

A Quality Improvement Audit of a Prolonged-Ventilation Weaning Centre Teleconsultation Service



INTRODUCTION

In 2004, a provincial Prolonged-ventilation Weaning (PWC) Centre of Excellence was established at Michael Garron Hospital (Toronto) to increase acute critical care system capacity by decanting prolonged-ventilation (PMV, 21+ days) patients from ICUs.

Across Canada, PMV patients occupy 11% vent-capable ICU beds.

In 2014, a teleconsultation service was established, guided by a best practice consultation component template with embedded quality improvement (QI) prompt.

OBJECTIVES

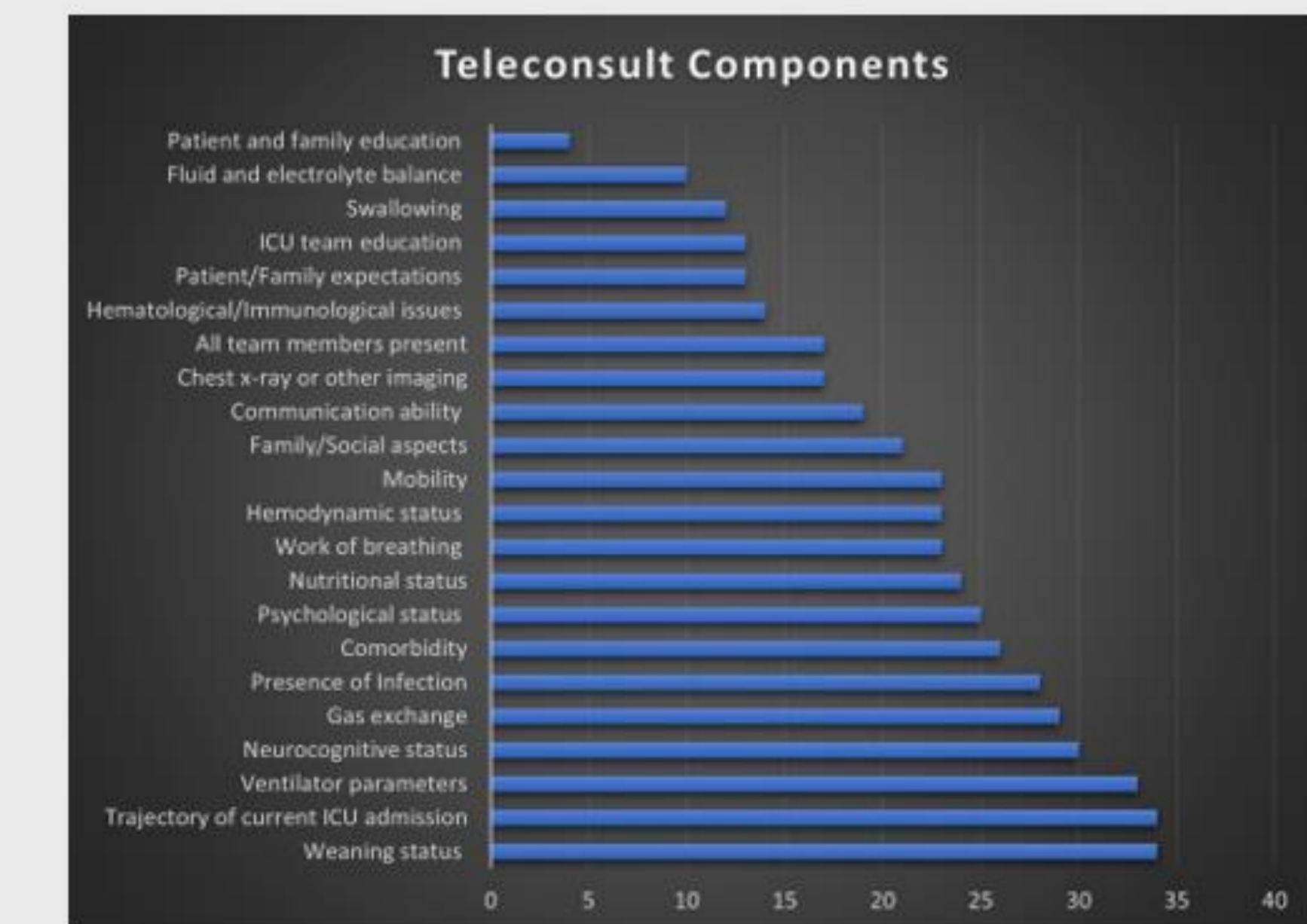
A retrospective observational chart review was done to assess the performance of the PWC teleconsultation service and identify quality improvement (QI) opportunities between January 1, 2014 to July 30, 2022.

