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The Young ERC is making a concerted effort in 2022 to start working with other groups associated with resuscitation. As part of this they have added the role of 'External Affairs Officer' to the young ERC committee. We are keen to collaborate with other groups on a variety of levels, be it simply supporting each other on social media and tweeting about each other's events, or working together on research projects or education webinar series.

The current external affairs officer is **Michael Smith**, who will be coordinating the communication with other associated groups, and he will be working alongside **Nikolaos Nikolaou** who is the External Affairs Officer for the ERC. If you have any ideas for groups you want us to collaborate with or events you want to work on together, then contact Michael at michael.smith83@nhs.net !

WHO ARE WE:

- Trainees 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/>



INTERNATIONAL WOMEN'S DAY

By Cristina Jorge-Soto (Young investigator Rep)



BACKGROUND

In 1991, an article published in the New England Journal of Medicine showed that in coronary health problems of equal age, comorbidity and severity, the therapeutic effort was much greater in men than in women. This generated an inequality in health caused by the health sector itself.

The diagnostic and therapeutic delay in women with acute myocardial infarct leads to an increase in the probability of dying, which is 58% higher than in men. A study published in 2020 by Nature Communication Journal reviewed all people treated in the Danish Health System over a period of 21 years. This study found that for 700 diseases there was a greater diagnostic delay in women than in men. For example, cancer was diagnosed four and a half years later in women than in men, and diabetes two and a half years later. Regarding pain, gendered norms are consolidated by hegemonic masculinity and andronormativity and it cause gender bias in the treatment.

Fulltext links

New England
Journal



Nature
Communication



Pain Res
Manage



TODAY

At present, the gender gap in research remains, although significant progress has been made in recent years.

Important gaps in knowledge persist because of the focus of science on the category sex or gender, and a misperception that sex disaggregation does not apply to other living organisms that can be classified by sex.

The gender gap and under-representation of women in human studies is well documented and in living organisms as well.

RESOURCES

The SAGER guidelines are designed to promote systematic reporting by sex and gender in research.

The guidelines provide researchers with a tool to standardise sex and gender reporting in scientific publications, where appropriate.

Find SAGER
Guidelines here



WHAT ABOUT YOU?

- Did you know SAGER Guidelines?
- Have you included a gender perspective in your research?

Waiting for your feedback on
twitter.com/young_erc

Your March ALS Update



@JeleonoraEk

In light of recent events this month we're going to talk about traumatic cardiac arrest.

The ERC traumatic cardiac arrest algorithm can also be used as a **peri-arrest algorithm** and is suitable for both **pre-hospital** and **in-hospital** scenarios.



Hypoxia



Tension pneumothorax

Hypovolemia

Tamponade



The main focus is to identify if there is a **reversible cause** and correct it.
We need to be looking for:



Remember these reversible causes need to be addressed **simultaneously** -

The algorithm goes through the 7 steps.



Bear in mind these should all be done **while CPR is ongoing!**

Address reversible causes simultaneously:

1. Control external catastrophic haemorrhage
2. Secure airway and maximise oxygenation
3. Bilateral chest decompression (thoracostomies)
4. Relieve tamponade (penetrating chest injury)
5. Proximal vascular control (REBOA/manual aortic compression)
6. Pelvic splint
7. Blood products / Massive Haemorrhage Protocol

START CPR

In steps 4 and 5 consider the 4 E's

Expertise?
Equipment?
Environment?
Elapsed time
since loss of vital signs < 15 min?

Pre-hospital: immediate transport to appropriate hospital
In-hospital: damage control surgery / resuscitation

Once **ROSC** is achieved, consider the need for **damage control surgery** followed by further **post-resuscitation care**.



To read more about traumatic cardiac arrest check out the ERC 2021 Guidelines on the 'Cardiac Arrest in Special Circumstances' section at <https://cprguidelines.eu/>

Five-fingers mnemonic for teaching BLS



Nino Fijako

by Kaushila Thilakasiri (BLS rep)

@kaushila87@

estimated reading time: **10 minutes**



Tell us about your background.

