Ethical decisions during ECMO

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CHU NANTES
AUX NOUVELLES FRONTIÈRES DE LA SANTÉ

CONFLICTS OF INTEREST

Fresenius: consultant

INTRODUCTION: Why does ECMO raise ethical questions?

- **Life-saving support tool but significant morbidity and mortality**

  - Survival rate: 40-65% (ELSO registry)

  - Morbidity:
    - Primarily neurological
      - Ischemic or hemorrhagic strokes
      - Increased risk of disability, neurodevelopmental disorders, and impaired quality of life

INTRODUCTION: Why does ECMO raise ethical questions?

- Life-saving support tool but significant morbidity and mortality

- **Expanding number of conditions and indications or « relative » contraindications** (immunocompromised patients)

    - The urgent decision-making process for ECMO initiation can sometimes be challenging

WHY DOES ECMO RAISE ETHICAL QUESTIONS?

- Life-saving support tool but significant morbidity and mortality
- Expanding number of conditions and indications or « relative » contre-indications

- **The availability of resources**
- **Mobilisation of human resources**
- **Time factor influences effectiveness**
- **Relationship between experience and performance**
- **Costly treatment**
- **Environmental impact**

ETHICAL QUESTIONS DURING ECMO

- ECMO = transient support:
  - Bridge to recovery
  - Bridge to transplantation
  - Bridge to bridge (long term support)

But sometimes

- Death
- Bridge to nowhere…
  - Unreasonnable obstinacy

WHAT ARE THE ETHICAL ISSUES SURROUNDING ECMO?

- What are the criteria and timing for determining the ‘futility' of a medical intervention in case of neurologic complications?

- **Bridge to nowhere**
  - What are the criteria and timing for deciding when to discontinue ECMO support?

- Should the decision to continue or to discontinue ECMO be a shared decision or should clinicians alone decide when to stop?

- How do we effectively manage disagreements or conflicts with parents regarding end-of-life decisions for their child on ECMO?

- How can we address the moral distress experienced by healthcare providers involved in the child's care?

ETHICAL PRINCIPLES BY BEAUCHAMP AND CHILDRESS

- **Principle of self-determination or autonomy**

Respecting the child and his parents: respectful communication, information sharing, and active listening

- **Principle of causing no loss or doing no harm (non-maleficence)**

Primum non nocere. If ECMO cannot or is no longer accomplishing benefit, it may be stopped

- **Principle of beneficience:**

The child’s best interest should always be the cornerstone of our discussions

- **Principle of equity (justice):**

Devoting the same attention to each situation, regardless of the relationships with the child and family, and regardless of the composition of the healthcare team that is present.

Parental experience of highly technical therapy: Survivors and nonsurvivors of extracorporeal membrane oxygenation support

Martha A. Q. Curley, RN, PhD, CCNS, FAAN; Elaine C. Meyer, RN, PhD

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Table 1. Multidisciplinary intensive care unit patients supported on extracorporeal membrane oxygenation (1990–1998)

	Total (n = 327)		Survivors (n = 204)		Nonsurvivors (n = 123)	
	n	(%)	n	(%)	n	(%)
Newborn medical	147	(45)	123	(84)	24	(16)
Newborn surgical	75	(23)	31	(41)	44	(59)
Newborn cardiac	22	(6)	8	(36)	14	(64)
Pediatric medical	26	(8)	17	(65)	9	(35)
Pediatric surgical	10	(3)	4	(40)	6	(60)
Pediatric cardiac	47	(14)	21	(45)	26	(55)

- 22% had been informed about the possibility of death prior to consent
- Over 50% of parents felt they had no choice but to consent to ECMO,.
- 72% of parents of children who died after ECMO would have consented to the procedure again

Decision-Making, Ethics, and End-of-Life Care in Pediatric Extracorporeal Membrane Oxygenation: A Comprehensive Narrative Review

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PCCM 2021

B Conversation Principles for Pediatric ECMO

Informed consent
- Honest information provision
- Transparency surrounding risks, benefits, limitations and uncertainty in outcomes

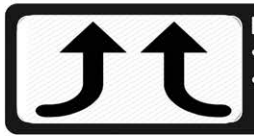
Setting goals early
- Define the intended goal of ECMO support (including fetal), setting clear expectations for ECMO as temporary and supportive, not curative
- Potential need to stop ECMO in the absence of successful achievement of the broad purpose