36 teleconsultations (20 phone, 16 video) were identified among the 271 PWC admission applications during this period.

METHOD

All identified teleconsultation charts in the electronic health record (Cerner) were independently reviewed by AJG and IMF. Consensus decisions resolved data discrepancies.

The MGH/TEHN Research Ethics Board approved this project as a quality improvement study (NR-309).



AUTHORS

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CONTACT INFORMATION

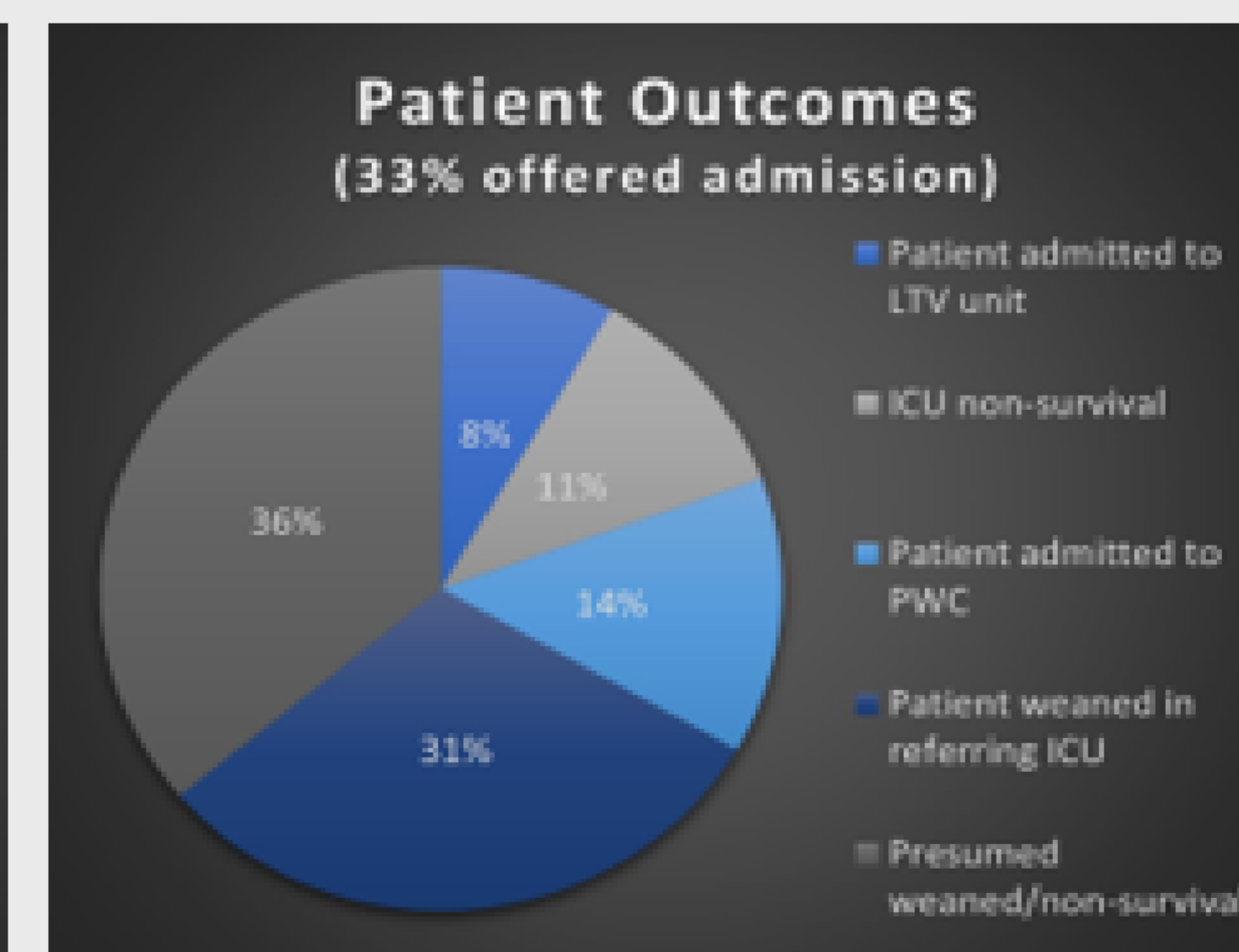
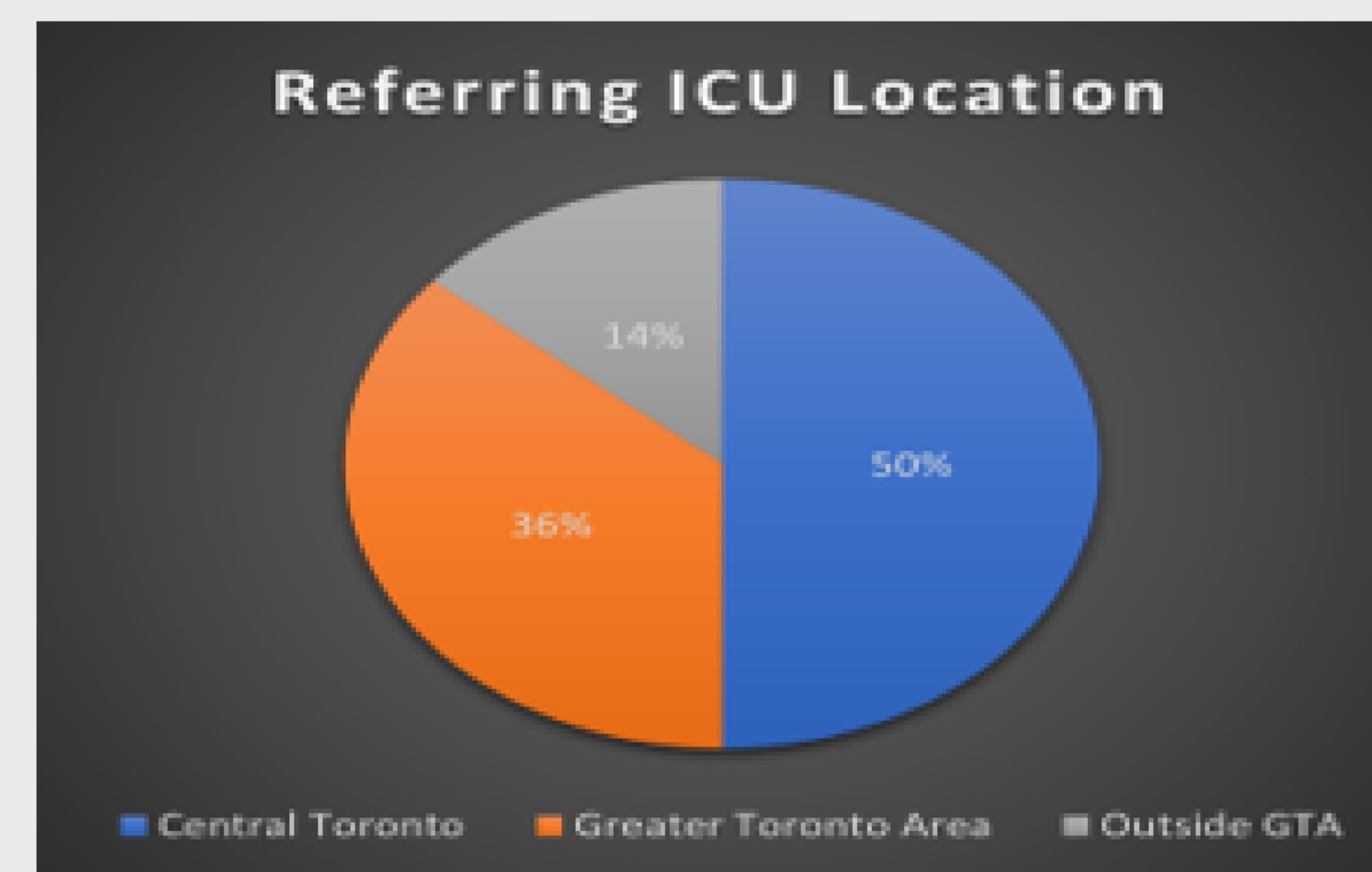
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RESULTS