I am from Slovenia, a chicken-like country surrounded by Italy, Austria, Hungary and Croatia. I am working as a teaching assistant at University of Maribor, Faculty of Health Sciences, BLS instructor at SIM centre Community Health Centre Ljubljana, PhD student at University of Maribor, Medical faculty, member of ERC Science and Education Committees for BLS. My passion is discovering nature. I like to explore it in my running shoes, and the steeper the better. I'm also a trail blazer. My job is to make sure that the mountain trails are well maintained and passable.



That's great! So on to our main topic, what is the five-fingers mnemonic for teaching BLS

First, I want to tell you what a mnemonic is. It is a learning technique in the form of associations (for example letters) which assists in remembering content.

The most presented mnemonics are acronyms. In CPR related topics we use a lot of them. For example ABCDE, MONA, AVPU, FAST etc.

The 5 fingers mnemonic for teaching adult BLS is basically a transformation of the 2021 ERC BLS guidelines into a more associated form of remembering BLS steps. We all have 5 fingers on each hand and why not take advantage of this for teaching and remembering BLS steps. After all, we all learn how to count to 5 by using fingers.

In the mnemonic, each finger represents a main BLS step: 1) check safety, 2) check consciousness, 3) check breathing and call for help, 4) perform CPR, and finally 5) use AED. To make it more informative and visually appealing we added short key points and icons for each finger to associate with BLS actions.



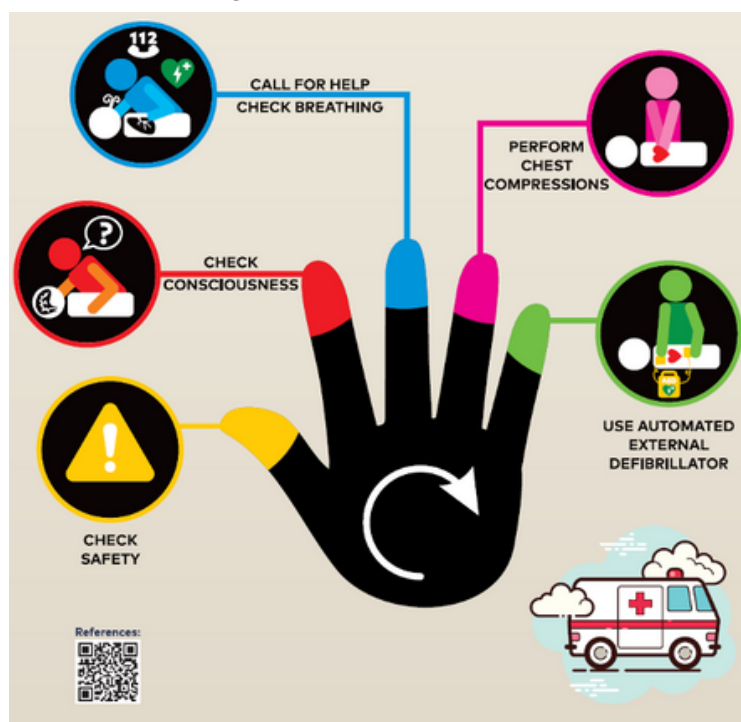
Do you have a target group to implement this teaching aid?

Yes, I have – the target group are children. At the moment I use the 5 fingers mnemonic to teach children at the primary and secondary level BLS. I believe it could also be used in teaching BLS to kindergarten children, students, laypersons and first responders.



May I ask, how did you come up with this idea?

The idea of using the hand as a learning technique is not new. The most well known hand mnemonic is the so-called "knuckle mnemonic" which is used for remembering the number of days in each month of the Gregorian Calendar. Each knuckle represents a 31-day month.



