

In this issue...

WRAH Poster - page 2



10 years of WRAH - pages 3-5



September ALS Update - pages 6-7



Papers from ERC ResearchNET - page 8



Events coming soon - page 9



10th September marks world suicide prevention month. Every life lost to suicide is a tragedy, and suicide is **preventable** not **inevitable**. Remember it is ok to not be ok and there are a whole host of organisations out there to seek confidential help and advice.

We wanted to show our support to this important event through our choice of ALS update and therefore in the pages below you will find a section on **toxicology**.

Also in this edition find out about **World Restart A Heart Day!** This year marks 10 years since the European Declaration establishing a formal Cardiac Arrest Awareness Week so expect your social media sites to be flooded with images of people learning CPR around the world as we approach October 16th. We've also included some of this months **featured papers** from ResearchNET and some upcoming events.

Have an idea you'd like to share with us and other readers? Get in touch via social media or email and we will help publicise any ongoing projects/work/events related to the field of resuscitation science.

WHO ARE WE:

- 16 young professionals
- 12 countries
- 8 specialities/roles
- enthusiastic about resuscitation
- A supporting committee of the ERC



facebook.com/YoungERC.resus



twitter.com/erc_young



Instagram.com/young_erc/



linkedin.com/groups/8835936/



www.youngercscoop.com



<https://young-erc.webflow.io/>

ALL CITIZENS
of the world
can **SAVE** a life



16 OCT 2022

World Restart a Heart day

Restart a heart in **3** simple steps!



1 Check



2 Call



3 Compress

MORE INFO

WWW.ILCOR.ORG/WRAH

#WORLDRESTARTAHEART

AN INITIATIVE BY



EUROPEAN
RESUSCITATION
COUNCIL

"All citizens of the world can save a life"

YEARS
10

2022 marks 10 years since the formal declaration establishing a **European Cardiac Arrest Awareness Week**...and what an incredible 10 years it has been!

Around the world millions of people have been trained in CPR.

Last year training packs were sent to 192 of the 194 countries of the world!

This has been an incredible achievement and we know many of you have contributed yourselves to your local communities.

16TH OCT 2022



JOIN THE CHALLENGE FOR
**WORLD RESTART
A HEART DAY**
16 OCTOBER 2022

SHARE WITH US YOUR VIDEOS

- 1 Record yourself while performing CPR (CHECK, CALL, COMPRESS) or while showing the WRAH poster
- 2 Try to do this in the funniest, unusual, and original environment or situation
- 3 Post the video on social media using the hashtag **#WorldRestartAHeart** and nominate other 3 colleagues/friends to do the same

#WORLDRESTARTAHEART

EUROPEAN
RESUSCITATION
COUNCIL

CPR:
everyone deserves
a chance



How to get involved

Check out the **posters/flyers** on the ERC website

Join in your **local resus councils** plans for teaching in the community

Follow the **ERC/YERC social media** pages for updates and behind the scenes peeks with the team

Join the **EUSEM competition**: create a manikin, film yourself training in your local community, send it to info@eusem.org and to younger1988@gmail.com to be featured within GRA

Head over to www.globalresuscitationalliance.org on 20th Oct for a special **WRAH webinar**

For posters/flyers in your language look here:

<https://www.erc.edu/about/restart>

10 Year Anniversary of the "European Cardiac Arrest Awareness Week" Declaration

by Maria Georgiou (Secretary)
@MariaGeorgiou91



[Dr.Marios Georgiou explains how the initiative was born](#)

Marios Georgiou is the director of nursing in the American Medical Centre in Cyprus. He has been active in the field of Resuscitation since 2004 as a nurse and an academic. He has made very important contributions to the development and growth of the ERC and led the campaign by the ERC in order to have a written Declaration from the European Parliament for the establishment of a European Cardiac Arrest Awareness Week. He has been awarded by the Board of Directors with Honorary Membership of the ERC for his contribution.

