National survival strategy for cardiac arrest

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2023

SRC
Swiss
Resuscitation
Council

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Image reference: Adrian Baer, Sabrina Kohler, Nottwil

1. EXECUTIVE SUMMARY

The National survival strategy for cardiac arrest is a research-based yet practical document. Its aim is to provide suitable guidance for the various implementation partners involved and to assist them in achieving the best possible results. The strategy's goal is to increase the chances of surviving sudden and premature cardiac arrest with a good neurological outcome.
The survival strategy assists implementation partners to organise and prioritise their activities on the basis of strategic goals.
The strategy does not elaborate on the specifics of procedures but makes reference to the relevant specialist publications, some of which are very detailed on individual aspects.
The explanations refer to the resuscitation of affected individuals of all ages. In aspects where paediatric treatment differs appreciably from adult treatment, including prevention and differences of aetiology amongst others, this is highlighted. An in-depth description of neonatal resuscitation is not provided, as this is performed in a limited number of specialist hospitals within Switzerland.
The strategy does not address cardiac arrest leading to death at the end of life or as a result of a pre-existing serious illness.

2. INTRODUCTION

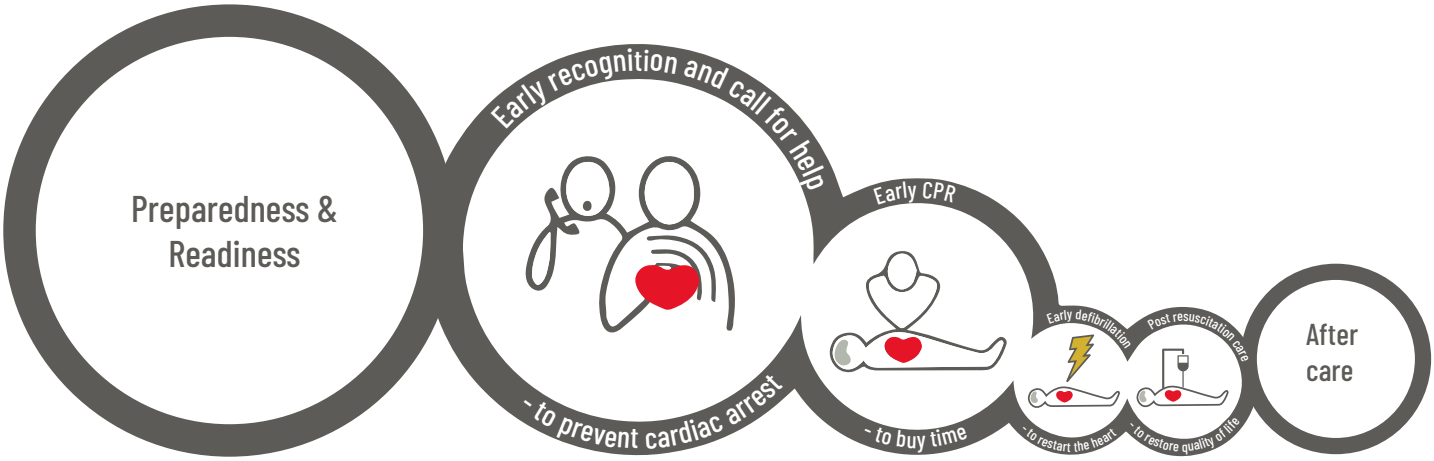
The current document is the revised second edition of the National survival strategy for cardiac arrest. Compared to the first edition, description of the strategic goals in particular has been made more specific and detailed. This was mainly a result of findings from the first SWISSRECA annual report, as well as new scientific findings that have emerged since the initial publication in 2019.