Infographic developed for five finger mnemonic

Five-fingers mnemonic for teaching BLS



Nino Fijako

by Kaushila Thilakasiri (BLS rep)

@kaushila87@

In medicine hand mnemonics have been used to remember segments of the liver by using the fist and the cardiac cycle by opening/closing both hands.

In 2021, when we were preparing a review paper in which we investigated smartphone applications for teaching children BLS, we came across a paper from 2011 where doctor Bollig and his team from Norway had already used the 5-fingers mnemonic for teaching kindergarten children first aid. (1)



At that time our main goal was to use fingers as a tool for evaluating evidence-based BLS in each app and provide the readers more visual results. More can be found here:

<https://mhealth.jmir.org/2021/7/e25437/>

After that I started developing the fingers mnemonic for teaching children BLS actions. Above you can see the current version. At this point I want to give credit to the Slovenian (Community Health Center Kranj) and Spanish (University of Vigo) team who are also using the fingers for teaching BLS.

Dr. Bollig and his team from Norway used the 5-fingers mnemonic for teaching kindergarten children first aid.



How do you plan to assess the usefulness/appropriateness of this?

I have two methods. First, perform a Delphi study. The goal is an assembled team of experts who will in rounds provide feedback on how to improve the 5 fingers mnemonic for teaching children BLS. The second method is to conduct a randomised control study and present results to the BLS community. At the moment I am doing a small pilot study just to see if retention of BLS knowledge is better when the mnemonic is used.



There is already a method to teach BLS. What is the additional advantage this mnemonic provides or which gap does it fill?

This is true. Various teaching approaches are used to teach BLS contents, but the optimal format has not yet been determined. Retention of BLS knowledge is still low. BLS educators need a new learning approach to improve retention of BLS knowledge and in the end improve bystander response rates which is still low because of low self-efficacy and knowledge of safely conducting BLS. Maybe a mnemonic is the trigger for this chain reaction?



Five-fingers mnemonic for teaching BLS



Nino Fijako

by Kaushila Thilakasiri (BLS rep)

 @kaushila87@

My belief is that mnemonic as a learning technique could improve retention of BLS knowledge. There are different forms of mnemonics which should be investigated. For example, I am very keen on the Loci method as a mnemonic approach for visualising and recalling items (for example BLS actions) at specific points along a familiar point on the road. I hope that I could present our results of using the Loci method for teaching children BLS at the 2022 ERC conference.

At the moment the fingers mnemonic for teaching children BLS is available only in paper form, which is a disadvantage. I wish to change it this year because nowadays children are technology savvy. Transforming the mnemonic into smartphone games could improve the retention of BLS knowledge and in the long run, save lives.



Do you believe mobile game applications like PUBG or Facebook games would play a role in enhancing CPR learning?

Yes, I believe that smartphone games like PUBG mobile could be also great approach for teaching BLS. For example, in 2020, a Back2Life hack in a form of BLS elements was added to one of China's most famous games, Blood River. When gamers lost their life, they could perform CPR on their characters to bring them back to life. During the two weeks, over 3 million gamers performed BLS training and learned how to perform BLS!



That's an incredible success story and hopefully will encourage others to think outside the box and help spread BLS training principles. We can't wait to see how the 5 finger mnemonic develops. Thanks so much for talking to us!



**THE HACK
THAT GOT
3 MILLION
GAMERS TO
LEARN CPR**

Literature references:

1. Bollig G, Myklebust AG, Østringen K. Effects of first aid training in the kindergarten--a pilot study. Scand J Trauma Resusc Emerg Med. 2011 Feb 28;19:13. doi: 10.1186/1757-7241-19-13. PMID: 21356047; PMCID: PMC3060136.
2. Fijačko N, Masterson Creber R, Gosak L, Štiglic G, Egan D, Chaka B, Debeljak N, Strnad M, Skok P. Evaluating Quality, Usability, Evidence-Based Content, and Gamification Features in Mobile Learning Apps Designed to Teach Children Basic Life Support: Systematic Search in App Stores and Content Analysis. JMIR Mhealth Uhealth 2021;9(7):e25437

Come join us **tomorrow** for an update on Temperature Control after Cardiac Arrest!