Timelines and milestones
- Timelines for reassessing benefits and burdens
- Defining milestones that represent progress or worsening status

Reevaluation
- Frequent reevaluation of treatment goals using realistic evidence-based projections for meaningful survival weighed with burdens
- Reassessment if goals or milestones are being met

Support
- Establishing trust, rapport and a supportive environment and therapeutic relationship for shared decision-making
- Consideration of early subspecialty palliative care or ethics committee referral with conflict

Eliciting values
- Sharing worries and ascertaining family values, hopes and fears, and preferences including for participation at end-of-life



Provision of goal-aligned care
- A key consideration in discontinuation is if the goals for which ECMO was initiated are achievable
- Respecting and supporting families through decisions contrary to clinicians' personal opinions unless perceived to be misaligned with the child's best interests

Recommendations
- Providing value-aligned recommendations for discontinuation
- Avoiding placing burden on families through reassurance that they and team have done everything possible

A Communication Guide for Pediatric Extracorporeal Membrane Oxygenation

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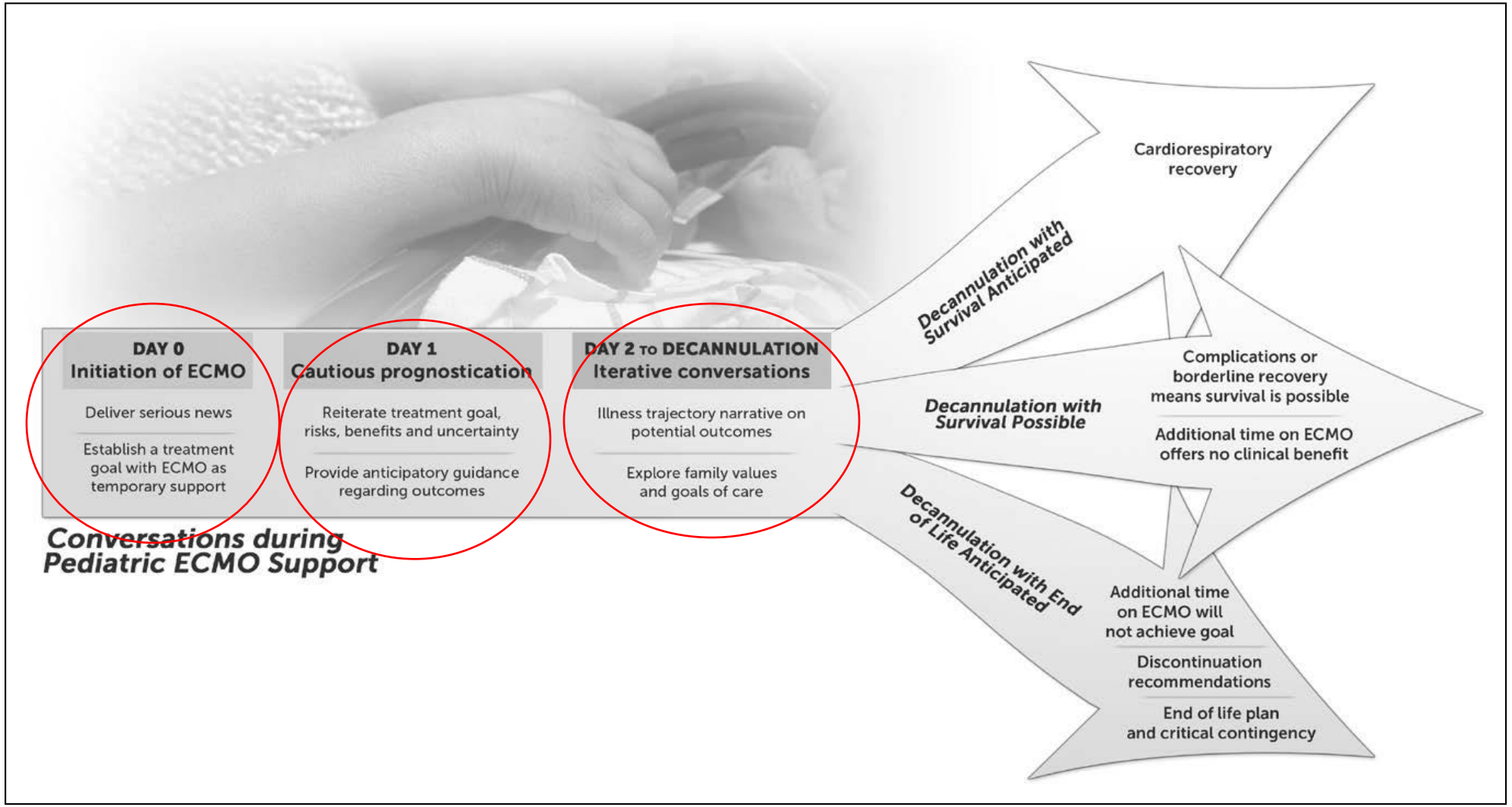

