

# **Psychosocial Needs of Critically Ill Adult Patients Requiring Therapeutic Plasma Exchange and the Support Needs of their Families:**

## **A Systematic Review**



**BACCN Conference 2023**

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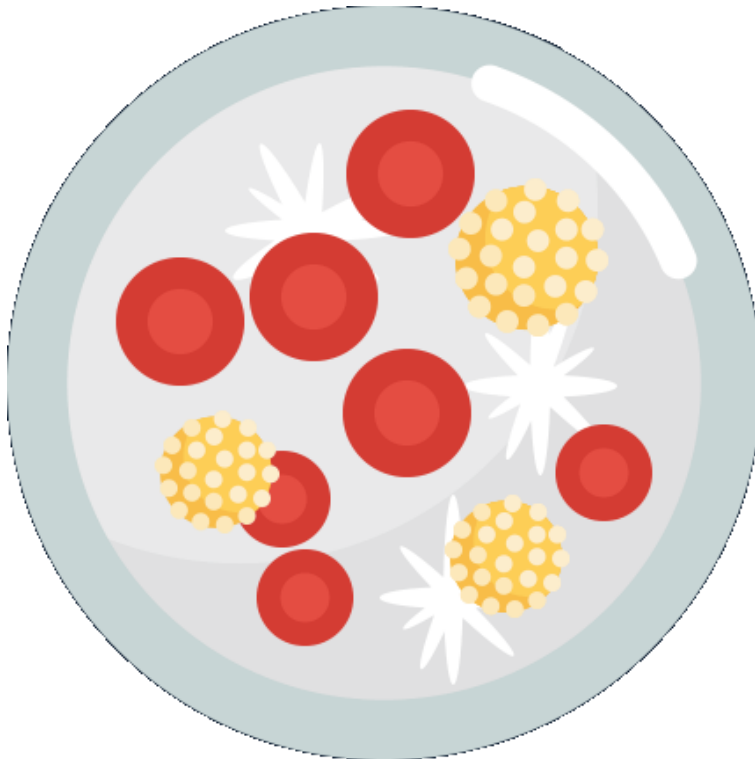
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# Background

## Therapeutic plasma exchange (TPE)

- separation of plasma from whole blood using an extracorporeal machine whilst returning cellular blood components with replacement fluid <sup>1,2</sup>



- indicated for removal of pathogenic autoantibodies, immune complexes, toxins, lipids, allergens and cryoglobulins <sup>3,4</sup>

# Background



- Sparse evidence on the use of TPE for critically ill adults

- Rare reporting of effects on the psychosocial state of the critically ill patient and its impact on families and significant others <sup>6,7</sup>