As full members of the SRC, the following organisations support the strategy:

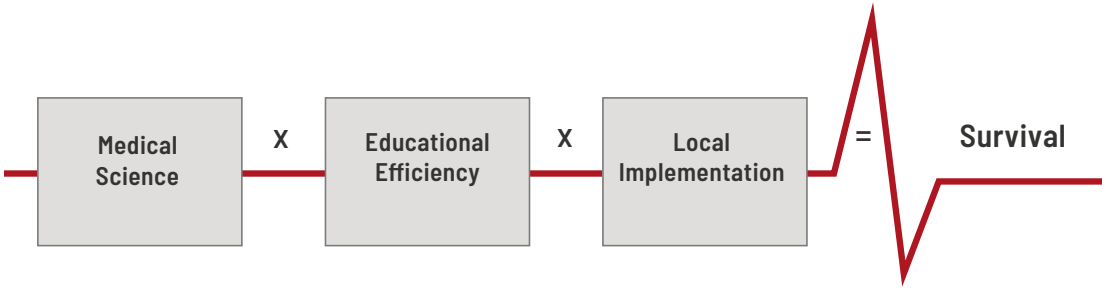
Swiss Society of General Internal Medicine (SSGIM)
Swiss Society for Anaesthesiology and Perioperative Medicine (SSAPM)
Swiss Society of Intensive Care Medicine (SSICM)
Swiss Society of Cardiology (SSC)
Swiss Society of Emergency and Rescue Medicine (SSERM)
Swiss Society of Paediatrics (SSP)
Swiss Underwater and Hyperbaric Medical Society (SUHMS)
Interassociation of Rescue (IVR)
Swiss Military Medical Service (SMMS)
Swiss Red Cross and, through it, the Red Cross organisations (Swiss Samaritans, Swiss Lifesaving Society SLRG, Swiss Military First Aid Association SMSV)
Swiss Nurses' Association (SNA)
Swiss Heart Foundation (SHF)
Swiss Air-Rescue (Rega)
Schweizerische Vereinigung für Betriebssanität (SVBS)
Swiss Paramedic Association
Swiss Medical Association (FMH)

3. STARTING POSITION

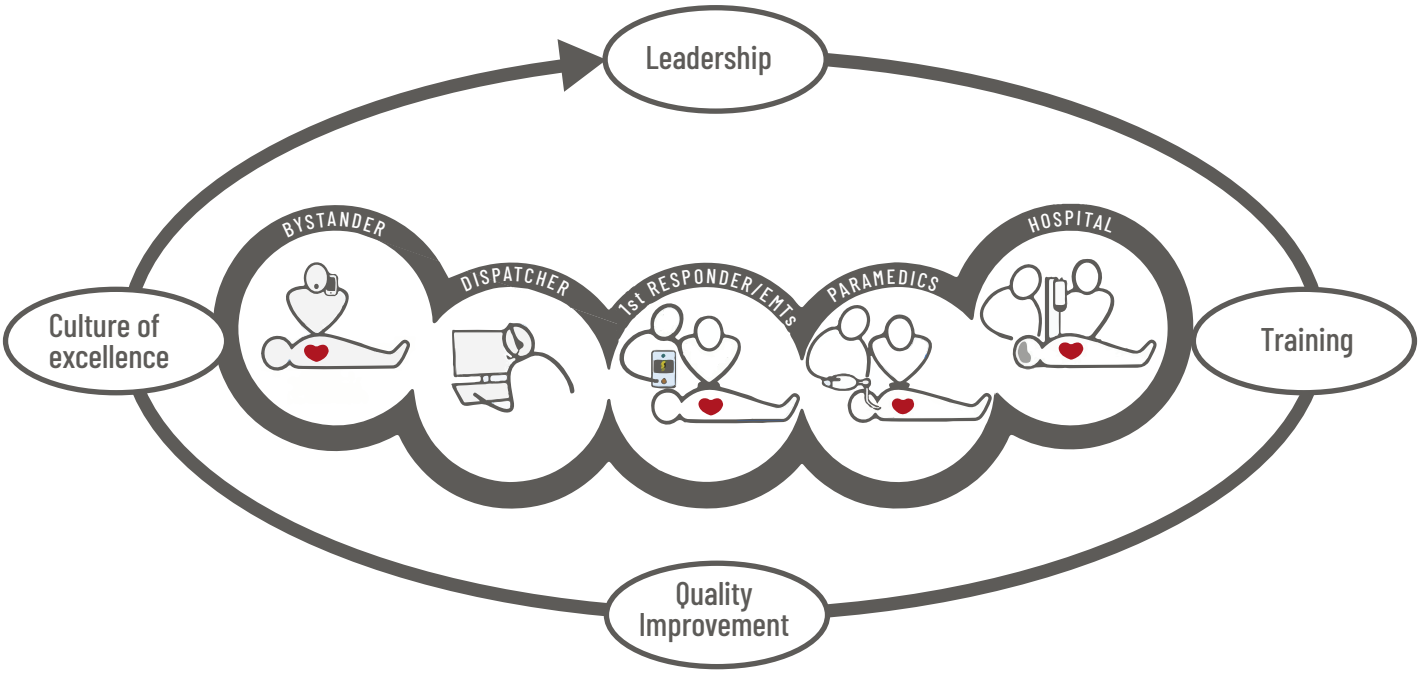
In Switzerland, the probability of sudden and premature cardiac arrest is around 70 to 80 events per 100,000 inhabitants per year. Data collected in the Swiss Registry of Cardiac Arrest (SWISSRECA) since 2017 allows the presentation of survival rates and a comparison with those of other countries.
The existing literature demonstrates that the probability of survival differs across countries and regions (Gräsner et al. 2020, Kiguchi et al. 2020, Couper et al. 2020, Nishiyama et al. 2023). Our starting position is that improvements in prevention and chance of survival are possible.
The patients affected, each with his or her individual previous history, represent given variables. It is only by means of these that influence can be exerted on the care system and its various sub-domains. For many years, the above has been illustrated using the image of the chain of survival.
In the version used by the European Resuscitation Council (ERC) since 2018, the four links of the chain are early recognition and call for help, early CPR, early defibrillation and advanced medical intervention. Each circle's size is based on study data and here represents the number of patients who receive each intervention, with the first link in the chain corresponding to 100%.
This weighting can help when assessing the setting of priorities and allocation of resources for the improvement of resuscitation outcomes. The SRC has added the two links 'Preparedness & Readiness' and 'Aftercare' to the chain of survival in order to illustrate the context of the system and derive interventions from it (Deakin 2018, modified by SRC).