Figure 1. A framework for structured, transparent conversations during pediatric extracorporeal membrane oxygenation (ECMO) support.

HOW TO AVOID CONFLICT WITH PARENTS?

Withholding and withdrawing treatment in pediatric intensive care. Update of the GFRUP recommendations

R. Cremer [a,*], L. de Saint Blanquat [b], S. Birsan [c], F. Bordet [d], A. Botte [c], O. Brissaud [c], J. Guilbert [e], B. Le Roux [f], C. Le Reun [g], F. Michel [h], F. Millasseau [f], M. Sinet [e], P. Hubert [b] on behalf of GFRUP

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[i] *Réanimation et surveillance continue pédiatriques, hôpital Robert-Debré, 48, boulevard Sérurier, 75019 Paris, France*

- Disagreement can enrich the dialogue
- Relational communication based on empathy and respect
- Child-centered decision making

Suggested measures to resolve conflicts with families [11,30,47,49].

When there is a persistent conflict

Give the parents a letter from the physician in charge that provides a simple explanation of what is at stake and of the reasons that prompted the decision proposed to them; this can help the parents discuss the issue with one another and with their close family and friends

Suggest obtaining the assistance of a psychologist, child psychiatrist, or ethno-psychiatrist to explore and attempt to understand how the parents function

Suggest that the parents meet with the head of the department

Perhaps suggest a change of the physician in charge

Ask for a second opinion, even based only on the patient's files

Obtain the involvement of a pediatri

Ask, provided the parents agree, for advice from an ethics committee

WITHDRAWING ECMO

Withholding and withdrawing treatment in pediatric intensive care. Update of the GFRUP recommendations

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Organ donation by Maastricht-III pediatric patients: Recommendations of the Groupe Francophone de Réanimation et Urgences Pédiatriques (GFRUP) and Association des Anesthésistes Réanimateurs Pédiatriques d'Expression Française (ADARPEF). Part II: Specific organizational and technical considerations

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- Discussion:
  - Collegial procedure in France
  - Unreasonnable obstinacy?
  - Shared decision-making with parents: physicians should let the parents choose their level of involvement
  - Implementation of a new care plan

- How? Parameters of ECMO can be decreased gradually or the assistance can be stopped

- Discuss controlled donation after circulatory death (cDCD)

MORAL DISTRESS FOR HEALTHCARE PROVIDERS

Triggers of experience of moral distress:

- The seemingly lack of honest and transparent communication with parents;

- The apparent loss of situational awareness among doctors;

- The perceived lack of recognition for the role of nurses and the variability in end-of-life decision-making;

Between hope and disillusionment

ECMO seen through the lens of nurses working in a neonatal and paediatric intensive care unit

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PREVENTIVE ETHICS

- Importance of ethical climate
  - Relationship between ethical climate perception and moral distress
  - Daily interdisciplinary rounds
  - Open communication among team members
  - Mutual respect between nurses and physicians

- Information and open communication with parents
  - Family centered-care
  - Discussion of values appropriate goals and fears
  - Shared decision-making
  - Involving external support if necessary (pediatric palliative care team, psychologist, religious representative, ethics committee)

CONCLUSION

- Ethical considerations during pediatric ECMO are complex and multifaceted
- Information and open communication are crucial
- Keep always the child at the center
- Embrace uncertainty and bear the weight of decision-making

THANK YOU FOR YOUR ATTENTION