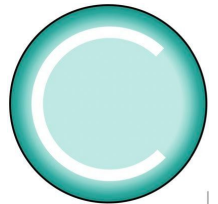


Using frailty to enhance advance resuscitation decisions

Dr Sarah Ibitoye
Acute and Perioperative Medicine Consultant
North Bristol NHS Trust
CLARITY research



“Reversing a death is not the same as restoring a life”

The hidden harms of CPR by Sunita Puri

The New Yorker 2023

Background - we are having resus discussions all the time

— — —

"If a patient is admitted to hospital acutely unwell or becomes clinically unstable in their home or other place of care, and they are at foreseeable risk of cardiac or respiratory arrest, a judgement about the likely success of CPR in restarting breathing and circulation and its benefits, burdens and risks should be made as early as possible."

"if a patient has an existing condition that makes cardiac or respiratory arrest likely, establishing a management plan in advance will help to ensure that the patient's wishes and preferences about treatment can be taken into account and that, if appropriate, a DNACPR decision is made and recorded."

GMC: Professional Standards for Doctors

Background - processes have been c

— — —

do not resuscitate covid

< All Images News Videos More Tools

About 150 results (0.26 seconds)

BBC
Covid-19: Concern over 'do not resuscitate' decisions during pandemic
Individuals' human rights may have been breached in more than 500 cases where "do not resuscitate" decisions were made during the Covid...
18 Mar 2021

The Guardian
Fury at 'do not resuscitate' notices given to Covid patients with learning disabilities
Vulnerable people have encountered 'shocking discrimination' during pandemic, says Mencap charity.
13 Feb 2021

BBC
Covid-19: 'We're traumatised by thought of Nan dying alone'
Miranda Evans lost three relatives to hospital-acquired Covid-19, including her grandmother.
29 Mar 2023

Sky News
COVID-19: Do not resuscitate orders might have been put in place without consent, watchdog says
Patients may have been under inappropriate "do not resuscitate orders" by doctors making blanket decisions during the first wave of the...
3 Dec 2020

The BMJ
Many "do not resuscitate" decisions in England during pandemic ignored equality and human rights laws, says CQC
BMJ 2021; 372 doi: <https://doi.org/10.1136/bmj.n754> (Published 18 March 2021) Cite this as: BMJ 2021;372:n754.
18 Mar 2021

Background - processes have been criticised recently

CQC review 2022

Recommendation:

Clinicians, professionals and workers must have the knowledge, skills and confidence to speak to people about and support them in making DNACPR decisions.

-To do this there needs to be clear and consistent training, standards, guidance and tools for the current and future workforce.

1. We need to make a judgement of the likely success of CPR
2. We need to use standards, guidance and tools in our discussions about CPR

Can we predict survival from cardiac arrest?

Age

By age group (years):

0-15	133	66	49.6 (41.3, 58.0)
16-64	3,866	1,167	30.2 (28.8, 31.7)
65-74	2,999	669	22.3 (20.9, 23.8)
75-84	3,474	598	17.2 (16.0, 18.5)
85+	1,735	273	15.7 (14.1, 17.5)

National Cardiac Arrest Audit 2021-22 (survival to discharge)

Can we predict survival from cardiac arrest?

Comorbidity

Effects of pre-arrest comorbidities on 90-day survival of patients resuscitated from out-of-hospital cardiac arrest

Lee et al. EMJ 2010.

