



# TTS 2024

ISTANBUL TURKEY  
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30<sup>th</sup> International Congress of The Transplantation Society

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**Our Experiences with oXiris® Hemofilter among**

**Solid Organ Transplant Recipients with Septic Shock in Intensive Care Unit**

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## Introduction

Sepsis is a dysregulated host response to an infection and can result in organ dysfunctions and death. The oXiris® is a novel filter for continuous renal replacement therapy (CRRT) to improve the prognosis and reduce the inflammatory response of solid organ transplant recipients with septic shock.

## Aim

This study reported our experiences with the use of the oXiris® hemofilter for **liver transplant recipients (LTr)** and **renal transplant recipients (RTr)** with septic shock requiring CRRT in intensive care unit (ICU).

## Material and Method

- Retrospective study
- January 2019 - January 2024
- Adult LTr and RTr with **septic shock** requiring CRRT with the **oXiris® hemofilter**



# Results



| Transplantation type | Number of patients |
|----------------------|--------------------|
| Liver                | 113                |
| Renal                | 296                |



17 of these patients (4.2%) underwent **CRRT with the oXiris® hemofilter** due to septic shock in early & late periods in ICU



17

♂: 13 patients (76.5%)

♀: 4 patients (23.5%)

mean age 47.7±12.9 years old



| Transplantation type | Number of patients | %    |
|----------------------|--------------------|------|
| Liver                | 3                  | 82.4 |
| Renal                | 14                 | 17.6 |

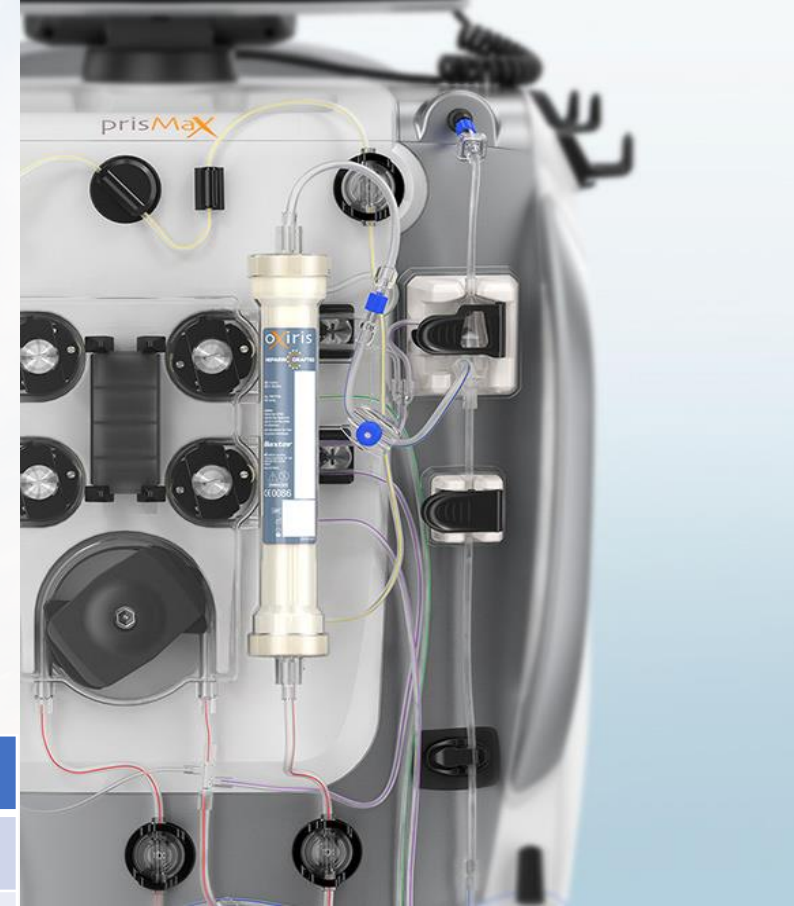
\*12 patients (70.6%)  
Medical etiologies

\*5 patients (29.4%)  
Surgical causes

| Scores on ICU admission | APACHE II | SOFA    | GCS     |
|-------------------------|-----------|---------|---------|
| Mean ± SD               | 19.3±8.5  | 9.1±4.7 | 9.9±5.6 |

- The most common reason for ICU readmission → **respiratory problems** (n = 12, 70.6%)
- 7 patients (41.2%) had **stage 2 and stage 3 AKI**
- The most common indication for CRRT → **metabolic acidosis** (n=10, 58.8%)

- The duration from ICU admission to CRRT → 3.3±4.7 hours
- The serum levels of **CRP, leukocyte** and **procalcitonin** before & after usage of oXiris® hemofilter → no statistically significant decrease (p>0.05)
- The most common bacteria → *Klebsiella pneumoniae* (29.4%)
- The ICU mortality rate → 82.4 % (n=14)



| Type of infection  | Pneumonia | Urinary tract | Cholangitis |
|--------------------|-----------|---------------|-------------|
| Number of patients | 12        | 4             | 1           |
| %                  | 70.6      | 23.5          | 5.9         |

| Type of the isolated bacteria | MDR  | XDR  | PDR  |
|-------------------------------|------|------|------|
| %                             | 17.6 | 23.5 | 11.8 |

| Length of stay | ICU     | Hospital   |
|----------------|---------|------------|
| Mean (day)     | 7.8±4.9 | 17.6 ±11.2 |

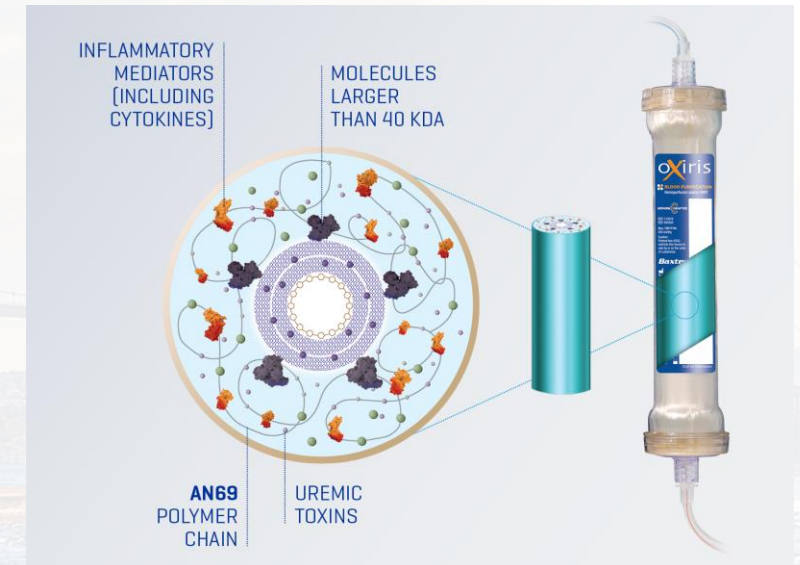


## Conclusion

- ♣ Our incidence of oXiris<sup>®</sup> hemofilter usage among LTr and RTr during the posttransplantation period → **4.2%**
- ♣ There is a lack of data about solid organ transplant recipients who use oXiris<sup>®</sup> hemofilter in ICU during early and late postoperative periods.
- ♣ oXiris<sup>®</sup> hemofilter may be preferred among SOTr with septic shock who require CRRT.

## References

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