"Back in the day I was Director of External affairs of ERC. I happened to know MEP Antigoni Papadopoulou whose husband suffered an out of hospital cardiac arrest and was saved by bystander CPR. Therefore, I had the idea, which I proposed to the ERC board, to prepare a declaration to be voted by the European Parliament about European Cardiac Arrest Awareness week .

The major aim of the declaration was to make high quality Resuscitation accessible to all people and to develop public access defibrillation programmes. Then, the declaration was prepared, approved by the board and handed to Mrs Papadopoulou to present to the European Parliament. The effort was started on 12th of March 2012 and Mrs Papadopoulou found another 4 MEPs to support the declaration with the brace of the ERC, by doing live CPR demonstrations in the the Parliament and giving out leaflets for awareness. Eventually, the declaration was voted by **500 MEPs on the 14th of June 2012.**

The 1st year the **ERC adopted the 16th of October as the European Restart a heart day** was 2013 with the theme -Children saving lives- . "



▶ Declaration of the European Parliament of 14 June 2012 on establishing a European cardiac arrest awareness week

The European Parliament ,

– having regard to Rule 123 of its Rules of Procedure,

A. whereas in Europe approximately 400 000 people suffer an out-of-hospital sudden cardiac arrest every year, with a survival rate of less than 10%;

B. whereas the survival of many apparently healthy victims depends on cardiopulmonary resuscitation (CPR) administered by bystanders and early defibrillation, and whereas an intervention within 3-4 minutes may increase the chance of survival to more than 50%;

C. whereas in Europe, automated external defibrillator (AED) programmes are only partially implemented;

1. Calls on the Commission and the Council to encourage:

- the adoption of common programmes for implementing AED in public places and training lay people in all Member States,
- the adjustment of legislation in order to facilitate CPR and defibrillation by non-medical persons,
- systematic data collection for feedback and quality management in every programme;

2. Calls on the Commission and the Member States to establish a European cardiac arrest awareness week aimed at improving the awareness and education of the general public, physicians and healthcare professionals;

3. Calls on the Commission to support the Member States in adopting and implementing national strategies for equal access to high-quality CPR;

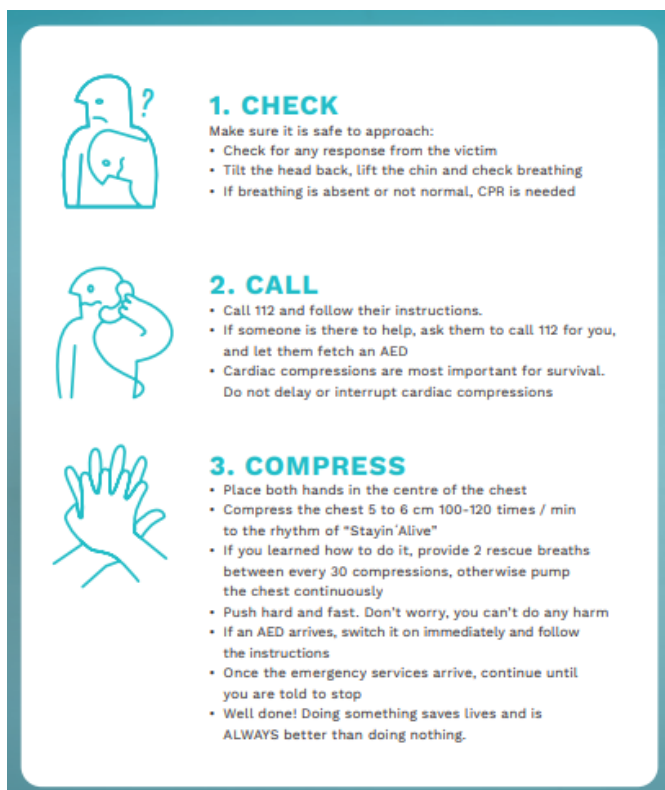
4. Calls on the Commission and the Member States to enact harmonised legislation across the EU in order to provide immunity from liability to non-medical first responders who offer voluntary assistance in cardiac emergencies;

5. Instructs its President to forward this declaration, together with the names of the signatories⁽¹⁾ , to the Council, the Commission and the parliaments of the Member States.