We make the assumption that numerous activities are already being implemented nationwide to improve survival after resuscitation. However, there is scope to optimise potential improvements through better focus and coordination. The Utstein formula for survival (Soreide et al. 2013) states that the three factors of 'science, education and local implementation' can be considered as influences upon the chances of survival.



With decentralised activities already under way in many locations, this document provides an integrated national survival strategy. The SRC has taken the leadership role in this, seeing itself as the driving, coordinating and integrating force in the sense of the illustration below (Global Resuscitation Alliance 2018, Semeraro et al. 2021). The overall goal is to encourage stakeholders in resuscitation to build a system that demonstrates a culture of excellence, leadership, training and quality improvement.



4. VISION AND MISSION OF THE SRC

Vision

Every single person who has experienced a cardiac arrest in Switzerland should receive the best possible care in order to survive with the best possible quality of life.

Mission

The SRC's mission among the public and healthcare institutions is to:

- raise awareness of the issue of cardiac arrest
- publicise the principles of the chain of survival
- promote readiness and competence in resuscitation via training
- disseminate scientific knowledge on resuscitation by making recommendations
- promote the quality of training and the effectiveness of resuscitation efforts
- ensure coordination and cooperation with national and international partners
- evaluate the effectiveness of specific measures and overall outcomes.

5. PURPOSE AND EMBEDDING OF STRATEGY

The national survival strategy is a research-based and practical tool for achieving optimal results in survival outcomes in Switzerland.

It is supported by a broad alliance of stakeholders from related fields. The SRC's role is to coordinate efforts. It calls on all partners involved to assist in the strategy's implementation.

The purpose of the national survival strategy is to:
- coordinate contributions to resuscitation, thereby increasing efficiency and effectiveness
- optimise the chances of survival in cases of cardiac arrest in Switzerland
- demonstrate leadership and positive reinforcement to all involved.

6. TARGET AUDIENCE

The target audience of this document is:
- authorities and policy makers
- Swiss medical bodies concerned with the topic of resuscitation
- other institutions concerned with the topic
- clinical care facilities
- Emergency Medical Service and emergency call centres
- health care professionals
- members of first-aid organisations (first responders, company first-aiders, etc.)
- providers of education, training and professional development
- every inhabitant of Switzerland as a potential first-aider.

