
Quality of life and long-term outcomes after hospitalization for COVID-19 in Brazil: a preliminary report - **NCT04376658**

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Conflicts of interest

- **Financial**

Research grants from the Brazilian Ministry of Health

- **Intellectual**

Researcher in the field of post-critical care outcomes

Quality of life and long-term outcomes after hospitalization for COVID-19: coalition VII prospective cohort study

- Prospective cohort study nested in 5 COVID-19 RCTs
- 55 centers in Brazil
- Adult survivors of hospitalization due to COVID-19
- One-year follow-up
- Assessment of quality of life and long-term outcomes



Population

Coalition I RCT

- ≤ 14 days since symptom onset
- Needing either no oxygen or ≤ 4 L/min of supplemental oxygen

Coalition II RCT

- ≤ 14 days since symptom onset
- Needing oxygen supplementation > 4 L/min, HFNC; NIV; or MV

Coalition III RCT

- Needing mechanical ventilation
- Within 48 hours of meeting criteria for moderate to severe ARDS

Coalition IV RCT

- ≤ 14 days since symptom onset
- D-dimer ≥ 3 x the upper limit of normal

Coalition VI RCT

- Confirmed pneumonia
- Need for oxygen to keep $\text{SPO}_2 > 93\%$, or MV for < 24 hours before the randomization
- ≥ 2 altered inflammatory tests (RCP, Ferritin, D-dimer, or LDH)

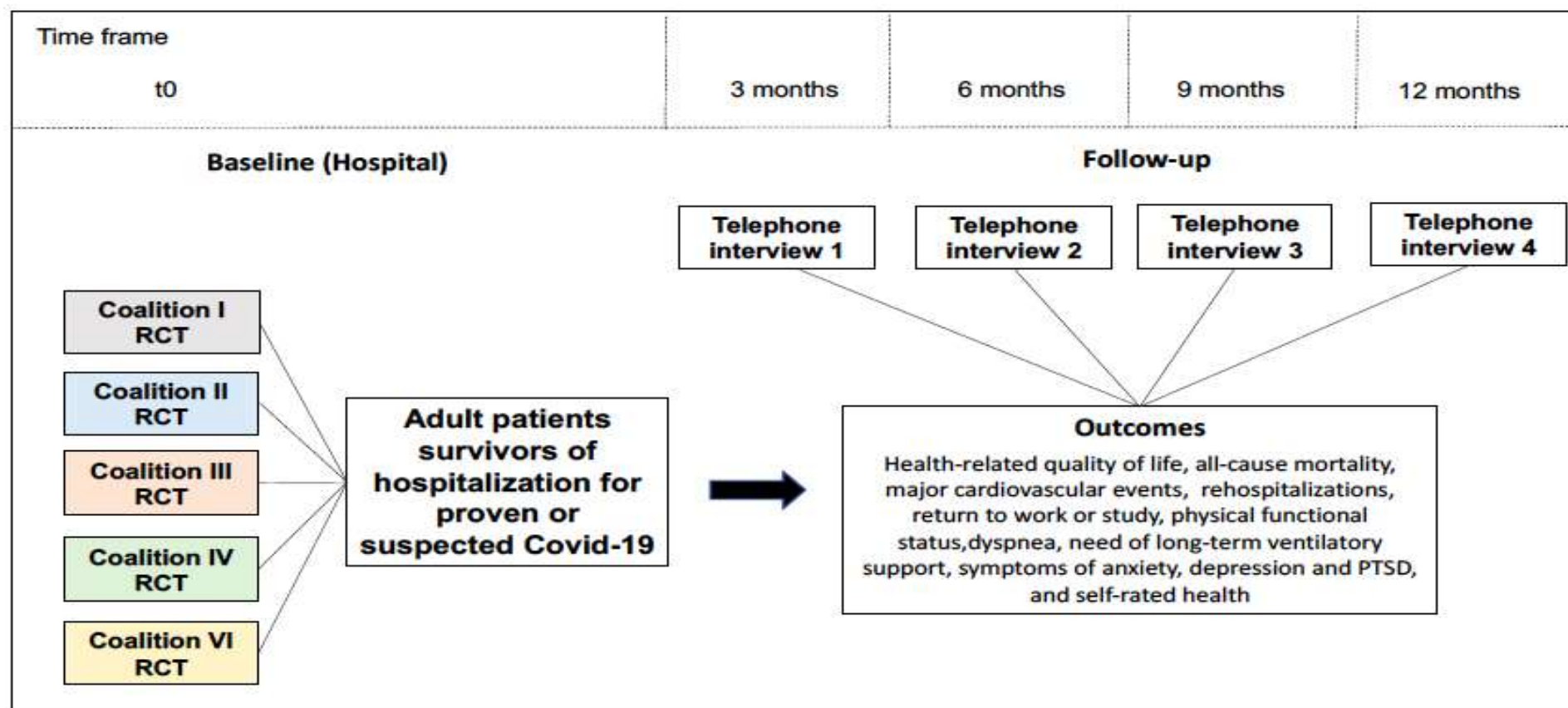
Outcomes

- **Primary Outcome**
One-year utility score of EQ5D3L
- **Secondary outcomes**
Survival
Major cardiovascular events
Rehospitalizations
Physical functional status (IADL Lawton & Brody)
Dyspnea (MRC scale)
Need of long-term ventilatory support
Symptoms of Anxiety and depression (HADS)
Symptoms of PTSD (IES-R)
Self-rated health (EQ5D3L – VAS)
Return to work/studies