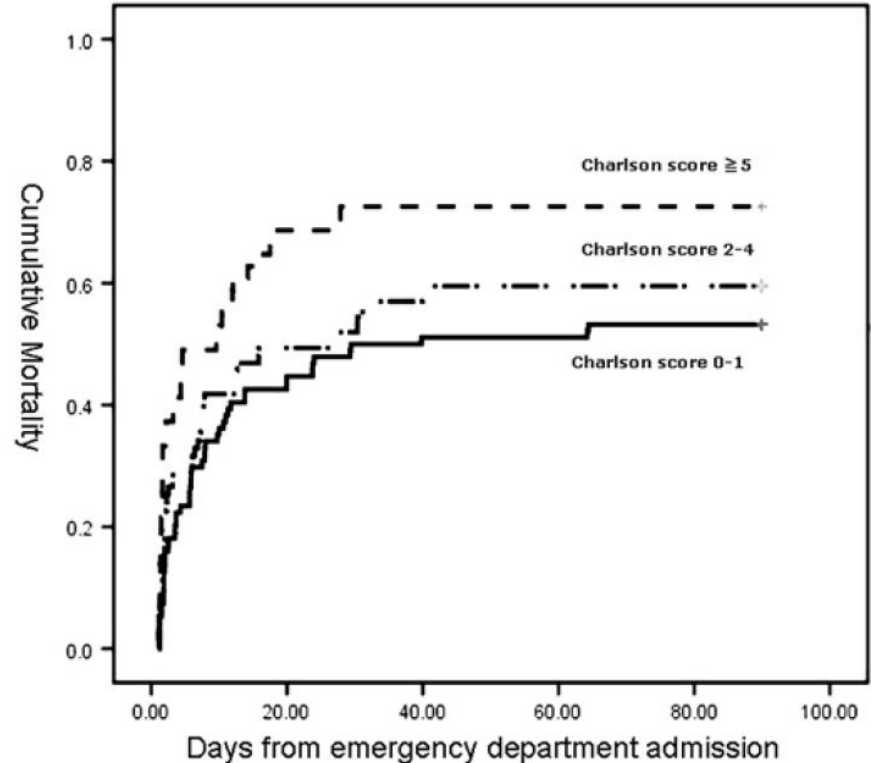
224 patients who survived 24 hours after ROSC

Predictors of mortality at 90 days:

Cirrhosis (HR 4.36)

Malignancy (HR 1.64)

CCI ≥ 5 (HR 1.60)



Can we predict survival from cardiac arrest?

Cardiac arrest rhythm

Survival to hospital discharge

Subgroup	Number of individuals*	Number of hospital survivors	Percentage (95% confidence interval)
Overall	12,208	2,773	22.7 (22.0, 23.5)
By presenting rhythm:			
Shockable - VF/VT	2,024	1,036	51.2 (49.0, 53.4)
Non-shockable - asystole	2,428	225	9.3 (8.2, 10.5)
Non-shockable - PEA	6,281	924	14.7 (13.9, 15.6)

National Cardiac Arrest Audit 2021-22

Can frailty predict survival from cardiac arrest

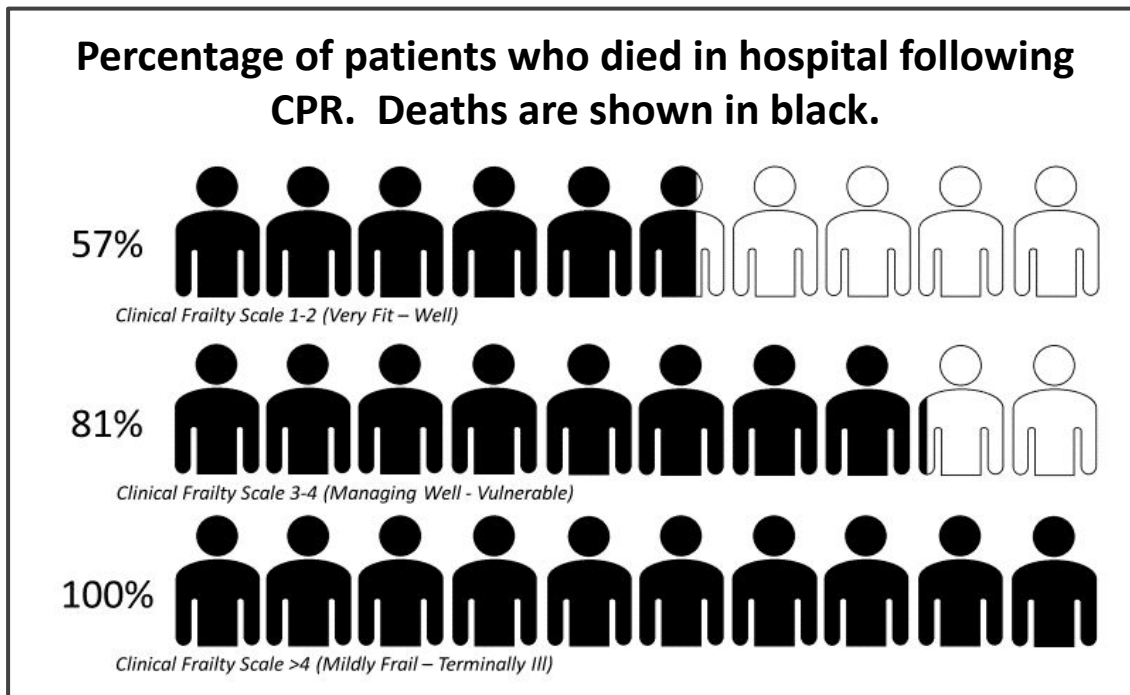
Frailty status predicts futility of CPR in older adults

Ibitoye et al. Age and Ageing 2020.

