

**OPTIMISATION OF THE THERAPEUTIC MANAGEMENT OF PATIENTS ON ECMO IN
THE PEDIATRIC INTENSIVE CARE UNIT**



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Background and importance

Extracorporeal Membrane Oxygenation (ECMO) : last-resort rescue technique that allows the replacement of **circulatory** and/or **respiratory** functions.

- Increased volume of distribution
 - Impaired renal clearance
- Pharmacokinetic modifications require drugs **dosage adaptation**

→ **Aim and objectives** : Compare the drug prescription of patients on ECMO with literature data to propose appropriate dosages

Material and methods

Prospective observational monocentric study
6 months from Mars to august 2018
Patient in PICU on ECMO
Paper **prescription** analysis et clinical data found by :

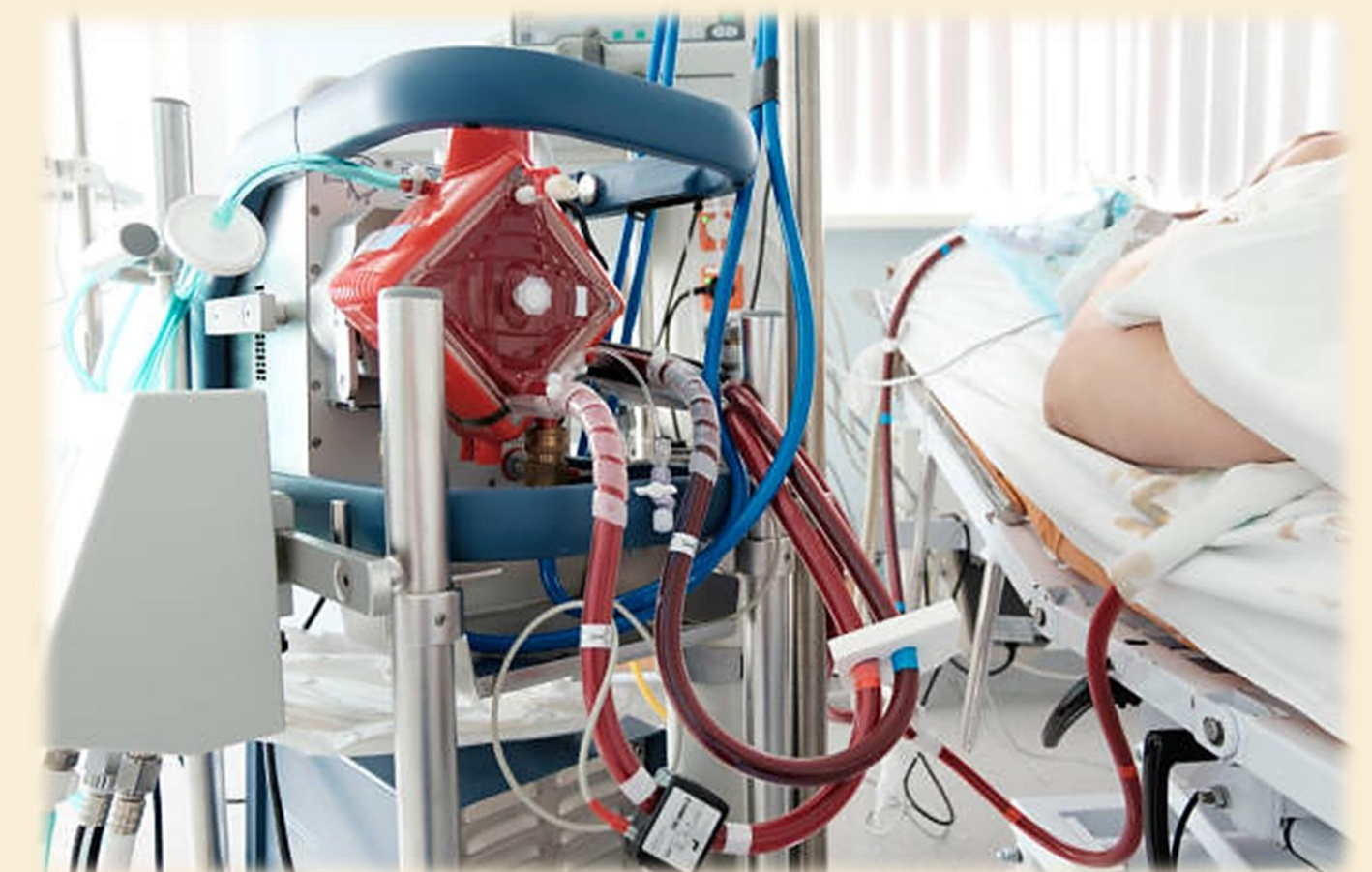
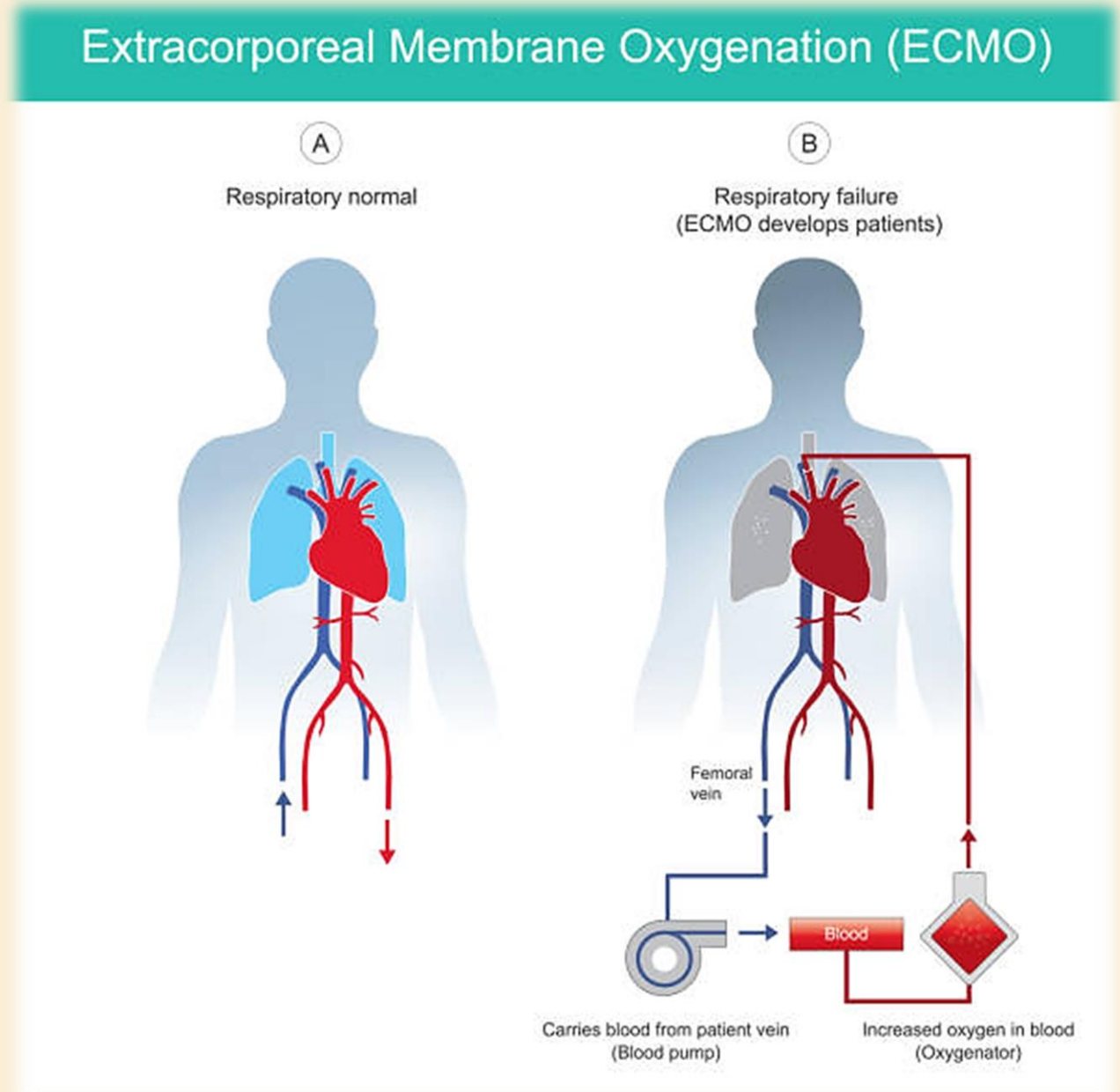
- Computerized patient record
- Our daily presence in the department

Comparison with the literature to examine the appropriateness of prescribed dosages.