7. STRATEGIC GOALS

The national survival strategy was originally inspired by a similar concept developed by the Scottish Government, in which the strategic objectives were illustrated using the chain of survival (Scottish Government 2015). In contrast to the Scottish approach, the present document targets not only out-of-hospital but also in-hospital cardiac arrests, and extends the chain of survival to include event prevention.
Central to this is the involvement of the relevant implementation partners.

The structure is divided into seven categories.
'Out-of-hospital cardiac arrest' lists the strategic goals for out-of-hospital resuscitation. The strategic goals for in-hospital resuscitation follow under 'In-hospital cardiac arrest'.
The 'Target achievement outcome' quantifies what degree of goal attainment seems desirable and possible across the system. However, this is only measurable for some of the goals.
'Possible measures' for achieving the goals are described and 'Measurement criteria' plus measurement tools or data sources proposed. With the tools currently available, it is in many cases not yet possible to measure all achievement outcomes. This may be taken as an incentive to develop the appropriate measurement criteria and tools.
'Potential stakeholders' should work through the above, dealing with the specific goals depending on interest, responsibility and/or expertise, and incorporating the results into the strategy's further development.
Finally, 'References' lists the external sources that deal in various ways with the individual topics.

A. Prevention

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
A1) Inhabitants of Switzerland are aware of the controllable risk factors for cardiovascular disease and adopt behavioural measures to reduce the personal risk.	Hospitals put in place systems for identifying critically ill patients in order to detect early signs of impending cardiac arrest.	• Decreasing incidence of OHCA/ IHCA	• Publicise controllable causes and risk factors • Publicise scope of events and personal influence • IHCA: publicise strategy	• Incidence of risk factors in the population • Incidence of cardiac arrest • Incidence by cause • Incidence by age group • Proportion of hospitals with MET or RRT **Measurement tools/data sources** • SWISSRECA • FSO • SHF	• FOPH • EDK • FMH • CMPH • H+ • SSGIM • Health Promotion Switzerland • SHF • Swiss Red Cross • Hospitals	• ERC & AHA guidelines See website (in German) https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheit/gesundheitszustand/krankheiten/herz-kreislauf-erkrankungen.html

This goal, important in terms of preventive medicine, is already supported by various organisations such as the Swiss Heart Foundation, which is why the SRC does not focus any further upon it.

B. Recognition

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
B1) If there are signs of a time-critical, life-threatening emergency situation[1], the affected individual or an observer immediately calls the 144 emergency number.	When early warning signs occur, observers alert the designated intervention unit.	• 90% of emergency calls received < 3 minutes after symptom onset	• Publicise symptoms, urgency and emergency number, especially via online campaigns • Reduce barriers • Promote alarm systems • Courses in schools	• Interval from symptom onset to alarm • Awareness of the 144 emergency number • Awareness of the internal hospital emergency number **Measurement tools/data sources** • SWISSRECA • AMIS Plus • Swiss Stroke Registry	• FOPH • EDK • CMPH • IVR • EMCC • Hospitals • Swiss Red Cross • SHF • SSGIM • Swiss Paramedic	Olasveengen et al. 2021
B2) Anyone observing a cardiac arrest immediately calls the 144 emergency number.	Anyone observing a cardiac arrest immediately calls 2222 (or the alternative internal hospital emergency number if applicable) to alert the responsible intervention unit.	• 90% of emergency calls received < 3 minutes in cases of observed cardiac arrest	• See above • Emergency call button, analogous to fire alarm	• Interval from symptom onset to alarm **Measurement tools/data sources** • SWISSRECA	• FOPH • EDK • CMPH • IVR • Hospitals • Swiss Red Cross • SHF • Swiss Paramedic	Olasveengen et al. 2021

