The STEPCARE-trial criteria for a likely poor outcome

In the STEPCARE trial the prognosis is considered likely poor if criteria A, B and C stated below are all fulfilled.

A. Confounding factors such as severe metabolic derangement and lingering sedation have been ruled out**.**

B. FOUR-Score Motor: The patient has no response**,** a stereotypic extensor response or a sterotypic flexor response to bilateral central and peripheral painful stimulation at ≥72 hours after randomization (FOUR-M 0-2)**.**

C. At least two of the below mentioned criteria of a poor prognosis are present:
C1. Bilateral absence of pupillary and corneal reflexes at 72h after randomization
C2. Bilaterally absent SSEP N20 potentials
C3. Early status myoclonus within 72h of randomization defined as a continuous and generalized myoclonus persisting for 30 minutes or more.
C4. A highly malignant EEG-pattern without reactivity to sound and painful stimulation on full-montage routine EEG or on simplified continuous EEG more than 24h after randomization and after effects of lingering sedation have been excluded:

> **i.** Suppressed background (amplitude <10 microV, >99% of the recording) with or without superimposed discharges**.**
> **ii.** Burst-suppression (periods of suppression with amplitude <10 microV constituting at least 50% of the recording) with or without superimposed discharges**.**

C5. Neuroimaging: either a CT or MRI with signs of diffuse and extensive hypoxic ischemic injury
C6. Serum-NSE higher than 60 ng/mL at either 48h or 72h after randomization

Prognostication Checklist

Date of prognostication (YY/MM/DD): _____

Time of prognostication (24h clock): _____

Criterium A, confounding factors

Confounding factors such as severe metabolic derangement and lingering sedation have been ruled out — Yes ☐ No ☐

When was the last given dose of a sedative agent prior to prognostication _____ hours

Criterium B, FOUR-Score motor >72 hours after CA

Evaluate the best motoric response to a bilaterally given painful stimulus both centrally and peripherally in patients who are not awake and obeying commands

- ☐ **4.** Makes sign (thumbs-up, fist or peace sign)
- ☐ **3.** Localizes painful stimulus
- ☐ **2.** Flexion response to pain
- ☐ **1.** Extension response to pain
- ☐ **0.** No response to pain or generalized status myoclonus

Criteria C (At least 2)

	Poor outcome likely					
C1. Corneal reflexes*	Bilaterally absent	☐	Present	☐	Not assessed	☐
C1. Pupillary reflexes*	Bilaterally absent	☐	Present	☐	Not assessed	☐
C2. SSEP N20	Bilaterally absent	☐	Present	☐	Not assessed	☐
N20 amplitudes (if available)	Left _____microvolt		Right _____microvolt		Not assessed	☐
C3. Early status myoclonus < 72h	Present	☐	Absent	☐	Not assessed	☐
C4. Routine EEG highly malignant and unreactive**	Yes	☐	No	☐	Not assessed	☐
C4. Continuous EEG highly malignant and unreactive**	Yes	☐	No	☐	Not assessed	☐
C5. CT with diffuse and extensive hypoxic brain injury***	Yes	☐	No	☐	Not assessed	☐
C5. MRI with diffuse and extensive hypoxic brain injury***	Yes	☐	No	☐	Not assessed	☐
C6. High serial NSE	Yes	☐	No	☐	Not assessed	☐
NSE concentrations (ng/mL)	**24h:**_____		**48h:**_____		**72h:**_____	

*C1: Bilaterally absent pupillary and bilaterally absent corneal reflexes is considered one criterion
**C4: Highly malignant EEG patterns can be diagnosed either with routine or continuous EEG
***C5: Neuroimaging is considered one criterion regardless of whether CT and MRI are pathological

Does this patient fulfil the STEPCARE criteria for a likely poor neurological outcome?

Yes ☐ No ☐