Temperature Control after CA in adults from cutting edge science to the latest European Guidelines

March 30, 2022
19.00h – 20.30h CET

Join Niklas Nielsen, Jerry Nolan, Christian Hassager and Claudio Sandroni. In this session, well known experts from ACVC, ERC and ESICM will guide you to an amazing journey from the publication of the latest science on temperature control after ROSC to the latest 2022 European Guidelines on Temperature Control after CA in adults.

Speakers

- **TTM 2 results**
Niklas Nielsen – MD, PhD (*Lund, Sweden*)
- **ILCOR Systematic review and CoSTR**
Jerry Nolan – MD, PhD (*Warwick, UK*)
- **Effects of hypothermia on the cardiovascular system**
Christian Hassager – MD, PhD (*Copenhagen, Denmark*)
- **European rapid Guideline on temperature management post Cardiac Arrest**
Claudio Sandroni – MD (*Rome, Italy*)

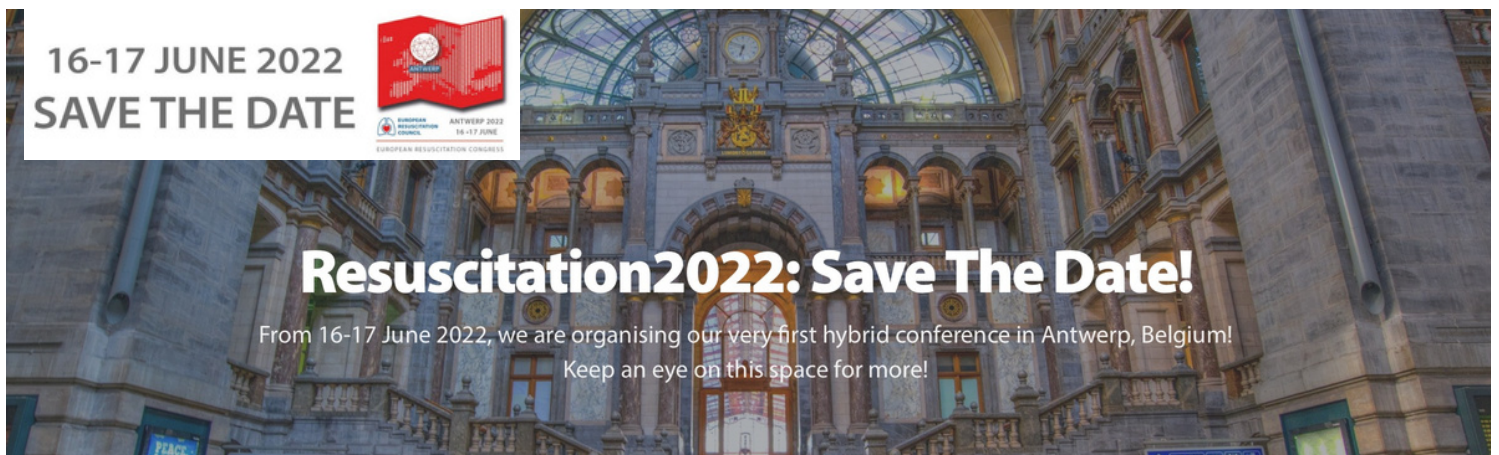
Moderators

- Anna Bichmann (*Berlin, Germany*)
- Robert Greif (*Bern, Switzerland*)
- Jasmeet Soar (*Bristol, UK*)
- Anastasia Spartinou (*Crete, Greece*)

Register for free via CoSy



UPCOMING EVENTS!



ERC Congress 16-17 June 2022, Antwerp Belgium (hybrid) erc.edu

ERC is organising their very first hybrid conference! Registration is now open for both virtual and in-person tickets so don't miss your chance to join us!