1 Chest pain, respiratory distress, unconsciousness, stroke, severe injury ('First Hour Quintet')

C. Cardiopulmonary resuscitation

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
C1) In the event of cardiac arrest, any bystander present immediately perform chest compressions and ventilation (chest compressions as a minimum) after calling emergency services and until organised help arrives. In cases of cardiac arrest in children, increased attention must be paid to ventilation.	Observers of a cardiac arrest carry out high-quality basic life support immediately after calling emergency services and until professional help arrives (HPCPR).	• 90% of resuscitation by first-aiders < 3 minutes • in cases of cardiac arrest organised assistance • Where AED data is available: 80% CPR performance	• Publicise quality criteria and provide training on this • Standardised, structured guidance on HPCPR by dispatchers • Use of feedback systems • Standardised evaluation of AED data	• Percentage of resuscitation by first-aiders • Interval from cardiac arrest to resuscitation by first-aiders • HPCPR parameters (rate, depth, pressure point, recoil, minimal interruption) • Ventilation for children **Measurement tools/data sources** • SWISSRECA • AED data	• EDK • Course providers • Hospitals • Swiss Red Cross • Swiss Red Cross	· Olasveengen et al. 2021 · Wnent et al. 2021 · Schmicker et al. 2021
C2) Whenever possible, the will of the patient should be respected when it comes to a decision to start resuscitation.	Where patients have no prospect of a good neurological outcome after cardiac arrest, DNAR status is decided on together with patients and relatives, communicated and, in the event of cardiac arrest, respected.	• 90% if measurable	• Publicise FMH advance directive and make available • Publicise SAMS guidelines to professionals	• Percentage of DNAR decisions • Pre-existing CPC vs resuscitation decision • Delta CPC (pre-existing vs outcome) **Measurement tools/data sources** • SWISSRECA • QM processes	• General practitioners and paediatricians of Switzerland • Care homes • Patient organisations • Pro Senectute • SAMS • SSGIM • Hospitals • Spitex • Swiss Red Cross • SHF • SSERM • Swiss Paramedic	• SAMS guidelines • Decisions on cardiopulmonary resuscitation' • Mentzelopoulos et al. 2021 • Child and Adult Protection Act

C. Cardiopulmonary resuscitation

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
C3) The highest possible proportion of the Swiss population receives initial or follow-up BLS-AED training every year. The focus is on training school students and members of at-risk groups.	Hospital staff with patient contact attend a BLS-AED course at least every two years, receiving interim training on the principle of low volume/high frequency.	• 50% of the population or 100% of hospital staff with patient contact are trained in BLS-AED • Annual growth of 2.5% outside clinical settings	• Issuing of training guidelines • Promotion of courses • Awareness campaign • Influencing hospitals and employers • Integrating ILS courses into post-graduate degree programmes • Integrating into school curriculum • Kids Save Lives programmes	• Number of participants • Retention percentage **Measurement tools/data sources** • Participant statistics from SRC etc.	• FOPH • EDK • CMPH • Military • SRC course providers • Swiss Red Cross • SHF • Schools • SECO • Pro Senectute	• SRC course guidelines • Olasveengen et al. 2021 • SECO guidance on the EmpA Ordinance • Panchal et al. 2020 • Ng et al. 2023 • Böttiger et al. 2020 • Napp et al. 2020
C4) Upon calling emergency services, first-aiders receive standardised and structured guidance from dispatchers on resuscitation, including the use of an AED (T-CPR).		• 90% of cases with clear indication	• Standardised telephone prompt protocols • Structured immediate measures via telephone • Training on T-CPR in EMCCs • Promotion of implementation concepts in EMCCs • Technology-supported processes (e.g. video link) • QM processes	• Percentage of cardiac arrests detected by telephone (telephone triage) • Percentage of guided T-CPR • On-floor time **Measurement tools/data sources** • SWISSRECA • Data QM processes	• IVR • EMCC	• Semeraro et al. 2021 • IVR guidelines for validation of emergency medical call centres EMCC 144 • Seaman 2020 • Riva et al. 2020 • Drennan et al. 2021 • Linderoth et al. 2021 • Ong et al. 2022 • Guerrero et al. 2022