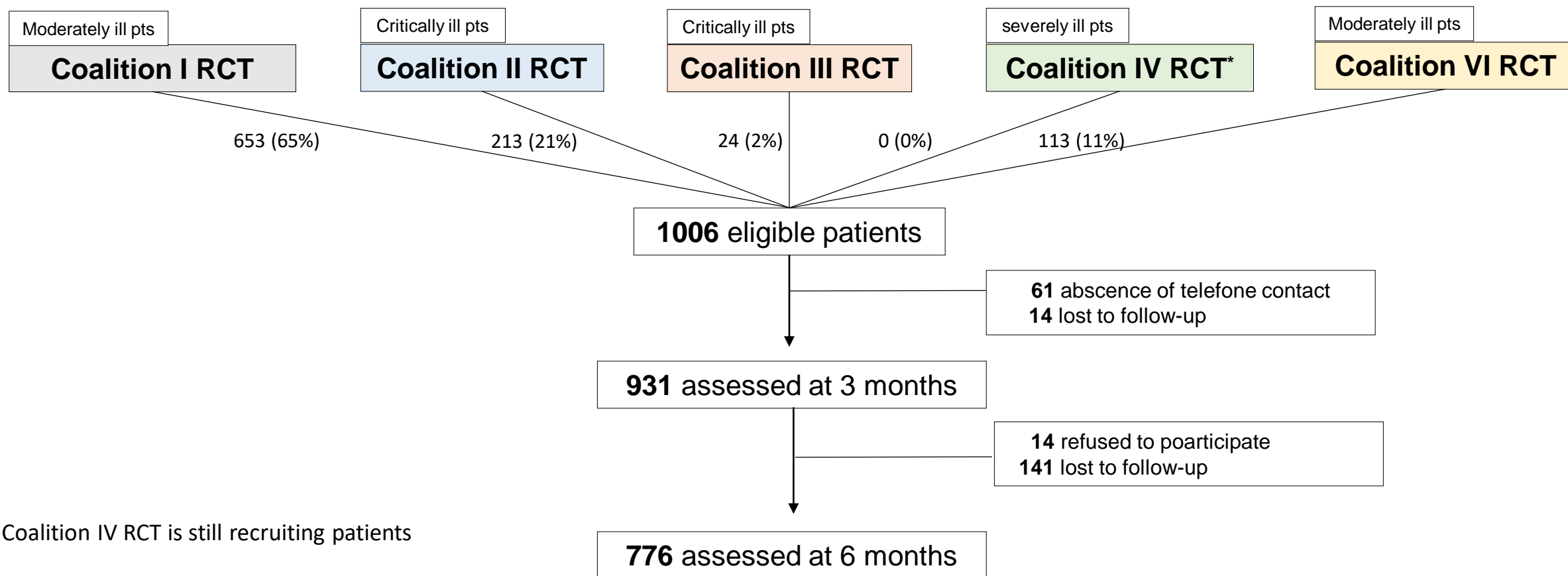
Analyses

- **Comparison according to the need of MV during hospitalization**
- **Generalized Estimating Equations**
 - Crude models
 - Adjusted models (study of origin, age, and comorbidities)

Enrollment and follow-up



Flow of participants



* Coalition IV RCT is still recruiting patients

Baseline characteristics

Variables	Statistic
Age, years – mean (SD)	52.2 (14.7)
Male sex – n (%)	617 (61.3)
Comorbidities – n (%)	
Hypertension	440 (43.7)
Diabetes	236 (23.4)
Obesity	214 (21.4)
Tabagism	68 (6.7)
Asthma	60 (5.9)
Cancer	34 (3.3)
COPD	27 (2.6)
Heart failure	23 (2.2)
Chronic renal disease	17 (1.6)
Others	199 (25.8)
Number of comorbidities – median (IQR)	1 (0;2)

Variables (cont)	Statistic
Time from symptom onset to enrollment, days – median (IQR)	7 (5; 10)
Score on seven-level ordinal scale at enrollment – n (%)	
3: Hospitalized and not receiving O ₂	383 (38.0)
4: Hospitalized and receiving O ₂	471 (46.8)
5: Hospitalized and receiving O ₂ by HFNC or NIV	42 (4.1)
6: Hospitalized and receiving MV	110 (10.9)
MV need during hospital stay – n (%)	232 (23.0)
Length of MV, days – median (IQR)	11 (7;21)
Length of hospital stay, days – median (IQR)	9 (6;27)

HFNC, high flow nasal cannula; IQR, interquartile range (p25;p75); NIV, non-invasive ventilation; SD, standard deviation; VM, mechanical ventilation;

Conclusions

Among survivors of hospitalization due to COVID-19 in the months following discharge:

- The mortality rate is high;
- Rehospitalizations are common;
- The burden of physical and mental health disabilities is high;
- Mechanical ventilation need seems to be a predictor of poor long-term outcomes.

Thank you

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