(1) The list of signatories is published in Annex 1 to the Minutes of 14 June 2012 (P7_PV-PROV(2012)06-14(ANN1)).

Last updated: 19 June 2012

Legal notice



1. CHECK
Make sure it is safe to approach:

- Check for any response from the victim
- Tilt the head back, lift the chin and check breathing
- If breathing is absent or not normal, CPR is needed

2. CALL

- Call 112 and follow their instructions.
- If someone is there to help, ask them to call 112 for you, and let them fetch an AED
- Cardiac compressions are most important for survival. Do not delay or interrupt cardiac compressions

3. COMPRESS

- Place both hands in the centre of the chest
- Compress the chest 5 to 6 cm 100-120 times / min to the rhythm of "Stayin' Alive"
- If you learned how to do it, provide 2 rescue breaths between every 30 compressions, otherwise pump the chest continuously
- Push hard and fast. Don't worry, you can't do any harm
- If an AED arrives, switch it on immediately and follow the instructions
- Once the emergency services arrive, continue until you are told to stop
- Well done! Doing something saves lives and is ALWAYS better than doing nothing.



#WorldRestartAHeart

#CheckCallCompress

#CPREveryoneDeservesAChance

#ERC



For posters/flyers in your language look here:

<https://www.erc.edu/about/restart>



Your September ALS Update

 @JeleonoraEk
Jacqueline Eleonora Ek, ALS Rep

This month we focus on **toxicology**.

Serious outcomes from toxic agents have increased **4.45% per year** since 2000.

Toxins can be managed with **decontamination**, enhanced **elimination** or **specific antidotes**.

Decontamination

Activated charcoal: preferred method of GI decontamination, most effective if given within 1hr of ingestion at 0.5- 1 g/kg, it does not bind lithium, heavy metals, and toxic alcohols.

Gastric lavage: should not be performed routinely, only indicated in potentially lethal amount of toxic agent within 1hr of ingestion.

Whole bowel irrigation (WBI): Used in sustained-release/ enteric-coated drugs (iron, lithium, potassium, "body packers") if >2hrs from ingestion.

Dermal exposure: remove clothing + irrigate with water for at least 15 min.

Ocular lesions: irrigation with NaCl for at least 30 min. Avoid topical medication until expert evaluation is sought.

Avoid laxatives and emetics.

3 KEY MESSAGES

1. **Seek expert advice early!**
2. **Basic supportive care remains the key treatment of poisonings!**
3. **If in cardiac arrest remember to still go through ALL reversible causes!**

Enhanced elimination


Multiple-dose activated charcoal (MDAC): used in drugs that tend to form bezoars, slow the GI motility, sustained release or toxic agents with elevated biliary excretion and entero-hepatic circulation. Given over several hours, 1g/kg, followed by 0.25-0.5g/kg every 2- 4h.

Forced diuresis: In poisonings from amanita phalloides (death cap fungus), phenobarbital, salicylates & ethylene glycol.

Urine alkalinisation (pH>7.5): IV sodium bicarbonate infusion. Used in salicylate intoxication, phenobarbital & herbicides. Common complication: Hypokalaemia.

Haemodialysis/ hemofiltration: Can be used in ethylene glycol, methanol, lithium, barbiturates, salicylates, paraquat.

Remember to read about contraindications to the above!