C. Cardiopulmonary resuscitation

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
C5) Organised first-aiders (first responders, rapid responders) are systematically dispatched to cardiac arrest situations and perform high-quality basic life support (HPCPR) until arrival of Emergency Medical Service.		• Requested in 90% of all OHCAs with a clear indication • Where (AED) data is available: 80% CPR performance	• Installation of regional/ cantonal FR systems • Systematic request by the EMCCs	• Percentage of dispatched calls • CPR performance **Measurement tools/data sources** • SWISSRECA	• EMCC	• Semeraro et al. 2021 • Oving et al. 2021 • Stroop et al. 2021 • Salhi et al. 2021 • Gamberini et al. 2023 • Sarkisian et al. 2020 • Scquizzato et al. 2020 • Berglund et al. 2022 • Caputo et al. 2017 • Auricchio et al. 2019

D. Defibrillation

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
D1) In cases of cardiac arrest, an Automated External Defibrillator (AED) is used within 5 minutes.	In cases of cardiac arrest, a defibrillator is used within 3 minutes.	• 90%	• Needs assessment (retrospective) • Devices are strategically positioned (according to research-based predictive models) and signposted and locations are documented so as to be accessible to the EMCCs and advertised to the general public • Device functionality ensured • Location information by EMCC 144 • Supply by first responders • Supply by drone	• Interval from cardiac arrest until first defibrillation • Interval from calling 144 until first defibrillation • Distribution maps • Discrepancy between availability and use (geolocation) • Number of AEDs deployed **Measurement tools/data sources** • SWISSRECA	• Communities • CMPH • Hospitals • SHF • Swiss Red Cross • Swiss Association of Towns and Cities	• Olasveengen et al. 2021 • Yoshimoto et al. 2023 • Jespersen et al. 2022 • Del Rios 2023 • van Diepen 2022 • Deakin et al. 2020 • Ruan et al. 2022 • Stankovic et al. 2021 • Adielsson et al. 2020 • Auricchi et al. 2020
D2) AED data are systematically read and assessed and form part of the quality management system.	AED data are systematically read and assessed and form part of the quality management system.	• 90%	• Recommendations • Guidelines of Emergency Medical Service • Advice and coaching • Orientation towards national reference systems	• Number of heart rhythms analysed **Measurement tools/data sources** • SWISSRECA	• H+ • Emergency Medical Service • Hospitals	• IVR guidelines for validation of Emergency Medical Service

E. Advanced resuscitation measures

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
E1) Affected individuals receive advanced treatment by professional Emergency Medical Service as quickly as possible.	Affected individuals receive advanced treatment from a resuscitation team within 5 minutes.	OHCA: • 50 % in 10 min • 90 % in 15 min IHCA: • 90 %	• Strategic vehicle stationing • Rapid dispatch • Deployment (next best vehicle strategy) • First and rapid responders	• Response times and intervals **Measurement tools/data sources** • SWISSRECA • Data QM processes • IVR guidelines for validation of Emergency Medical Service	• IVR • Cantonal public health ministers • Emergency Medical Service • Swiss Paramedic • SSERM • SSAPM • H+	• Soar et al. 2021 • IVR guidelines for validation of Emergency Medical Service • Gnesin et al. 2021
E2) Emergency Medical Service provide HPCPR.	Resuscitation team or MET provides HPCPR.	• 90%	• Systematic post-processing and data analysis • Introduction of CPR coach/field supervisor	• HPCPR parameters • Capnography **Measurement tools/data sources** • Data QM processes	• IVR • Swiss Paramedic • SSERM • SSAPM • Hospitals • H+	• Soar et al. 2021 • Smith et al. 2020
E3) Emergency Medical Service are guided by current research and best practice evidence on resuscitation.	Resuscitation teams or MET are guided by the current research and best practice evidence on resuscitation.	• 100%	• Training, newsletters, guidelines • Introduction of CPR coach/field supervisor	• Emergency Medical Service demonstrate how they ensure this as part of IVR validation **Measurement tools/data sources** • Not currently defined	• IVR • Emergency Medical Service • Swiss Paramedic • SSERM • SSAPM • SSICM • Hospitals	• ILCOR-CoSTR • Soar et al. 2021
E4) People who have experienced cardiac arrest are transported directly to an appropriate hospital. Secondary transport is to be avoided.	People who have experienced cardiac arrest are transferred for further care to an appropriate department or specialist hospital.	• 90%	• Allocation criteria are made available	• Causes of cardiac arrest **Measurement tools/data sources** • SWISSRECA • Data QM processes	• IVR • Swiss Paramedic • SSAPM • SSERM • H+	• Soar et al. 2021
E5) ALS teams systematically check criteria for starting and continuing or stopping resuscitation.		• 90%	• TOR criteria are publicised • UB-ROSC • Check introduction of eCPR	• QM processes • SWISSRECA	• Swiss Red Cross • SSAPM • SSERM	• Soar et al. 2021 • Nas et al. 2021 • Lauridsen et al. 2021