We noted for each patient :

- Clinical data
- ECMO :
 - Type and indication
 - Duration
 - Complications

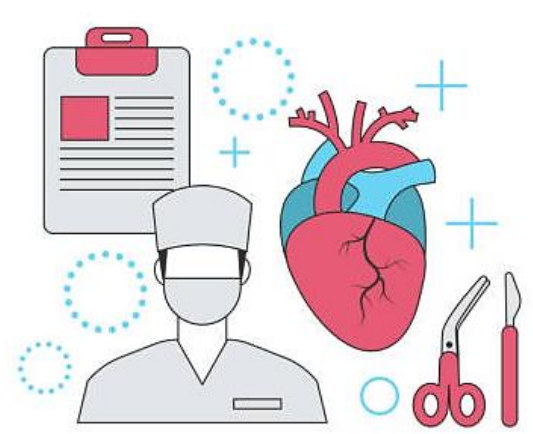
Adequacy of dosages compared to the literature



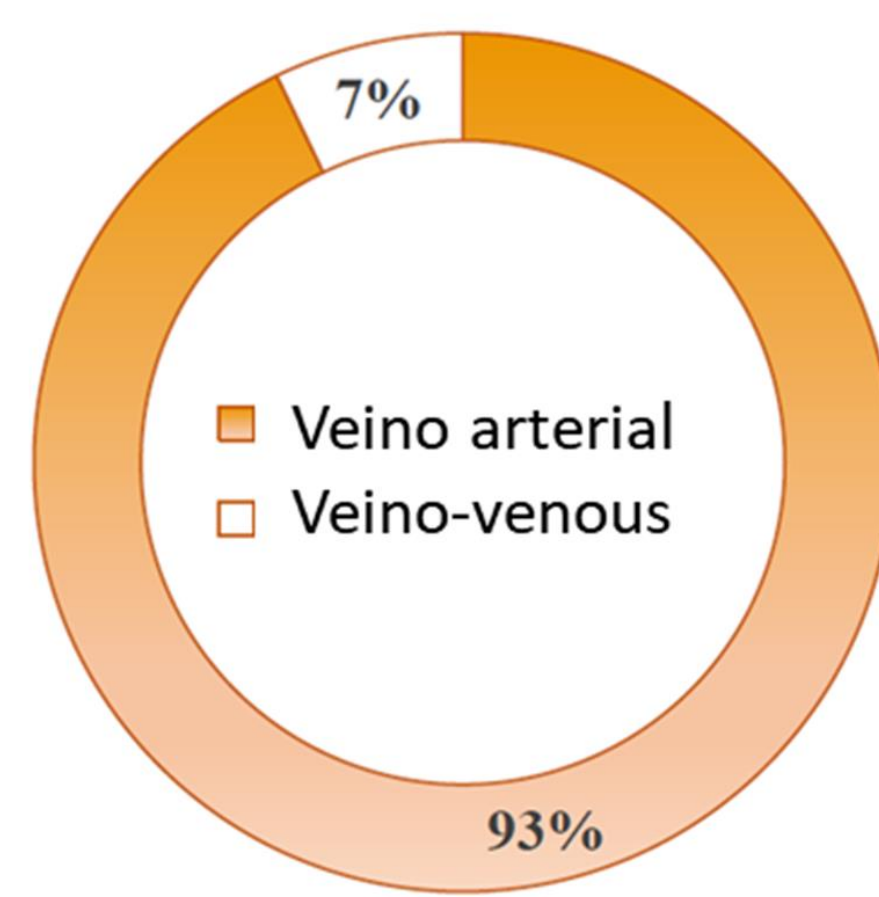
Results

Characteristics of the study population :