 Specific **Antidotes**
on the next page



Your September ALS Update



@JeleanorEk

Jacqueline Eleonora Ek, ALS Rep

Specific Antidotes

Drugs	First Line	Consider	Avoid
Cardiovascular and neurological medication			
Digoxin	Lidocaine – ventricular arrhythmias	Digoxin-Fab 80 mg, repeated as required ^{308,309}	Calcium channel blockers Class 1a antiarrhythmic drugs
Calcium channel blockers	IV calcium 1–2 g every 10–20 min/ 0.02–0.04 g/kg/h High-dose insulin euglycemic therapy Catecholamines Atropine ^{289,310–323}	Pacing VA-ECMO Intravenous lipid emulsion ^{324,325}	
Beta-blockers	High-dose insulin euglycemic therapy Catecholamines ^{326–328}	Glucagon Intravenous lipid emulsion phosphodiesterase inhibitors ^{329–332}	
Tricyclic antidepressants	Sodium bicarbonate - broad complex ventricular arrhythmias: 1-2 mmol kg ⁻¹ , target pH 7.45–7.55 ^{333–339}	Intravenous lipid emulsion ²⁹⁰	
Neuroleptics	Sodium bicarbonate - broad complex ventricular arrhythmias: 1–2 mmol kg ⁻¹ Dantrolene, Bromocriptine - neuroleptic malignant syndrome ³⁴⁰		Dopamine Adrenaline Dobutamine ³⁴¹
Anticonvulsants	Sodium bicarbonate - broad complex ventricular arrhythmias: 1–2 mmol kg ⁻¹ Dantrolene Carnitine, Naloxone – valproic acid ³⁴²	Haemodialysis ECLS – carbamazepine ^{343,344}	
Benzodiazepines		Flumazenil ^{345,346}	
Local anaesthetics	Intravenous lipid emulsion: 20% lipid emulsion, 1.5 ml kg ⁻¹ over 1 min followed by an infusion at 0.25 ml kg ⁻¹ min ⁻¹ for up to 60 min. 2 bolus repetitions, max cumulative dose 12 ml kg ⁻¹ . ^{290,347–353}		
Drugs of abuse			
Opioids	Naloxone 0.4–2 mg, repeat every 2–3 min (strong recommendation, very low- quality evidence) ^{354,355}		
Cocaine	Benzodiazepines - seizure control ^{356,357}	Alpha-blockers, calcium channel blockers, nitro-glycerine – hypertension ^{358–361}	Beta-blockers not as first line management ^{362–364}
Amphetamines	Benzodiazepines - seizure control	Cyproheptadine, chlorpromazine, ziprasidone – serotonin-ergic syndrome ^{365–368}	
Systemic asphyxiants			
Cyanide	Hydroxycobolamin 70 mg/kg/1–3 min ^{369,370}	Sodium thiosulfate ³⁷¹	Amyl nitrite, sodium nitrite – avoid if smoke inhalation ^{372,373}
Carbon monoxide	Oxygen	Hyperbaric oxygen ^{374–379}	
Hydrogen sulphide	Nitrite Hydroxycobolamin ^{380–384}		
Local asphyxiants (Irritant gases)		N-Acetylcysteine – phosgene ³⁸⁵	
Organic solvents and halogenated hydrocarbons		Beta-blockers – arrhythmias N-Acetylcysteine – hepatotoxicity ^{386,387}	
Biotoxins			
Botulinum toxin	Antitoxin ^{388,389}		
Viper envenomation	Antivenom	Polyvalent immune Fab ³⁹⁰	
Marine biotoxins	Antivenom, magnesium – jellyfish ³⁹¹		

To read more about cardiac arrest related to toxicology check out pages 186-190 of the ERC 2021 Guidelines on the 'Cardiac Arrest in Special Circumstances' section at <https://cprguidelines.eu/>

Interesting papers from the

ERC Research NET



By Jessica Rogers (Vice-Chair)

 @Dr_JRogers

Temperature Control After In-Hospital Cardiac Arrest: A Randomized Clinical Trial

Wolfrum et al. *Circulation* 2022 (coming soon!)