Toronto Anaesthesia Symposium 2-3 April 2022

<https://facmed.registration.med.utoronto.ca>

Topics include an update on airway guidelines, discussions about high flow nasal o₂ and tackling the thoracic thyroid!

Emergency Medicine Congress 21-23 April 2022, Graz (Austria)

<https://www.agn.at/kongress/sessions/>

The Association for Emergency Medicine hosts its 10th congress dedicated to the practice and science of emergency medicine. International speakers discuss resuscitation topics such as eCPR, mitochondria in reperfusion, advances in trauma resuscitation, secrets of successful research groups and RCTs in critical care. The joint keynote on landmark papers will be held by Jean-Louis Vincent (Critical Care, ISICEM) and Rob Mac Sweeney (Critical Care Reviews). For international guests live language interpretation is available for the scientific sessions.

The 5th international symposium on post cardiac arrest care 12-13 May 2022, Lund Sweden www.mkon.nu/postcare2022

The symposium will be a two-day event with an update on neuroprognostication on day one, and presentation of novel follow-up and rehabilitation data on day two. A separate course on simplified continuous EEG (aEEG) will be held the day before. The target audience is all professionals engaged in the care and follow-up of cardiac arrest survivors and their relatives in Sweden and abroad.

Publication and Research Highlights



by Jessica Rogers (Chair)

 @Dr_JRogers

Dispatcher Self-assessment and Attitude Toward Video Assistance as a New Tool in Simulated Cardiopulmonary Resuscitation

Hannes Ecker et al, *Western Journal of Emergency Medicine*

Link: <https://escholarship.org/uc/item/5kx9x0c6>

This quantitative study looked at video assisted CPR as an adjunct for EMS dispatchers. In general, dispatchers welcome the idea of using video link to enhance their understanding of the scene, but it did not result in improvement in guideline compliant CPR quality.

The effectiveness of targeted temperature management following cardiac arrest may depend on bystander cardiopulmonary resuscitation rates

Bernd Bottiger et al, *European Journal of Anaesthesiology*

DOI: [10.1097/EJA.0000000000001663](https://doi.org/10.1097/EJA.0000000000001663)

They looked at all large trials focussing on targeted temperature management and the TTM trials to see if there was a relationship between bystander CPR rate and the effects of TTM. In countries where the rates are low, and therefore the down time very long, is TTM more useful? Read to find out.

First responder systems can stay operational under pandemic conditions: results of a European survey during the COVID-19 pandemic

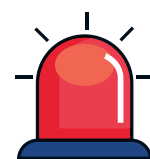
Metelmann et al., *Scand J Trauma Resus Emerg Med*

DOI: <https://doi.org/10.1186/s13049-022-00998-3>

A recent [open-access](#) publication from the ERC Research NET! This study investigated the impact of the COVID-19 pandemic on first responder systems across Europe for OHCA and how these systems adapted to protect first responders as well as patients. The investigators found that first responder system were strongly affected and various approaches were observed to secure patient and first responder safety.



Coming soon: Call for Abstracts for YERC F.I.R.S.T Competition!



Didn't have anything to submit for the abstract call for the ERC congress? No problem! We will be running the highly successful Future In Resuscitation Science and Technology competition again this year in Antwerp and anyone with an idea can submit for a chance to pitch to a panel of experts. Keep your eyes peeled for details and rules coming soon.

Connect Your Research

Our research reps would love to **build a community for future/current researchers** to collaborate and discuss ideas. Help each other to build publications by sharing skills and time in exchange for learning the ropes and getting your name on some research!

Want to get started in research and find out how it works?

Need someone to help edit/language check your article?

Contact us for help!

Over the next year we will be strengthening our ties with **Research NET** and other student groups. If you have ideas of how we can collaborate and help each other we would love to hear from you!

Do you have a cardiac arrest related project and want to share it on our platform?

Contact us with details to be featured!