Organization of Inter-hospital transports on Extracorporeal membrane oxygenation: an international perspective.

The "10-Q" for review/position paper on how inter-hospital transports on Extracorporeal membrane oxygenation (ECMO) is performed and organized in different health care systems in different parts of the world.

How is the suggestion from to the ECMONet (Combes et al 2014) regarding the *Hub-and-Spoke* model with the larger ECMO centre in the middle who provide the service performing as compared to other models, for example Japan with multiple ECMO centers all doing their own transfers (?), or United Kingdom who transfer to five major hospital for adult ECMO.

This study is an investigation planned and designed by the ECMO European Advisory Board (EEAB), an independent consortium for the development and research in all matters related to Extracorporeal membrane oxygenation.

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Just fill in/answer questions in alternate color at each Question from this point on.

A. Your complete affiliation:

B. CENTER INFORMATION AND CHARACTERISTICS

1- Describe how your country's/regions' ECMO services is organized.

a. Hub-and-wheel, servicing several hospitals of equal size in region/country, performing retrievals to one hospital?

b. Are you a Thoracic ICU? Surgical? Medical? Mixed general? Pediatric? Neonatal? Mixed Neo/ped? Else?

c. Perform both primary and secondary ECMO transports?

Primary transports = patient is commenced by the ECMO team before take-off from referring hospital; Secondary transport = patient is already on ECMO before arrival of transfer team.

d. Are there any specifics concerning VV/VA/ECPR?

e. Size population to serviced:

f. Annual numbers of ECMO transports (prim/sec); NON ECMO transports within the same transport organization?

g. Neonatal/pediatric/adult:

h. Distances:

i. Ground, Air-fixed wing/rotating wing:

j. Regular ambulance services, or specific ECMO transfer vehicle/resource?

k. ECMO team –

i. Compositions/numbers; physicians/specialty, nurses, perfusionist:

ii. Special formal education:

iii. Experience before transport team member:

iv. At work: Time on duty/on call, sitting waiting:

2- Equipment

a. Special for transports compared to in-house?

b. Stretcher?

c. Equipment –

i. Type of pump:

ii. Circuit components

iii. Heater:

iv. Ventilator:

v. Number and type Pumps for Pharmaceuticals:

vi. Suctioning device:

vii. Oxygen volume?

d. Approximate weight of stretcher with Equipment (not with patient):

e. Approximate weight of all equipment brought along:

f. Back up during transport (extra pump, Ox, power, medications ..):

g. Oxygen bottles:

h. Power supplies:

i. Use of heater:
j. What resources are brought “out” to the patient?

3- Describe position of pump and oxygenator in relation to the patient lying on the stretcher.
4- How are the relatives of the patient taken care of, i.e. how are they transferred?
5- What resources to be used provided at/by the referring Hospital (scrub nurse, cautery, vascular surgeon, TEE?, etc.):

GENERAL INFORMATION

6- Financial background: Who pays? Limitations? Equality principle, etc?
7- National legislation/regulations:
    a. Permits? May anyone perform inter-hospital transports?
    b. In air: equipment tested for Electromagnetic interference? Certified?

FOLLOW UP

8- Safety and complications
    a. System for quality assurance/follow up?
    b. Number of adverse events during transport (Definition transport: Time from the A/C-plug is disconnected at primary site till it is put in again at secondary hospital):
    c. Fatality percentage (Definition transport: Time from the A/C-plug is disconnected at primary site till it is put in again at secondary hospital):
    d. Staff training: pump training, simulations in vehicle/aircraft? Other?
9- Future perspectives:

10_Additonal Qs:

a. Who makes the final decision for ECMO-acceptance?

b. Where is that decision made?

c. How? Please describe. (Examples: Unanimous in a group constituted of …. ; Thoracic surgeon on-call (on phone); intensivist at bed-side; Physician/s bedside calling home?):