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.

Results

- We noted for each patient :
  - Clinical data
  - ECMO :
    → Type and indication
    → Duration
    → Complications

Adequacy of dosages compared to the literature

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.

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