A randomised control trial looking at hypothermic control vs normothermia in In Hospital Cardiac Arrest Patients and their outcomes in terms of 180 day mortality.

Complete Revascularization and One-Year Survival with Good Neurological Outcome in Patients Resuscitated from an Out-Of-Hospital Cardiac Arrest

Kajana et al. *Journal of Clinical Medicine* 2022

<https://doi.org/10.3390/jcm11175071>

An observational study using data from the Lombardia Cardiac Arrest Registry to look at patients with multivessel cardiac disease following OHCA who went on to have coronary angiography during their initial admission. They looked at survival rates of those who received complete revascularisation vs infarct-related artery only revascularisation.

Laypeople's activity for seeking telephone number of EMS before and during the COVID-19 outbreak: An analysis of web search data

Alexei Birkun. *American Journal of Emergency Medicine*

<https://doi.org/10.1016/j.ajem.2021.12.043>

This study looked at google trends across USA, India, Brazil, UK and Russia before and during the covid pandemic in terms of search items for Emergency Medicine Service numbers/contact details.

Myocarditis: A complication of COVID-19 and long-COVID-19 syndrome as a serious threat in modern cardiology

Szarpak et al. *Cardiology Journal*

DOI: [10.5603/CJ.a2021.0155](https://doi.org/10.5603/CJ.a2021.0155)

A letter to the editor explaining the need for vaccination against covid19 to reduce the incidence of myocarditis being seen in the worlds populations following infection with covid19 and the long term effects on the heart

Effectiveness and safety of hypotension fluid resuscitation in traumatic hemorrhagic shock: A systematic review and meta-analysis of randomized controlled trials

Safiejko et al. *Cardiology Journal*

DOI: [10.5603/CJ.a2020.0096](https://doi.org/10.5603/CJ.a2020.0096)

Looking at hypotensive vs conventional resuscitation strategies in haemorrhagic shock trauma patients and which strategy is best to reduce mortality when giving fluids in these cases.

Diagnostic value of lactate dehydrogenase in COVID-19: A systematic review and meta-analysis

Fialek et al. *Cardiology Journal*

DOI: [10.5603/CJ.a2022.0056](https://doi.org/10.5603/CJ.a2022.0056)

Looking at the role of elevated LDH in assessing the severity of covid19 and outcomes post infection



Can't get hold of a paper you want to read? Get in touch with our team and we will see if we can source it for you.

Did you know you also get full access to every past publication of the resuscitation journal when you sign up for an ERC membership?

Upcoming Events

By Ahmed Elshaer (Social Media Rep)

[@ElshaerAh](#)

The Royal College of Emergency Medicine Annual Scientific Conference 2022

The Annual Scientific Conference will take place in Belfast on **3 - 6 October 2022** as a **hybrid** conference, with options for delegates to attend virtually or face-to-face. Pre-conference workshops taking place on 3 October, to register for them, click book now (face-to-face) below.

The event targets physicians, nurses, paramedics and students of these professions.

Find more [HERE](#)



The Royal College of
Emergency Medicine

The European Emergency Medicine Congress 2022



The European Emergency Medicine Congress (EUSEM 2022) is an annual congress that attracts over 3000 Emergency Medicine specialists from around the world. There are opportunities to learn about the new developments in emergency medicine, share best practices and network with like minded people.

The event targets physicians, nurses, paramedics, technicians, trainees and students of these professions.

More information is [HERE](#)

Citizen CPR Foundation webinar

Join host David Hiltz and special guests Dr. Anna Bichmann and Dr. Bernd W. Böttiger for a discussion about World Restart A Heart Day, which occurs on October 16th, and October's Shocktober theme as key opportunities to improve bystander CPR rates and awareness of sudden cardiac arrest around the globe.

Date: Tuesday, Sept. 13, 4 p.m. EST

Link to Webinar Registration [HERE](#)

