

## Proposed changes to Utstein template

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## 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
I followed
E Data quality activities
M Prehospital ECG
E capability

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 core	
Population served*	X
Cardiac arrests attended*	X
Resuscitation attempted	✓
Resuscitation not attempted	✓
System description*	Х
Dispatch core	
Dispatcher identified cardiac arrest*	✓
Dispatcher provided CPR instructions*	✓
Patient core	
Age	✓
Gender	✓
Witnessed arrest	✓
Arrest location	✓
Bystander response	
Bystander CPR	✓
Bystander AED	✓
First monitored rhythm	✓
Pathogenesis (cause of arrest)	✓
Process core	
Response times	✓
Defibrillation time (time call received to time first shock	✓
given)	<b>v</b>
Targeted temperature control (TTC)*	✓
Drugs given	<b>√</b>
Reperfusion attempted*	Х
Outcome	
Survived Event	✓
Any ROSC	<b>√</b>



✓ = variable available but with varying data options

\*denotes new variables

Utstein 2014 OHCA Variables (Patient CORE)	PAROS Variables	Suggested new definition/data options by Utstein workroup
Age	Age	No change
Gender	Gender	Rename to 'Sex'
Witnessed arrest	Arrest witnessed by	No change
- Bystander Witnessed	- Not witnessed	
- EMS witnessed	- EMS/private ambulance	
- Unwitnessed	- Bystander – healthcare provider	
- Unknown	- Bystander – lay person	
- Not recorded	- Bystander - family	
Arrest location	Location type	Add healthcare/medical facility
- 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	
- Unknown/Not recorded	- In EMS/private ambulance	
	- Others, specify	
Bystander CPR	Bystander CPR	Bystander defined as:
- Compression only	- Yes	<ul> <li>Innocent 1st bystander</li> </ul>
- Compression and ventilations	- No	Activated 1st responder (e.g, via App)
- No bystander CPR		Obligated 1st responder (e.g.
- Unknown		fire/police)
- Not recorded		• EMS



Utstein 2014 OHCA Variables (Patient CORE)	PAROS Variables	Suggested new definition/data options by Utstein workroup
Bystander AED use	Bystander AED applied	
- AED used, shock delivered	- Yes	
- AED used, no shock delivered	- No	TO THE S
- AED not used		orto
- Unknown		
- Not recorded		
First monitored rhythm	First arrest rhythm	Rename to First monitored ARREST rhythm.
- VF	- VF	Redefine as: The first cardiac ARREST rhythm present when
- Pulseless VT	- VT	the monitor or defibrillator is attached to the patient after a
- PEA	- PEA	cardiac arrest.
- Asystole	- Asystole	
- Bradycardia	- Unknown shockable	
- AED non-shockable	rhythm	
- AED shockable	- Unknown unshockable	
- Unknown	rhythm	
- Not recorded	- Unknown	
Pathogenesis	Cause of arrest	KIV revert to 2004 definitions:
- Medical (Presumed cardiac or	- Presumed cardiac	An arrest is presumed to be of cardiac etiology unless it is
unknown, other medical	- Respiratory	known or likely to have been caused by trauma, submersion,
etiologies)	- Electrocution	drug overdose, asphyxia, exsanguination, or any other non-
- Traumatic cause	- Drowning	cardiac cause as best determined by rescuers.
- Drug overdose	- Trauma	Data antique, Dusquina di agricia a Traversa Cultura raign
- Drowning	- Other	Data options: Presumed cardiac, Trauma, Submersion,
- Electrocution		Respiratory, Drug Overdose Asphyxia, Exsanguination, Other non-cardiac, Unknown,
- Asphyxial (external cause)		Anaphylaxis, Gl Bleed
- Not recorded		Aliaphylaxis, of bloca

Utstein 2014 OHCA Variables	PAROS Variables	Suggested new definition/data options by Utstein	
(Process CORE)		workroup	
Response times (mm:ss)	Time call received to time	Response time = Interval between time point 1 – time	,
- Unknown	ambulance arrived at scene	point 2	_
- Not recorded		Time point 1:	Ž
		a. Time of call (Citizen calls 911/equivalent)	•
		b. Call connects to Primary Public Safety Answering	
		Point (PSAP) (Recommended)	
		c. Call answered by EMS Agency or Secondary PSAP	
		Time Point 2:	
		a. Time EMS arrived at scene (wheels stop turning)	
		b. Time EMS arrived at patient's side	
Time to first compression (mm:ss)	Not collected	Time to first compression = Interval between time point 1	
We recommend adding 'Time to first		- time point 2	
compression' as a core variable (see below)		Time point 1:	
https://www.ahajournals.org/doi/epdf/10.1161/CI		a. Time of call (Citizen calls 911/equivalent)	
R.000000000000744		b. Call connects to Primary Public Safety Answering	
		Point (PSAP) (Recommended)	
Time to first compression should be defined as		c. Call answered by EMS Agency or Secondary PSAP	
an interval between 2 time points		Time Point 2: Time of first compression by	
In recognition of the variation of data collected		a. Bystander (Unassisted)	
by different systems, the actual time points used		b. Bystander (Telephone-assisted)	
should be indicated in the template		c. First responder d. EMS	
'Gold standard' that we recommend reporting is		d. EIVIS	
'1b to first compression (irrespective of who delivers it)'			
It is possible to have negative time			
intervals/zero timings e.g. if time of first			
compression was before – time of call			
Defibrillation time (mm:ss)	Time call received to time of		
- Unknown	first shock		
- Not recorded	- Unknown		



Utstein 2014 OHCA Variables (Process CORE)	PAROS Variables	Suggested new definition/data options by Utstein workroup
Drugs given - Adrenaline - Amiodarone - Vasopressin - None given - Unknown - Not recorded	Prehospital drug administration - Epinephrine - Lidocaine - Atropine - Amiodarone - Dextrose - Bicarbonate - Other	<ol> <li>To break down into 3-step variable:</li> <li>Were drugs given during resuscitation? Data options: Yes/No (CORE)</li> <li>If given, what was the first route of access? Data options: IV/IO/IM/Tracheal (CORE)</li> <li>What drugs were given? → Data options: Adrenaline, amiodarone, vasopressin &amp; lidocaine (CORE)</li> </ol>

Utstein 2014 OHCA Variables (Post-resuscitation CORE)	PAROS Variables	Suggested new definition/data options by Utstein workroup	A. C
TTM	Hypothermia therapy	Rename to Temperature control	<b>(*)</b>
Current definition: Core: Targeted temperature management (TTM) is defined as an active therapy to achieve and maintain a specific target temperature for a defined duration	initiated (hospital level) - Yes - No	Active temperature control to prevent pyrexia (> 37.7°C) for 72 h post ROSC	ON OUTCOMES SUST
Avoidance of pyrexia defined as an active therapy to prevent pyrexia (temp > 38.0°C)			
Coronary angiography	Not collected		
Current definition: Urgent coronary angiography defined as within 2 h of cardiac arrest; delayed coronary angiography defined as undertaken during the same hospital admission			
Coronary reperfusion attempted	Emergency PCI	Rename to 'Coronary reperfusion attempted	
Current definition:	performed - Yes	using either PCI or thrombolysis'	
Coronary reperfusion attempted using either PCI or	- No	Type: PCI/thrombolysis/ none/unknown	
thrombolysis		Timing: Intra-arrest/within 2 h of ROSC/>2 h but before discharge/unknown	
Hospital type	Not collected		
Previous data options: Cardiac arrest centre/ non-cardiac arrest centre			
Hospital volume	Not collected		
Number of OHCAs admitted per year			



## Thank you

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