F. Post-resuscitation care

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
F1) Affected individuals receive standardised and structured intensive medical care following ROSC.		• 90%	• Systematic post-processing and data analysis • Use of post-ROSC algorithm • Cooperation with SSICM	• Ventilation parameters • Circulation parameters • TTM • 12-channel ECG (as surrogate parameter) • PCI **Measurement tools/data sources** • SWISSRECA • Data QM processes	• SRC • SSAPM • SSERM • SSICM	• Nolan et al. 2021 • Baldi et al. 2021
F2) Outcome parameters are systematically recorded in the event of successful resuscitation.		• 100%	• Participation of Emergency Medical Service and hospitals in SWISSRECA	• ROSC • Hospital discharge rates • Outcome scores **Measurement tools/data sources** • SWISSRECA	• SSICM • Hospitals • H+	• IVR, SWISSRECA annual reports
F3) Where resuscitation is futile, the individual's suitability for organ donation is investigated.			• Make documents available	• Organ donation trends **Measurement tools/data sources** • Data capture in hospital • Swisstransplant statistics	• SSAPM • SSICM • SSERM • Swisstransplant	• Nolan et al. 2021 • Mentzelopoulos et al. 2021 • Swisstransplant • Liu et al. 2020

G. Aftercare

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
G1) Affected individuals and their relatives receive offer of support for psychological processing during and after resuscitation.		• 90%	• Enable presence during resuscitation • Building care teams	• Degree of utilisation **Measurement tools/data sources** • Add question on offer and use of support to SWISSRECA	• Cantonal public health ministers • Emergency Medical Service • Hospitals	• Dainty et al. 2021 • Doum et al. 2021 • Considine et al. 2022
G2) Bystanders, first responders and professionals receive offer of support for psychological processing.		• 90%	• Intervention of care/peer teams • If required, event debriefing for participants	• Degree of utilisation **Measurement tools/data sources** • In SWISSRECA, add question on supply and use of support	• Cantonal public health ministers • Emergency Medical Service • Hospitals • Care/peer teams	

H. Culture and context

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
H1) The participating organisations support a continuous improvement approach (culture of excellence) to increase the chances of survival after cardiac arrest.			• Awareness campaigns • Info events • Conference contributions • Support for (flagship) projects	• Overview of successful projects	• Everyone	• Semeraro et al. 2021 • Dyson et al. 2020 • Ko et al. 2020
H2) Local system managers record all relevant data in SWISSRECA and derive improvement measures from the results of analysis.		• 90%	• Training, motivation • Advice • Workshops • Embedding within IVR validation guidelines	• SWISSRECA participation • Completeness and quality **Measurement tools/data sources** • SWISSRECA • IVR validation procedure for Emergency Medical Service and EMCCs	• IVR • Hospitals • H+ • Emergency Medical Service	• IVR, SWISSRECA annual report
H3) Results of national data collection are published regularly and measures derived from them. System comparability increases with the degree of transparency.		• Not currently defined	• Own websites • Professional journals • Implicit competition for the best results • Conferences • SWISSRECA annual report	• Publication frequency and reach	• SRC • IVR • SSERM • SHF • Swiss Red Cross • Swiss Paramedic	• IVR, SWISSRECA annual report • Jaramillo et al. 2020 • Majewski et al. 2021