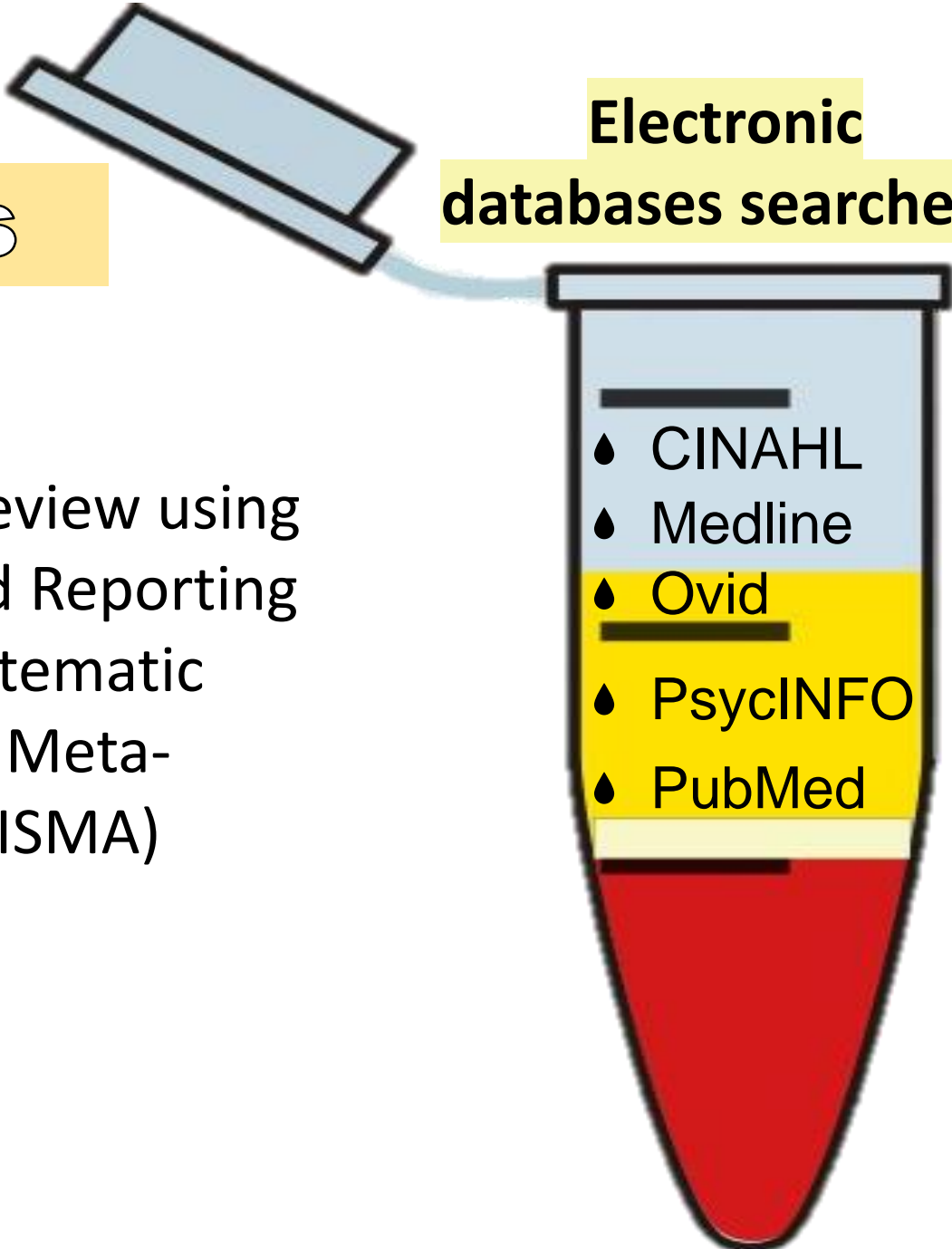


To examine the evidence on the psychosocial needs of critically ill adult patients requiring TPE and the support needs of their families

# Methods

- Systematic review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework

Electronic  
databases searched:



