



Prospective multicenter Observational study on Transfusion practice in vv-ECMO Patients: The PROTECMO Study

FINAL NEWS

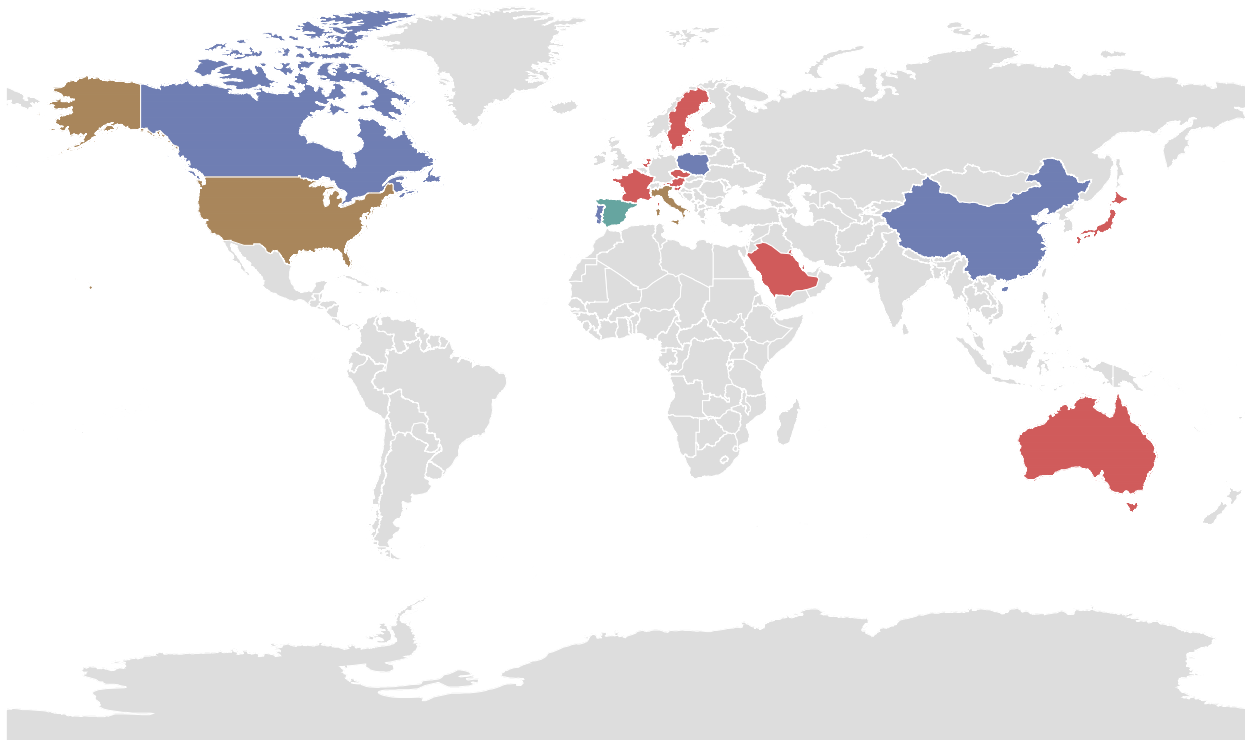
Palermo, 27/9/2021

Dear All,

The PROTECMO study has finally completed the last 6-month follow-up on August 27th. Despite the difficulties we all have experienced in the last two years we were able to finalize such a complete set of data with less than 1% of missing.

After the final data managing, with the Steering Committee and the Writing Group we are going to work soon on the first manuscript, but here there is some cumulative information on the enrollment results and data available that are important to share with everyone.

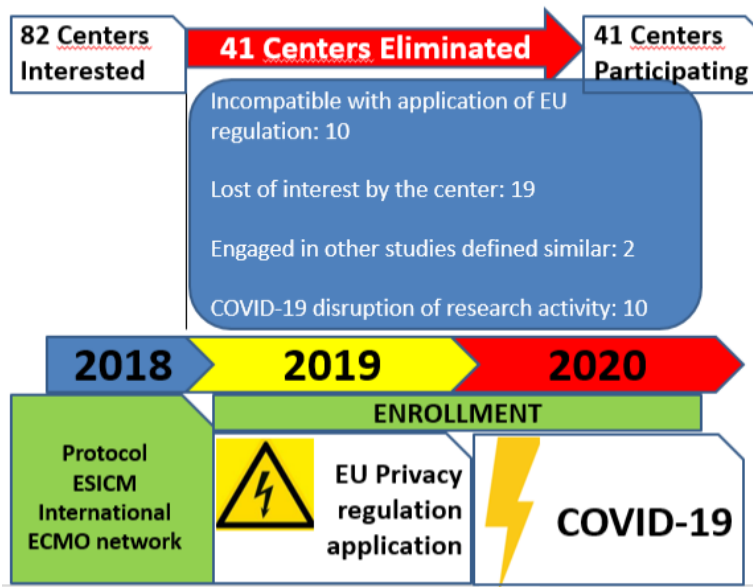
A total number of 656 patients on V-V ECMO were enrolled by 41 centers worldwide.