90 patients > 60 years

44% of patients were frail (CFS > 4)

No patients with frailty survived to discharge



Can frailty predict survival from cardiac arrest

[Review](#) > Resuscitation. 2021 Oct;167:242-250. doi: 10.1016/j.resuscitation.2021.06.009.

Epub 2021 Jun 21.

Prognostic association of frailty with post-arrest outcomes following cardiac arrest: A systematic review and meta-analysis

Fabrice I Mowbray¹, Donna Manlongat², Rebecca H Correia³, Ryan P Strum⁴, Shannon M Fernando⁵, Daniel McIsaac⁶, Kerstin de Wit⁷, Andrew Worster⁸, Andrew P Costa⁹, Lauren E Griffith¹⁰, Matthew Douma¹¹, Jerry P Nolan¹², John Muscedere¹³, Rachel Couban¹⁴, Farid Foroutan¹⁵

Affiliations + expand



PMID: 34166743 DOI: 10.1016/j.resuscitation.2021.06.009 

> Resusc Plus. 2022 Jul 1;11:100266. doi: 10.1016/j.resplu.2022.100266. eCollection 2022 Sep.

Outcomes in adults living with frailty receiving cardiopulmonary resuscitation: A systematic review and meta-analysis

Joseph Hamlyn¹, Charlotte Lowry¹, Thomas A Jackson^{1,2}, Carly Welch^{1,2}

Affiliations + expand

PMID: 35812717 PMCID: PMC9256816 DOI: 10.1016/j.resplu.2022.100266  

[Free PMC article](#)

Frailty was associated with an around 3 times higher risk of in-hospital death following cardiac arrest

No studies looked at morbidity or quality of life measures

What are the gaps in the existing research about resuscitation and frailty?

No studies were multicentre

Few were prospective - those were small

Sub-analyses of cardiac disease patients and perioperative cardiac arrest are needed

Other outcomes - morbidity or quality of life - need to be measured

Feasibility of using existing findings in clinical practice is not described

James Lind Alliance

Cardiac arrest -

“What factors best predict neurologically intact survival following cardiac arrest in adults?”

Frailty -

“How can frailty measures be used by health care practitioners, older adults and family/caregivers to inform treatment and care decisions?”

Current work - Research Capability Funding NBT

Current work

1. Retrospective review of recent medical admissions of ≥ 65 years
 - a. Do patients living with frailty have RESPECT forms, and are they for resus?
 - b. Is frailty written on the form as part of the reasoning?
2. PPI work
 - a. What outcomes are important to patients when having resus discussions?
 - b. How do people want the information?
 - c. Would a decision aid be acceptable?
3. Can CFS be added to the National Cardiac Arrest Audit as a data field?

Future plans → NIHR grant application

Multicentre prospective observational study

Looking for an association between Clinical Frailty Scale and cardiac arrest outcomes:

- survival to discharge and 1-year
- Morbidity - modified Rankin score on discharge and after
- Patient reported quality of life in survivors

What is the likely survival at each point on the CFS

Multicentre prospective observational study

Plan A:

CFS added as data field in the National Cardiac Arrest Audit
Data collection from Spring 2024 onwards

Plan B:

Multicentre study 5-10 hospitals (utilise sites recruited to AIRWAYS 3 trial)

More costly and labor-intensive, smaller study population

Feasibility study using a decision aid for resuscitation discussions

Incorporate the findings of the initial study into a decision aid

Local feasibility study - is it useable? Acceptable?

... does using the decision aid affect patient experience?

... does using the decision aid reduce variability in decision making?

Thanks to...

Edd Carlton

Ben Carter

Jaz Soar

Jerry Nolan

NBT – Research Capability
Funding



Questions?