• CINAHL  
• Medline  
• Ovid  
• PsycINFO  
• PubMed

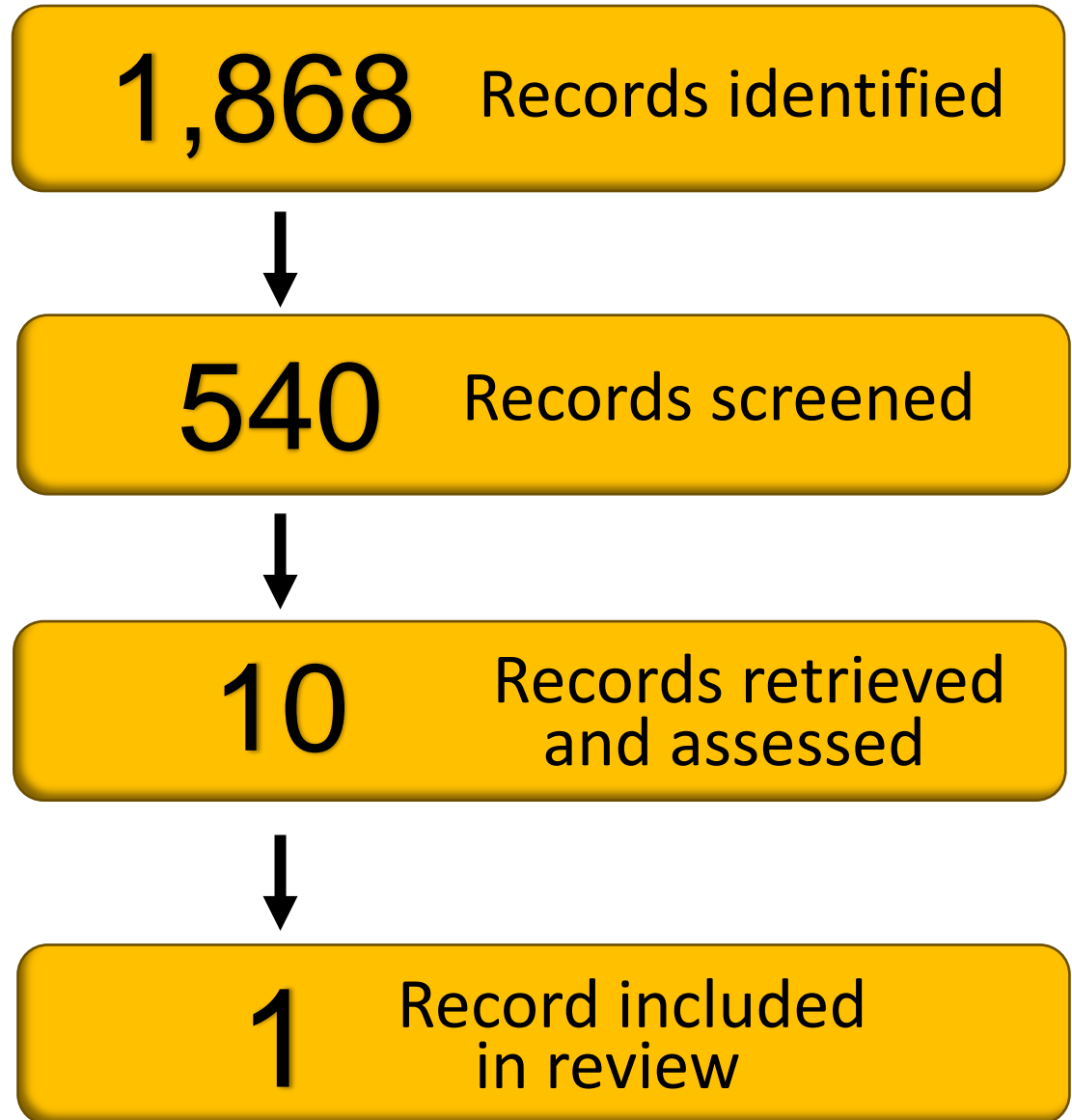
# Methods cont.

## Inclusion Criteria

1. Published in a peer-reviewed journal from 2003 to present
2. Primary research
3. Included adult patients who required TPE in ICU
4. Measured psychosocial states and support needs of patients and families