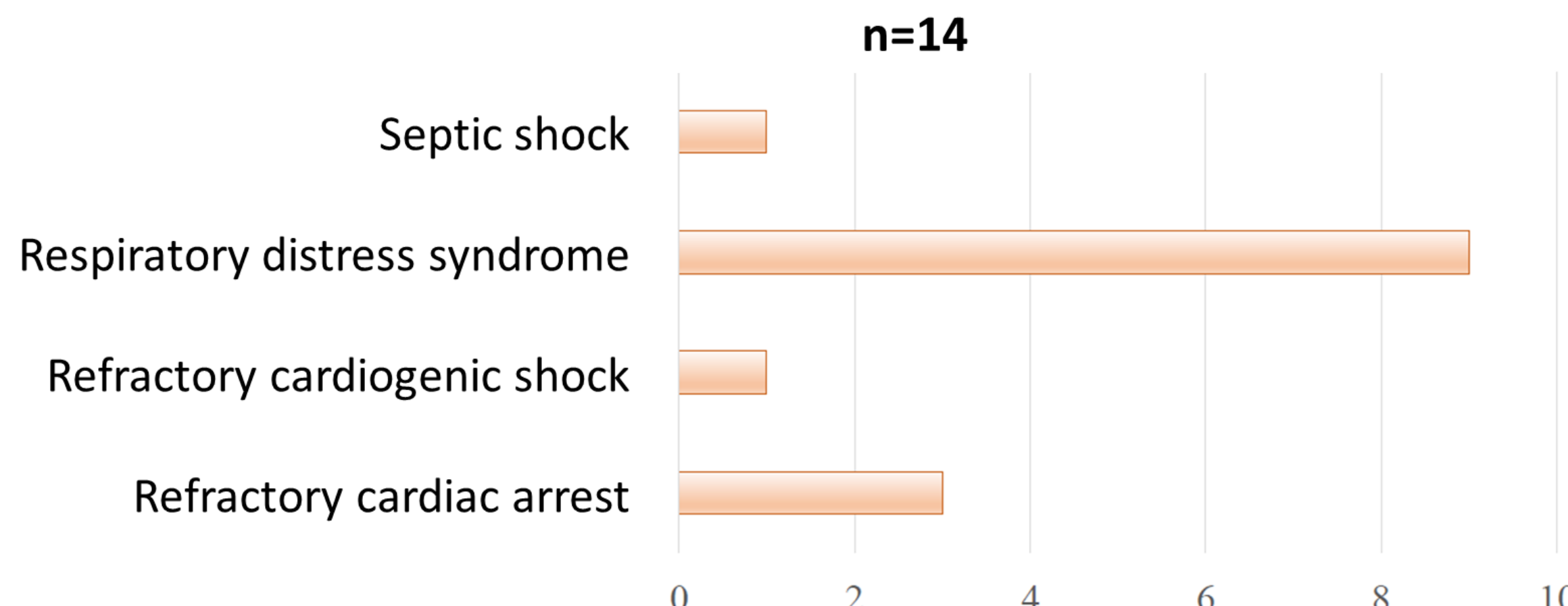
n = 14 patients
Mean age 18 months
sex ratio = 1
Renal function was impaired in 8 patients
Average duration of ECMO = 15 days



