

TITLE (SHORT, 200 CHARACTERS MAX.):

<TITLE> THE EFFECT OF ANTIBIOTIC PROPHYLAXIS AND BETA BLOCKADE IN PREVENTING VENTILATOR ASSOCIATED PNEUMONIA FOLLOWING OHCA

MAIN HYPOTHESES TESTED (2 MAX)

Ventilator associated pneumonia is common amongst patients mechanically ventilated following an OHCA with 53% of patients in TTM1 developing pneumonia, severe sepsis or septic shock with an associated increase in mortality. There are a number of potentially modifiable factors which could influence the incidence of early onset pneumonia such as airway management, beta blockade or institution of prophylactic antimicrobial therapy such as antibiotics, SDD/SOD or CHX. We will examine the incidence of early onset pneumonia in the two temperature arms. Our hypothesis is that we will identify modifiable factors associated with early onset pneumonia.

MULTICENTER [YES]

All participating sites

PICO

Patients:	All patients in TTM2
Intervention/Exposure/Prognostic factor:	Exposure to antimicrobial therapy, beta blockade and prehospital airway management, tracheal tube type e.g . subglottic aspiration
Comparison:	Early onset pneumonia in 33 vs fever avoidance
Outcome:	Diagnosis of pneumonia in the first 7 days Secondary duration of ventilation, length of stay, mortality

DATA NEEDED FOR THE ANALYSIS

(SPECIFY VARIABLES AND MOTIVATE ANY PROPOSED ADDITIONS TO THE ECRF)

Diagnosis of pneumonia, antibiotic prescription for pneumonia, microbial sampling

Prehospital airway management – ET vs supraglottic airway device

Use of beta blockers – pre-cardiac arrest, during first 7 days of ICU

Different tracheal tube designs – subglottic suction, continuous cuff pressure monitoring, material, cuff type

Use of prophylactic antibiotics (unit policy?), SDD, SOD, CHX

LOGISTICS – HOW WILL ADDITIONAL DATA BE GATHERED?

Data should be recoded through eCRF

BRIEF STATISTICAL ANALYSIS PLAN AND SAMPLE SIZE ESTIMATE

Please send this form as a pdf to ttm2@ttm2trial.org

Multivariate analysis will be used to explore the risks of pneumonia in those with different exposures to the variables described above. The high rate of pneumonia will allow adequately powered analysis to disentangle these effects.

Within the TTM2 cohort we expect an event rate of around 50% in survivors or 450 patients, which would allow us to include all covariates in a multivariable logistic regression analysis.

FUNDING (IF APPLICABLE)

None

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