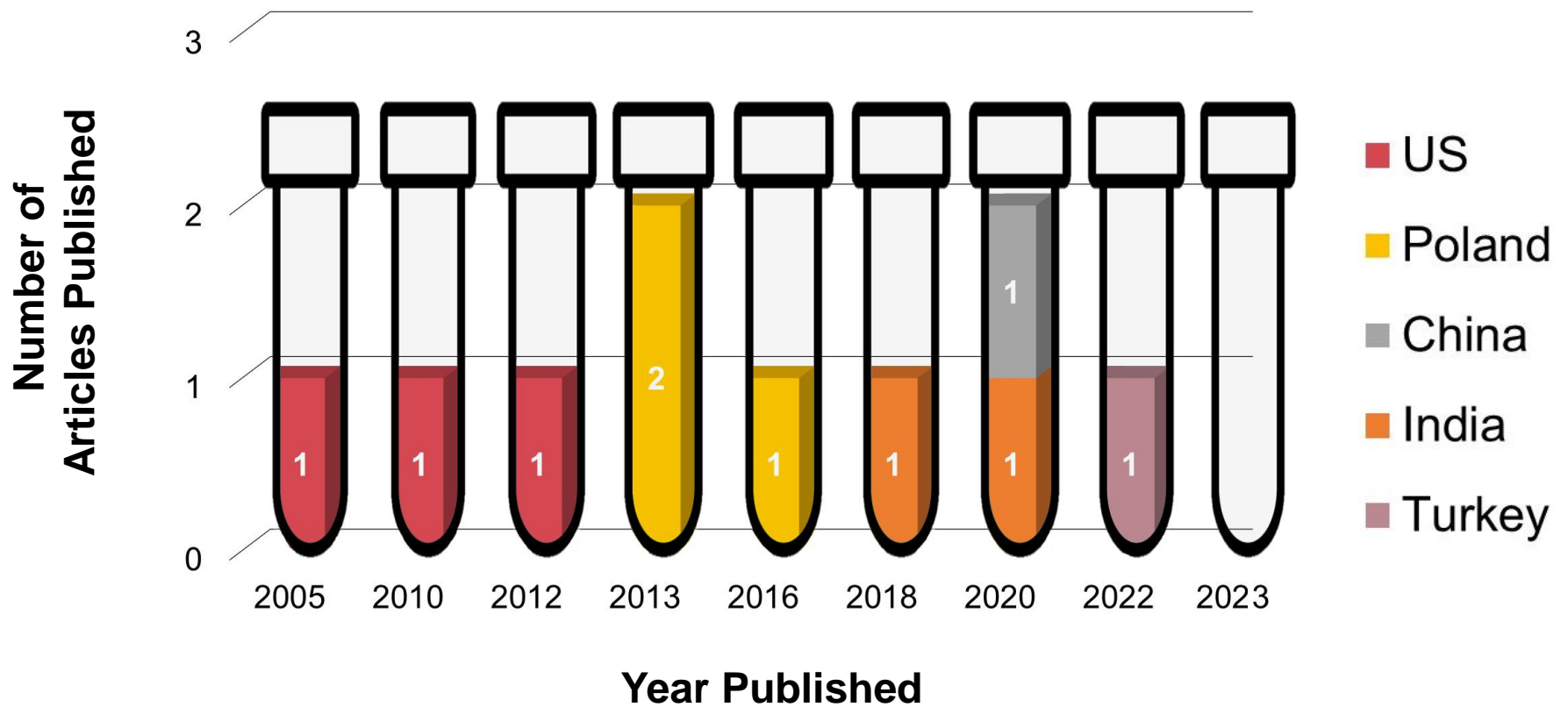
## Exclusion Criteria

1. Secondary analysis of data
2. Case studies or series
3. Editorials or other opinionated articles



# Results cont.

## Number of Articles Published Per Year and Country





## Results cont.



- TPE significantly improved QOL pre- and post-treatment, at baseline, and 4 weeks after TPE for patients with myasthenic crisis <sup>8</sup>
- Significant improvements were found for physical functioning and self-assessment but not for mental functioning <sup>8</sup>

## Results cont.

- Significant role limitations were found on physical and emotional functioning. <sup>8</sup>



- No data was found on the experiences and support needs of families of critically ill patients who required TPE.

# Conclusion/Implications for Practice



- Future research should explore the short- and long-term effects of TPE on the mental health and well-being of critically ill patients and their families

- There is a need for development of evidence-based strategies that will address the psychosocial needs of this specific patient population

# Next Steps

- Publication in a peer-reviewed journal



- Review Trust guidelines in providing holistic care for critically ill patients requiring TPE



- Suggest to include assessing impact of TPE on mental and psychosocial well-being of patients in ICU follow-up clinic

# References

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3. Williams, M. E., & Balogun, R. A. (2014). Principles of separation: indications and therapeutic targets for plasma exchange. *Clinical Journal of the American Society of Nephrology*, 9(1), 181-190.
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7. Bauer, P. R., Ostermann, M., Russell, L., Robba, C., David, S., Ferreyro, B. L., ... & Azoulay, E. (2022). Plasma exchange in the intensive care unit: a narrative review. *Intensive Care Medicine*, 48(10), 1382-1396.
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THANK  
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