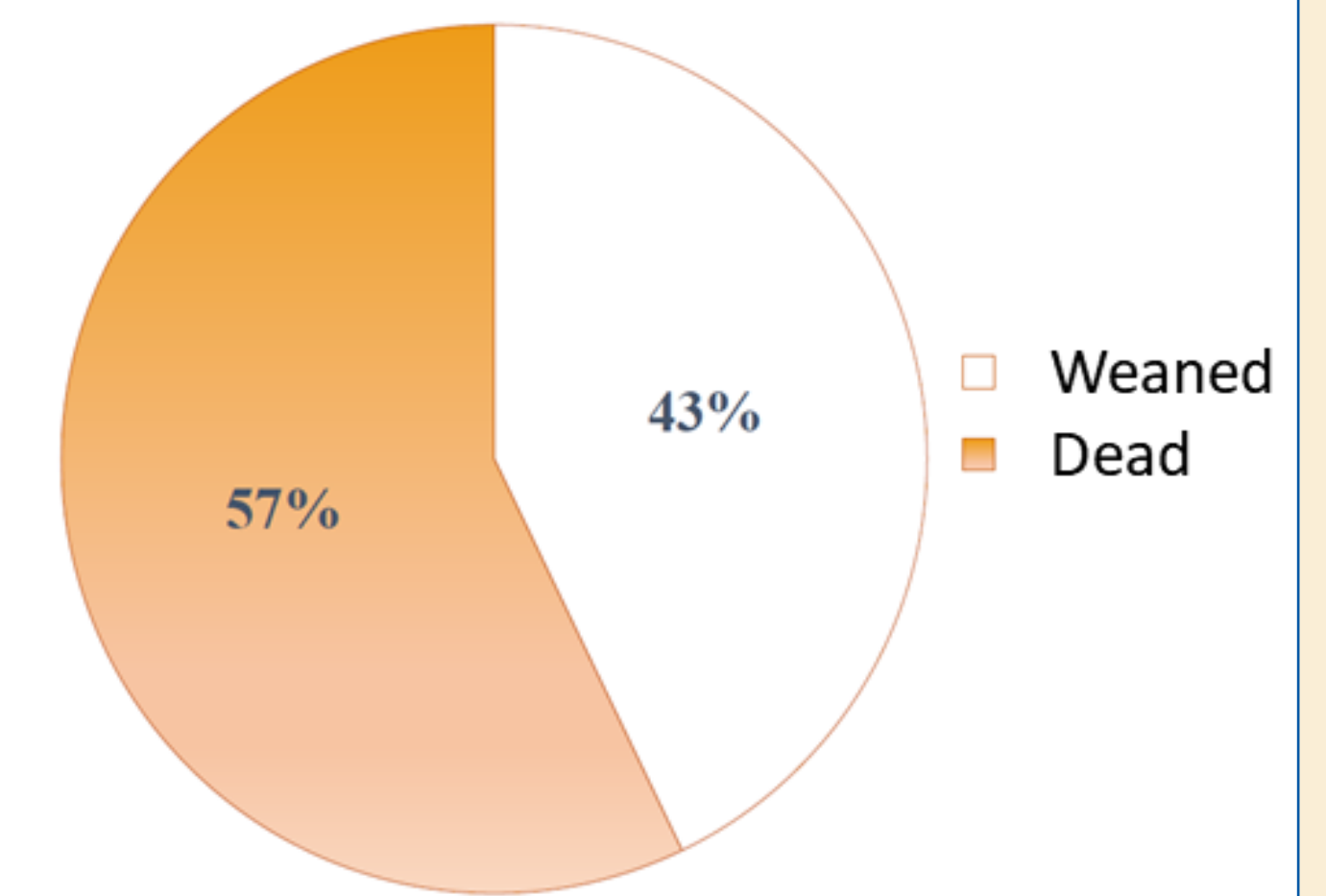
Type of ECMO :



