

VARIABLES	Utstein (C=core, O=optional)	Fieldname	fieldtype	Fieldcoding/content	Remarks	Utstein definition
Country of cardiac arrest	C	ReaLand	Text			
Region of cardiac arrest	C	ReaRegion	Text			
Population served by EMS	C	ReaPop	numeric		number as exact as possible	
Cardiac arrest confirmed	C	ReaConf	numeric	00 not recorded; 99 unknown; 01 yes;02 no	Confirmation by EMS on arrival; "unknown" may be chosen, e.g. in case of bystander-CPR with ROSC prior to EMS-arrival	Cardiac arrest is the cessation of cardiac mechanical activity as confirmed by the absence of signs of circulation. If an EMS provider or physician did not witness the cardiac arrest, he/she may be uncertain as to whether a cardiac arrest actually occurred
A1 CPR attempted	C	CPRdone	numeric	00 not recorded; 99 unknown; 01 yes;02 no	any CPR attempted by EMS, person sent to help or bystander, irrespective of continued or not	Cardiopulmonary resuscitation is an attempt to restore spontaneous circulation by performing chest compressions with or without ventilations, for the EuReCa THREE study it also includes the use of an AED without compressions.
A2 Who started CPR	O	PersCPRstart	numeric	00 not recorded; 99 unknown; 01 Person there by chance (true bystander); 02 Person sent to help; 03 EMS	Who started the the resuscitation. Was it a person there by chance or was it a person sent to help by the dispatch center for example via App or as a community response	
A3 CPR by EMS	C	CprEms	numeric	00 not recorded; 99 unknown; 01 yes,02 no	Any CPR by EMS	
A4 Time CPR by EMS	O	CPREMS3Time	Time	hh:mm:ss	Time of CPR started by EMS	
A5 CPR not attempted by EMS	C	NoCPR	numeric	00 not recorded; 99 unknown; 01 died earlier; 02 DNAR; 03 wish family; 04 wish doctor; 05 succesful ICD shock; 06 signs of life	Reason for no attempt as decided by EMS; this field has to be left blank if CPR is attempted by EMS	EMS personnel may not attempt resuscitation when a do- not-attempt-resuscitation (DNAR) order exists, a resuscitation attempt is considered futile, or resuscitation is not required (e.g., the patient has signs of circulation).
A6 PatID	C	PatID	String	Unique number for each submitting region	May be a combination of digits and characters. Used so that the country of origin can trace the patient if there are any questions.	
B1 Patient age	C	PatAge	numeric			Age in years at moment of cardiac arrest
B2 Patient gender/sex	C	PaGender	numeric	00 not recorded; 99 unknown; 01 male; 02 female; 03 other		Sex (male or female) may be an important risk factor for cardiac arrest and resuscitation interventions.
B3 Year of cardiac arrest	C	ReaYr	numeric	YYYY	Year of cardiac arrest	
B3 Month of cardiac arrest	C	ReaMo	numeric	MM	Month of cardiac arrest	
B3 Day of cardiac arrest	C	ReaDay	numeric	DD	Day of cardiac arrest	
B4 Time of cardiac arrest	C	ReaTime	Time	hh:mm:ss	Time of cardiac arrest if known	

