VICAP-CPR: Validity of **I**CU **C**linician's **A**ppraisal of **P**roportionality in **CPR**

Short background of the study:

At the ICU level, both physicians and nurses can have valuable insights into what the likely prognosis is of the OHCA patients they are treating. In subgroups with a poor prognosis (e.g. non-shockable rhythms in older patients) it is possible that the added value of the multimodal ICU neuroprognostication is very limited.

Exploring the prognostic value of the clinical perception of ICU doctors and ICU nurses regarding appropriateness of CPR and their prognostication of functional outcome relative to multimodal ICU neuroprognostication might help to refine guidance towards resuscitation decision making and towards ICU management after ROSC in general. The implication for intensive care could be that policy decisions could perhaps be made earlier in several situations.

The main research questions of this study are:

- To what extent is the perception of (in)appropriateness of CPR by ICU doctors and ICU nurses associated with (1) their clinical appraisal of the frailty, the quality of life and the presence of severe comorbidities of the STEPCARE patient, (2) the characteristics of the ICU clinician, and (3) the cardiac arrest characteristics (witnessed arrest, bystander CPR, initial rhythm). (We define inappropriateness of CPR as resuscitation efforts not proportionate to the expected prognosis of the patient in terms of survival or quality of life.)

- What is the concordance between the perception of (in)appropriateness of CPR and the result of the multimodal neuroprognostication as it is performed in STEPCARE?

- What is the prognostic value of the perception of (in)appropriateness of CPR? *In other words:* if an ICU doctor or ICU nurse finds a resuscitation disproportional to what can be expected regarding outcome, does this really mean that the patient has a poor outcome?

- What is the opinion of the ICU doctor and ICU nurse regarding 6-month survival, functional outcome, and quality of life? Does multimodal neuroprognostication provide additional prognostic value, especially in the subgroup of non-shockable rhythms?

To accomplish this ICU nurses and ICU doctors taking care of a STEPCARE patient **DURING THE FIRST 24 HOURS AFTER ICU ADMISSION** are invited to complete a **paper survey taking less than 3 minutes.** So the doctors and nurses have time during their whole shift to complete this short survey. This generally means at least one nurse for each shift during the first 24 hours, and a number of doctors: ICU consultants as well as doctors in training taking care of/treating the patient. The survey can be found at the end of this document.

We did our very best to facilitate your participation as much as possible:

- We don't want you to loose time entering data. **ALL data entries will be handled by our team in Ghent.** We only ask to scan the completed surveys and send them to **VICAPCPR.study@uzgent.be**.

- **The local study coordinator is only requested to add the STEPCARE number of the local patient to each completed survey** (for instance GNT0021 for Ghent). This is essential to link the survey data with the STEPCARE data of the patient.

- We can help in translation of the survey to the local language.

From our side we can guarantee you that we are a motivated research team with a long-standing main interest in ethical decision making, appropriateness of care, long term outcomes and quality of life after intensive care reflected in conducting large scale international studies such as the APPROPRICUS study in 2011 about perceptions of inappropriate care in 1651 intensive care unit clinicians in 10 countries, the DISPROPRICUS study in 2018 (2992 clinicians in 68 ICUs in 13 countries) and the REAPPROPRIATE study in 2020 (5099 clinicians in 288 emergency care centres in 24 countries).

The study has been registered in clinicaltrials.gov (NCT07026773) and is currently already recruiting.

In many countries no additional ethical approval is needed, since we are only surveying healthcare professionals, not patients. If however in your country ethical approval is needed for this study we will try to assist you as much as possible.

We really hope you join this effort to look into the validity of clinical reasoning by our ICU staff! The comment we receive a lot from ICU nurses and doctors is: "Finally a study that asks our opinion, not just data entry".

Don't hesitate to contact us if you have additional questions. The survey can be found on the last page of this document. The protocol including the statistical analysis plan will be sent to you as soon as you let us know that you are interested.

Many greetings from Ghent University Hospital, Belgium

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VICAP-CPR survey
DATE: ../../…. TIME: (24-hour clock) …/…

1. **What is your age in years?**

20-25	26-30	31-35	36-40	41-45
46-50	51-55	56-60	61-65	Older than 65

2. **To which gender category do you most identify?**
   0 Male 0 Female 0 Prefer not to say
3. **How many years of clinical experience do you have in the ICU?** …….. years
4. **What is your professional background?**
   0 Doctor
   0 Nurse
5. What was **your very first** clinical perception regarding the **frailty** of the patient?
   0 Terminally ill, or very severely frail, or severely frail
   0 Moderately frail, or mildly frail, or vulnerable
   0 Managing well, or well, or very fit
6. **According to you,** based on information received from family, bystanders or team, what is **your** opinion regarding the **quality of life** of the patient **before** the cardiac arrest?
   0 Poor
   0 Good
   0 Don't know
7. **According to you,** does the patient have one or more **severe** pre-existing illnesses?
   0 Yes 0 severe COPD 0 severe heart failure 0 severe dementia 0 severe liver cirrhosis
   0 chronic dialysis 0 severe neuromuscular disorder, e.g. amyotrophic lateral sclerosis (ALS)
   0 No
8. The attempt to resuscitate this patient is proportionate to the expected prognosis of the patient in terms of survival and quality of life
   0 I completely agree
   0 I agree
   0 I disagree
   0 I completely disagree
9. **In my opinion, within six months,** this patient
   0 will have no symptoms at all
   0 will be able to carry out all usual duties and activities
   0 will be able to look after own affairs without assistance, but will be unable to carry out all previous activities
   0 will require some help, but will be able to walk unassisted
   0 will be unable to attend to own bodily needs without assistance OR will be unable to walk unassisted
   0 will require constant nursing care and attention, or will be bedridden
   0 will have died
10. **In my opinion, within six months,** this patient will have a good quality of life
    0 I completely agree
    0 I agree
    0 I disagree
    0 I completely disagree

To be completed by study team: STEPCARE patient nr. …….