H. Culture and context

Out-of-hospital cardiac arrest (OHCA)	In-hospital cardiac arrest (IHCA)	Target achievement outcome	Possible measures	Measurement criteria	Potential stakeholders	References
H4) All affected individuals are guaranteed access to resuscitation measures; disadvantages are reduced as much as possible. This requires solutions tailored to local and regional needs.		• 90%	• Informing professionals about system inequalities (e.g. socio-economic or gender-related)	• Establish continuous national monitoring with the FSO	• Communities • CMPH • SRC • SHF • Swiss Red Cross • Swiss Association of Towns and Cities	• Souers et al. 2021 • Lee et al. 2023 • Grunau et al. 2020 • Parikh et al. 2020 • Kotini-Shah et al. 2021 • Møller et al. 2021 • Leung et al. 2021 • Jensen et al. 2022 • Grubic et al. 2022
H5) There is clear political embedding of the topic of resuscitation.		• Not currently defined	• Lobbying	• Not currently defined	• CMPH • IVR • SRC • Swiss Red Cross • SHF	
H6) Collaboration with research institutions and industry partners to develop new solutions.		• Not currently defined	• Research and development projects	• Not currently defined	• Research institutions • SNF • Innosuisse • Industry	

8. IMPLEMENTATION

The SRC is committed to intensive cooperation with partners on the issues of cardiac arrest and resuscitation and invites discussion with and participation of all organisations and individuals involved in the matter.
Strategic goals are published on the SRC website. This enables system managers to tell by means of a simple self-check whether their organisation is providing the best possible care or if there is a need for action. Goals are regularly adapted to the latest research findings.

9. PERIOD OF VALIDITY AND REVIEW

The National survival strategy for cardiac arrest will be reviewed regularly in future, i.e. at least after publication of the latest version of the ILCOR CoSTR. As a result, the strategy will be adjusted if necessary, but also in the case of important innovations derived from other sources.

The next review is expected to take place in the Spring of 2026.

10. GLOSSARY

AED	Automatic External Defibrillator
AMIS Plus	Acute Myocardial Infarction in Switzerland
CMPH	Swiss Conference of the Cantonal Ministers of Public Health
CoSTR	Consensus on Science with Treatment Recommendation
CPC	Cerebral Performance Category
CPR	Cardiopulmonary resuscitation
Defibrillation	Therapy aimed at interruption of ventricular fibrillation
DNAR	Do not attempt resuscitation
eCPR	Extracorporeal cardiopulmonary resuscitation
EDK	Swiss Conference of Cantonal Ministers of Education
EMCC	Emergency Medical Call Center
EmpA	Employment Act
EMS	Emergency Medical Service
$etCO_2$	End-tidal carbon dioxide
First-aider/bystander	Individuals who happen to be present, regardless of their medical qualification
First Responder	Individuals or organisations outside of the regular Emergency Medical Service who offer a form of organised first aid and who, in the case of medical emergencies, are qualified to provide help in the period before the arrival of life-saving devices
FMH	Foederatio Medicorum Helveticorum
FOPH	Federal Office of Public Health
FSO	Federal Statistical Office
H+	Leading national association of public and private hospitals, clinics and special-care institutions
HPCPR	High Quality CPR (Rate of 100 –120/min., depth 5–6 cm, pressure point over centre of ribcage, complete recoil, minimal interruptions)
IHCA	In-hospital cardiac arrest
ILCOR	International Liaison Committee on Resuscitation
IVR	Interassociation of Rescue
MET	Medical Emergency Team
OHCA	Out-of-hospital cardiac arrest
MET	Medical Emergency Team
ROSC	Return of Spontaneous Circulation
RRT	Rapid Response Team
SAMS	Swiss Academy of Medical Sciences
SECO	State Secretariat for Economic Affairs
SHF	Swiss Heart Foundation
SSERM	Swiss Society of Emergency and Rescue Medicine
SSGIM	Swiss Society of General Internal Medicine
SSAPM	Swiss Society for Anaesthesiology and Perioperative Medicine
Swiss Paramedic	Swiss Paramedic Association
Swiss Red Cross	Swiss Red Cross and, through it, the Red Cross organisations (Swiss Samaritans, Swiss Lifesaving Society SLRG, S wiss Military First Aid Associations SMSV)
SWISSRECA	Swiss Registry of Cardiac Arrest
T-CPR	Telephone CPR
TOR	Termination of resuscitation
TTM	Targeted Temperature Management
UB-ROSC	Utstein-based ROSC score

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