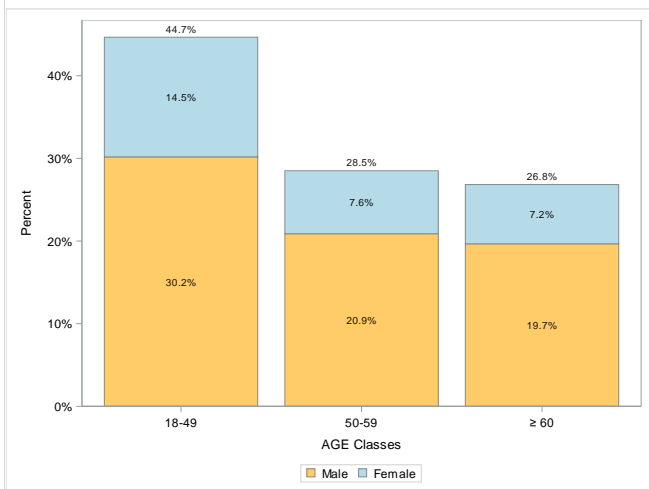
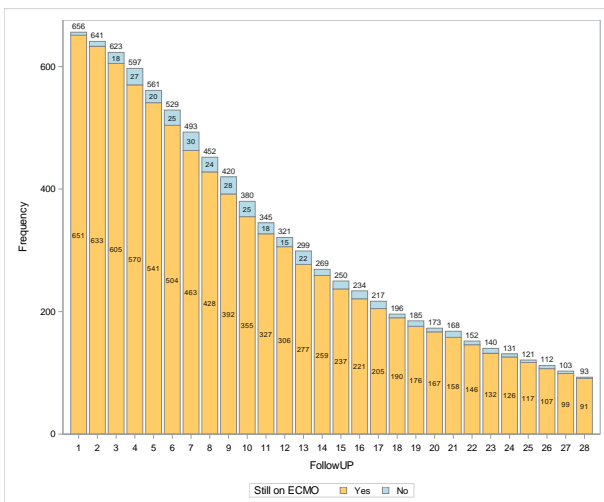
Number of patients < 10 10-50 50-100 > 100

continent	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Europa	364	55.49	364	55.49
America	163	24.85	527	80.34
Asia	116	17.68	643	98.02
Australia	13	1.98	656	100.00

After the endorsement by the ESICM and International ECMO networks, a total of 82 centers manifested their interest, but then, the incompatibility with the requested EU rules on data protection, the occurrence of Covid-19 pandemic, the lost of interest by the centers or the involvement in other similar studies reduced the number of participating centers, as summarized:



The total number of days on ECMO available for analysis are 8483.



As expected COVID-19 was the main cause of acute respiratory failure with 33% of cases.

Cause of Acute Respiratory Failure	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Bacterial pneumonia	103	15.70	103	15.70
Viral pneumonia	119	18.14	222	33.84
Trauma/burns	25	3.81	247	37.65
Aspiration pneumonia	27	4.12	274	41.77
Asthma	14	2.13	288	43.90
Pancreatitis	8	1.22	296	45.12
Non-respiratory and chronic respiratory diagnoses	21	3.20	317	48.32
Graft failure after lung transplantation	30	4.57	347	52.90
Other acute respiratory diagnosis	92	14.02	439	66.92
COVID-19	217	33.08	656	100.00

The main descriptive aims of the study were current hemoglobin values & transfusion practice, anticoagulation type & dosage, bleeding episodes.

For the topic of transfusions, 550 patients (83.8%) received at least one PRBC transfusion while 106 (16.2%) did not receive any. In 2544 days (30%) a PRBC transfusion was performed.

The type of daily anticoagulation represent a wide range of approaches:

Type Anticoagulant	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Heparin IV	6223	73.36	6223	73.36
No anticoagulant	1591	18.76	7814	92.11
Bivalirudin	447	5.27	8261	97.38
Argatroban	120	1.41	8381	98.80
Heparin SC	78	0.92	8459	99.72
Nafamostat	20	0.24	8479	99.95
Aspirin	4	0.05	8483	100.00

The number of days with bleeding is 1208 (14.2%) of the total days on ECMO.

Finally, the outcome seems to be well representative of current ECMO literature, also balancing for the lung disease:

ECMO successfull weaning	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	144	21.95	144	21.95
Yes	445	67.84	589	89.79
Treatment withdraw	67	10.21	656	100.00

ICU discharge status	Frequency	Percent	Cumulative Frequency	Cumulative Percent
alive	401	61.13	401	61.13
death	255	38.87	656	100.00

This was just to keep in touch, to say that the data collection is over for everyone (luckily!) and **to congratulate with you all for the magnificent contribution you gave to the study.**

Further news and manuscripts soon!

PROTECMO study group (The order was randomly assigned)

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