B5	Time of call received at dispatch centre	C	time12	Time	hh:mm:ss	Time of receipt of dispatch call	
B6	Time on scene		timeScene	Time	hh:mm:ss	Time of stopping the car on scene	The time and date of stopping the ambulance car or the helicopter etc.
C1	Aetiology of cardiac arrest	C	ReaCause	numeric	00 not recorded; 99 unknown (presumed cardiac); 01 cardiac; 02 trauma; 03 submersion; 04 respiratory; 11 other non-cardiac		An arrest is presumed to be of cardiac aetiology unless it is known or likely to have been caused by trauma, submersion, drug overdose, asphyxia, exsanguination, or any other non-cardiac cause as best determined by rescuers
C2	Aetiology of cardiac arrest (Utstein 2014)	O	ReaC2014	numeric	00 not recorded; 99 unknown; 01 medical; 02 traumatic; 03 drowning; 05 drug overdose; 13 electrocution; 14 asphyxial (external cause)		Medical: This includes cases where the cause of the cardiac arrest is presumed to be cardiac, other medical (e.g. anaphylaxis, asthma, GI bleed) and where there is no obvious cause of the cardiac arrest; Traumatic: Cardiac arrest directly caused by blunt, penetrating or burn injury; Drug overdose: Evidence that the cardiac arrest was caused by deliberate or accidental overdose of prescribed medications, recreational drugs, and ethanol; Drowning: Victim is found submersed in water without an alternative causation; Asphyxial: External causes of asphyxia such as foreign body airway obstruction, hanging, strangulation
C3	Place of cardiac arrest OHCA	C	ReaLocat	numeric	00 not recorded; 99 unknown; 01 residence; 03 work/office; 11 sportfacility; 05 street; 06 public building; 02 long-term care; 98 other		Location of arrest is the specific location where the event occurred or the patient was found. Knowledge of where cardiac arrests occur may help a community to determine how it can optimize its resources to reduce response intervals. A basic list of predefined locations will facilitate comparisons. Local factors may make creation of subcategories useful. For example: Place of residence: e.g., home, apartment, back yard of a home. Public place: e.g., the street, city park, shopping center, sports stadium, entertainment center, airport, railway station, church, beach, office building. Other: hotel room, private office, long-term care nursing facility.
D1	Dispatch: telephone CPR	C	TeleCPR	numeric	00 not recorded; 99 unknown; 01 yes; 02 no;	Info from dispatch centre: is telephone CPR offered? NOT if actually done	
D2	Time started TCPR	O	timeTCPR	Time	hh:mm:ss	Time that the dispatch center started TCPR. Whether CPR was done by bystander or person sent to help is not considered here	
D3	Collapse witnessed	C	ReaWitnes	numeric	00 not recorded; 99 unknown; 01 yes, bystander; 02 no; 03 EMS; 04 person sent to help	Definition person sent to help: persons sent to help, who was alerted to the scene by the dispatch centre via SMS, app or telephone/radio	A witnessed cardiac arrest is one that is seen or heard by another person or an arrest that is monitored.

D4	Bystander CPR	C	BystanCPR	numeric	00 not recorded; 99 unknown; 01 no CPR; 02 any bystander w/o additional information; 03 full CPR; 04 CCO CPR	for the EuReCa THREE study "any bystander-CPR" has been added compared to Utstein definition. Participants should preferably specify between "full CPR" and "CCO CPR"	Bystander CPR is cardiopulmonary resuscitation performed by a person who is not responding as part of an organized emergency response system to a cardiac arrest. Any person alerted to the scene by the dispatch centre is not a bystander. Physicians, nurses, and paramedics may be described as performing bystander CPR if they are not part of the emergency response system involved in the victim's resuscitation
D6	Gender of bystander	O	Gbystnader	numeric	00 not recorded; 99 unknown; 01 male; 02 female; 03 other	Gender of the person on scene by chance who started CPR	
D5	Age of bystander	O	AgeBystander	numeric	XXX years	estimated age of the person on scene by chance who started CPR	
D7	Time CPR started by bystander	O	CPRbystander3Time	Time	hh:mm:ss	Time of CPR started by bystander ("true" bystander there by chance)	
E1	Person sent to help CPR	O	HelperCPR		00 not recorded; 99 unknown; 01 no CPR; 02 any bystander w/o additional information; 03 full CPR; 04 CCO CPR	Any CPR by persons sent to help, who was alerted to the scene by the dispatch centre via SMS, app or telephone/radio	
E2	If person sent to help, who?		HelperWho		01 person alerted by dispatch 02 person with BLS training alerted by dispatch 03 firefighter alerted by dispatch 04 off-duty healthcare professionals alerted by dispatch 05 police alerted by dispatch 06 others alerted by dispatch 99 unknown 00 not recorded		
E3	Time CPR started by person sent to help	O	CPRhelper3Time	Time	hh:mm:ss		
F1	First recorded rhythm	C	IniRhythm	numeric	00 not recorded; 99 unknown; 01 shockable; 02 not shockable	From EMS defib. If AED first: from memory or "shockable" if AED shock given.	The first monitored rhythm is the first cardiac rhythm present when the monitor or defibrillator is attached to the patient after a cardiac arrest. If the AED does not have a rhythm display, it may be possible to determine the first monitored rhythm from a data storage card, hard drive, or other device used by the AED to record data. If the AED has no data recording device, the first monitored rhythm should be classified simply as shockable or nonshockable. This data point can be updated at a later time if the AED has data download capability.
F2	AED connected before EMS arrival with or without shocks	C	AEDConn	numeric	00 not recorded; 99 unknown; 01 yes; 02 no		