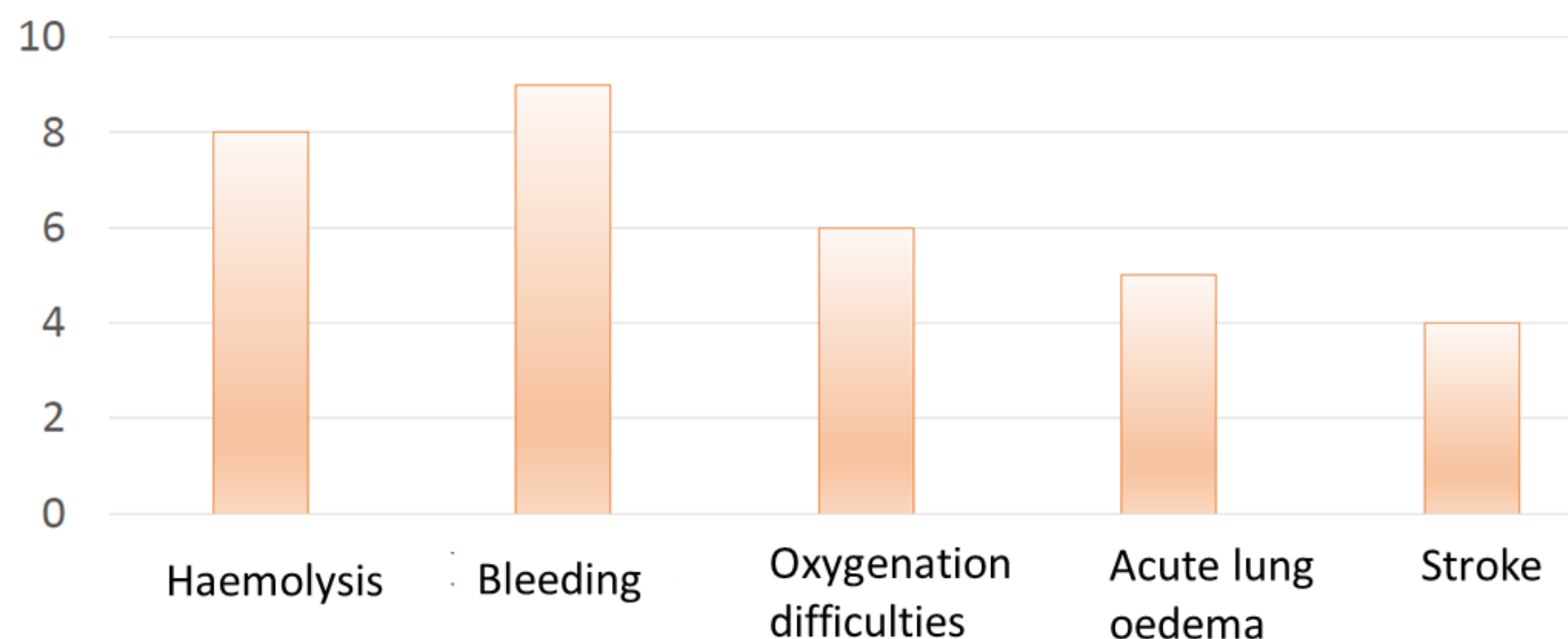
Indications for ECMO



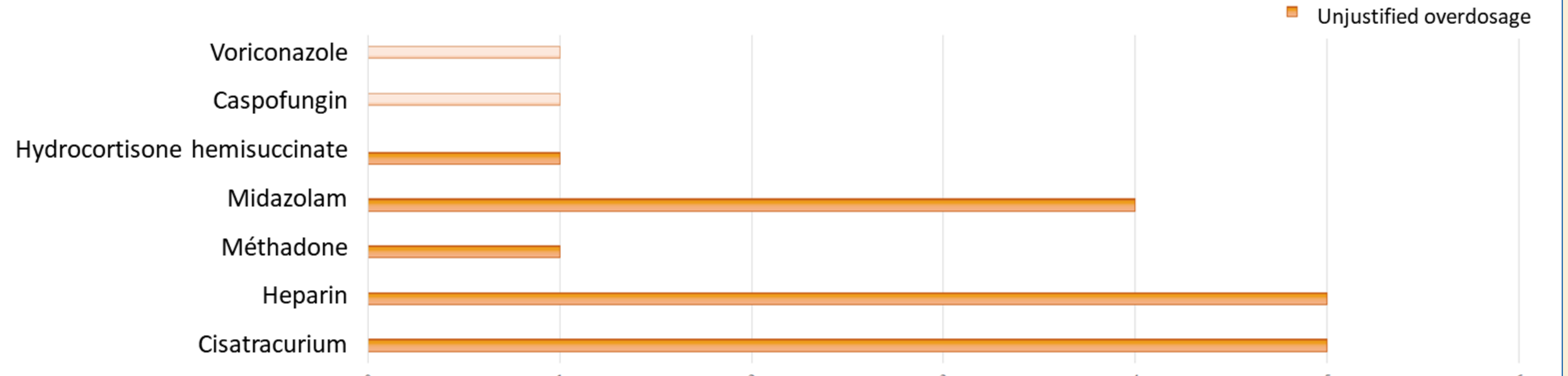
Become on ECMO



Types of complications



Difference with literature n=16



Conclusion and relevance

The populations studied in the literature remain **different** from ours, making it **difficult** to discuss our clinical results. However, following the **non-conformities of dosage** noted, we propose a **table of dosage adaptation under ECMO** synthesizing the literature for the studied molecules which is systematically accompanied by instructions to make a therapeutic drug monitoring

