CRF)
- IABP\*
- pH, lactate, glucose\*
- 12-lead ECG\*
- Neuroprognostication\*
- Hospital type / volume\*

<sup>\*</sup>denotes new variables

#### **Outcome Core Variables**

Uts	stein 2014 OHCA Variables	PAROS Variables
Sur	vived Event (ROSC sustained until arrival	Patient's status at ED arrival
at E	D and upon transfer of care)	- ROSC
-	Yes	- Ongoing resuscitation
-	No	- Transported without resuscitation
-	Unknown/Not recorded	
Any	ROSC	ROSC at scene/en-route & ROSC at ED
-	Yes	- Yes
-	No	- No
	Unknown/Not recorded	- NA
30	day survival or survival to discharge	Patient status
-	Yes	- Discharge alive
-	No	- Remains in hospital at 30 <sup>th</sup> day post arrest
-	Unknown/Not recorded	- Died in hospital
Neu	urological outcome	Patient neurological status on discharge or at 30 <sup>th</sup>
-	CPC score (1-5)	day post arrest
-	mRS (0-6)	- CPC score (1-4)
-	Unknown/Not recorded	- OPC score (1-4)
		- Unknown

#### **Supplemental variables:**

- Transport to hospital\* (in PAROS CRF final status at scene)
- Treatment withdrawal\*
- Cause of death\*
- Organ donation\*
- Patient reported outcomes measures\*
- Quality of life measures (in PAROS CRF EQ5D)
- 12-month survival

\*denotes new variables