F3

AED shocks before arrival EMS	C	AEDShock	numeric	00 not recorded; 99 unknown; 01 yes; 02 no	Can be from AED memory or verbal report and EMS info	When a bystander attempts defibrillation, e.g., public access or lay rescuer defibrillation, it is recorded as a defibrillation attempt before EMS arrival. AEDs are increasingly being made available for access by the general public. In patients with an ICD, a shockable rhythm is likely to have triggered at least one shock by the device before the arrival of EMS personnel. This can be confirmed by analyzing the ICD memory. After extensive discussion, the task force agreed that defibrillation attempts by ICDs are important but difficult for EMS to track. Thus, ICD documentation is optional.
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F4

Time of first defibrillation shock	C	DeflTime	Time	hh:mm:ss	If patient had initial shockable rhythm: Time of first defibrillation; must be corrected for clock drift; has to be left blank if no shock	
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F5

First shock from AED or EMS	C	DefiOrig	numeric	00 not recorded; 99 unknown; 01 AED; 03 EMS	Device from which the first rhythm was derived; has to be left blank if no shock. AED can be used by bystander or person sent to help.	
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G1

Any ROSC	C	ROSC	numeric	00 not recorded; 99 unknown; 01 ROSC; 02 no ROSC	Any ROSC of a duration >30 seconds with no chest compressions given.	Signs of return of spontaneous circulation include breathing (more than an occasional gasp), coughing, or movement. For healthcare personnel, signs of ROSC may also include evidence of a palpable pulse or a measurable blood pressure. For the purposes of the Utstein registry template, "successful resuscitation," or ROSC, is defined for all rhythms as the restoration of a spontaneous perfusing rhythm that results in more than an occasional gasp, fleeting palpated pulse, or arterial waveform. Assisted circulation (e.g., extracorporeal support such as extracorporeal membrane oxygenation or biventricular assist device) should not be considered ROSC until "patient-generated" (i.e., spontaneous) circulation is established. Previous reports focused on outcomes from ventricular fibrillation have variably defined "successful defibrillation" as the termination of fibrillation to any rhythm (including asystole) and the termination of fibrillation to an organized electrical rhythm at 5 s after defibrillation (including pulseless electrical activity, PEA). Neither of these definitions of "successful defibrillation" would qualify as ROSC unless accompanied by evidence of restoration of circulation. By consensus, the term "any ROSC" is intended to represent a brief (approximately >30 s) restoration of spontaneous circulation that provides evidence of more than an occasional gasp, occasional fleeting palpable pulse, or arterial waveform. The time that ROSC is achieved is a core data element.
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G2

Time of first ROSC	C	timeROSC	time	hh:mm:ss	Time of first ROSC	
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G4

Time CPR ended	O	EndCPR4Time	Time	hh:mm:ss	Time CPR ended in case of "died at scene"	
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G3

Died on scene	C	DeadSc	numeric	00 not recorded; 01 yes; 02 no; 99 unknown	Patient dies on scene	Patients who were not transported to hospital and died on scene
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G5

Time left scene	O	LeftScene5Time	Time	hh:mm:ss		
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G6	Time hospital arrival	O	HospitalArrival6Time	Time	hh:mm:ss	
	Status of arrival at hosp	C	HospArri	numeric	00 not recorded; 99 unknown; 01 dead; 02 alive, transfer with ROSC; 03 transport with ongoing CPR; 04 not applicable, alive, no hospital transport	Admission defined as handover from EMS to emergency department or hospital system with ongoing additional treatment in the next step of care. Patients who die on scene and are not transported should be coded as 01 dead.
G7	Month of hospital discharge (Month)	C	DischMonth	numeric	MM	Month of hospital discharge
H1	Date of hospital discharge (Day)	C	DischDay	numeric	DD	Day of hospital discharge
H1	Survival to discharge	C/O	HospDisc	numeric	00 not recorded; 99 unknown; 01 yes, 02 no	Either survival to discharge or 30 day survival must be included; Note: interhospital transfer to same or higher level should not be considered discharge. If death in hospital: same as date of discharge
H2	30 day survival	C/O	surv30d	numeric	00 not recorded; 99 unknown; 01 yes, 02 no	hospital discharge is the point at which the patient is discharged from the hospital acute care unit regardless of neurological status, outcome, or destination. Ideally this should indicate survival to discharge from acute hospital care, including a possible rehabilitation period in a local hospital before longterm care, home care, or death.
H3						Either survival to discharge or 30 day survival must be included