



Critical Care Outreach Nurse Specialists: The new gatekeepers of the eCPR service.

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OUTREACH

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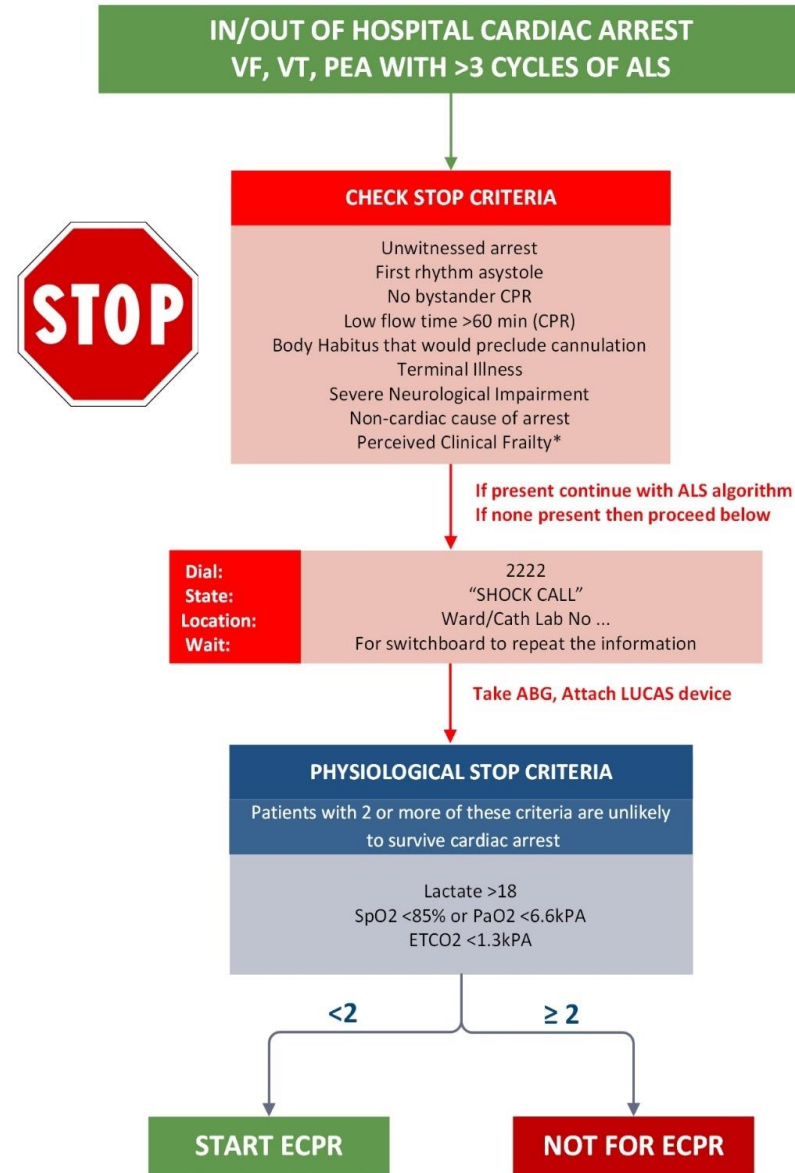
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History

- ▶ Survival from cardiac arrest remains poor
- ▶ eCPR (extracorporeal cardiopulmonary resuscitation) was introduced at Harefield Hospital in 2012
- ▶ It's utilization has historically been inconsistent
- ▶ Variability in screening, activation, cannulation and post resuscitation care.

Objectives

- ▶ New eCPR standardized algorithm designed by the eCPR Consultants, Specialist Registrars and Specialist Nurse team
- ▶ Standardised cannulation procedure with new training program
- ▶ The Critical Care Outreach Team (CCOT) selected as the gatekeepers for screening
- ▶ Identify the suitability of potential patients against a strict set of criteria.



* Formal frailty score not achievable in cardiac arrest. Rapid clinical assessment to be made by clinical team using immediately available information only.

Methods

- ▶ CCOT are a group of highly experienced nurse specialists
- ▶ Advanced training in life support and the management of medical emergencies
- ▶ Members of the cardiac arrest team, present at every cardiac arrest
- ▶ Trained and educated in running the algorithm.

STOP Criteria



CHECK STOP CRITERIA

Unwitnessed arrest
First rhythm asystole
No bystander CPR
Low flow time >60 min (CPR)
Body Habitus that would preclude cannulation
Terminal Illness
Severe Neurological Impairment
Non-cardiac cause of arrest
Perceived Clinical Frailty*

If present continue with ALS algorithm
If none present then proceed below

Results

April 2018 to April 2022

- ▶ 22 eCPRs
- ▶ 2 survivors at 6 months
- ▶ Survival rate 9.1%

April 2022 to April 2023

- ▶ 13 eCPRs
- ▶ 9 survivors at 6 months
- ▶ Survival rate 69.2%

Small number of missed opportunities for eCPR were identified. CCOT absence (due to sickness or lack of cover) identified as a discerning factor.

Concluding Statement

Employing the CCOT as the gatekeepers of the eCPR service has allowed for consistent, standardized screening and subsequent activation for eCPR.

This has now been incorporated as standard protocol in our hospital.

Limitations

- ▶ A retrospective review of a single centre
- ▶ Highly selective patient inclusion with a lack of comparator population
- ▶ The hospital population is significantly different from the rest of the country with a higher proportion of younger patients with primarily cardiac issues
- ▶ The small number of patients is open to overestimation of effect size and sampling bias
- ▶ Unclear if these results could be replicated more broadly across a region.

Keep Watching!

Full paper currently being peer reviewed in the British Journal of Anaesthesia entitled;

'Improving quality and outcomes of Extra Corporeal Cardiopulmonary Resuscitation in refractory cardiac arrest: The Phoenix ECPR Project'.

Any Questions?