Demographics

Mean Age 63.3 years (SD 17.6, range 21-94)

M/F 21/15



QI Opportunities Identified

- Shorter user-friendly application process
- Incorporate teleconsultation into application process
- Modify application form to include teleconsultation option
- Referring ICU self-booking teleconsult times
- Pre-consult EHR creation
- Shorter turnaround time
- Full interprofessional team presence

CONCLUSION

1. PWC teleconsults facilitate PMV patient-focused outcomes.
2. All identified QI opportunities prompted QI actions to improve access to teleconsultation.
3. Teleconsultation is an effective low-cost high-quality solution for enhancing the care of the prolonged-ventilation ICU population, which can increase acute critical care system capacity and potentially facilitate earlier admission to weaning centres.

ACKNOWLEDGEMENTS

We wish to acknowledge the support of the Michael Garron Hospital TD Community Research Fund.

REFERENCES

1. Rose L, Fowler RA, Fan E, Fraser I, Lessa D, Mawdsley C, et al. Prolonged mechanical ventilation in Canadian intensive care units: A national survey. *Journal of Critical Care*. 2015 Feb;30(1):25-31.
2. Rose L, Fraser IM. Patient characteristics and outcomes of a provincial prolonged-ventilation weaning centre: A retrospective cohort study. *Can Respir J*. 2012;19(3):216-20.
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5. Subramanian S, Pangin JC, Hraunik M, Helleberg C, Riker R, Rioson F, et al. Tele-Critical Care: An Update From the Society of Critical Care Medicine Tele-ICU Committee. *Critical Care Medicine*. 2020 Apr;48(4):553-61.

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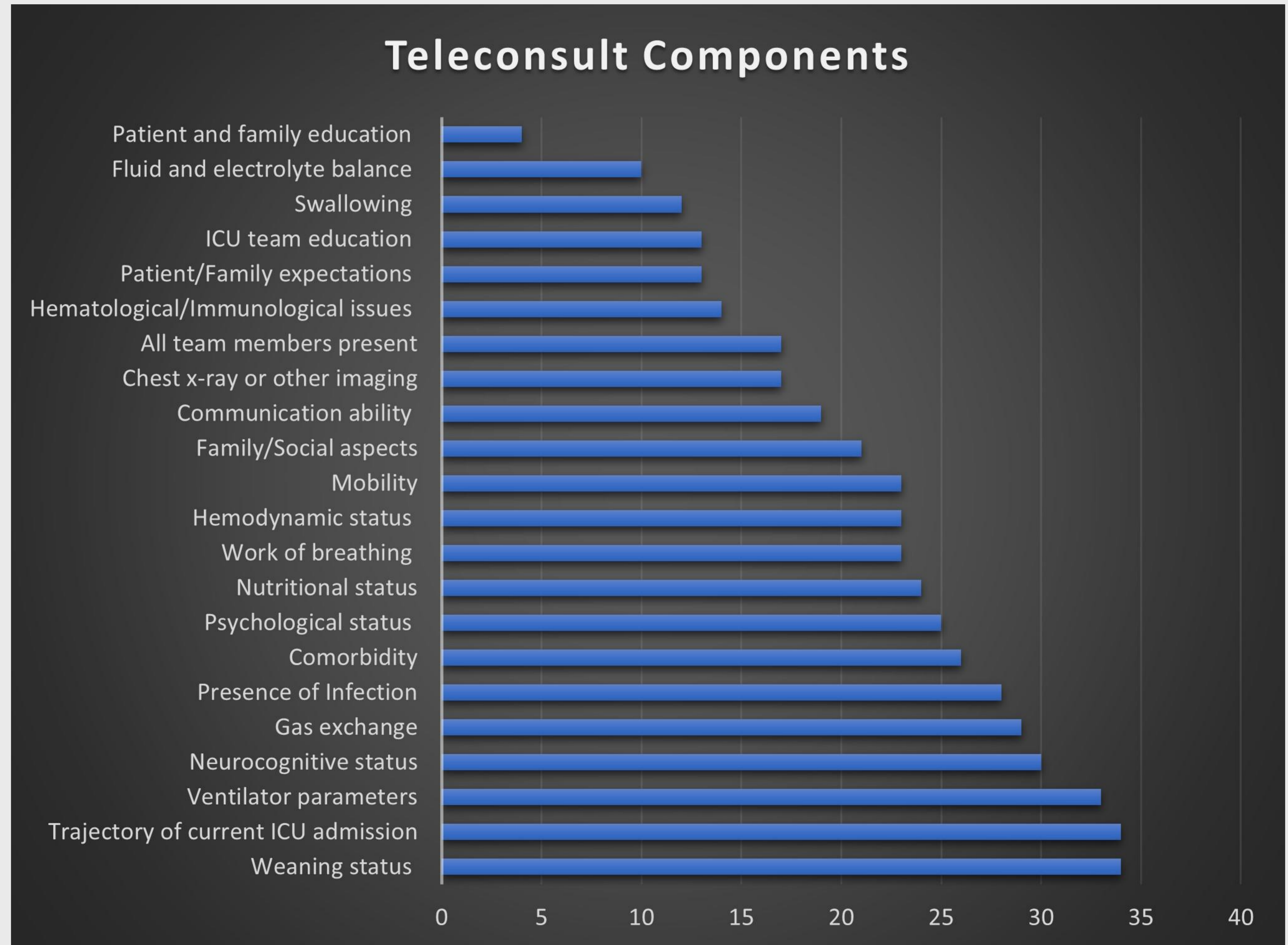
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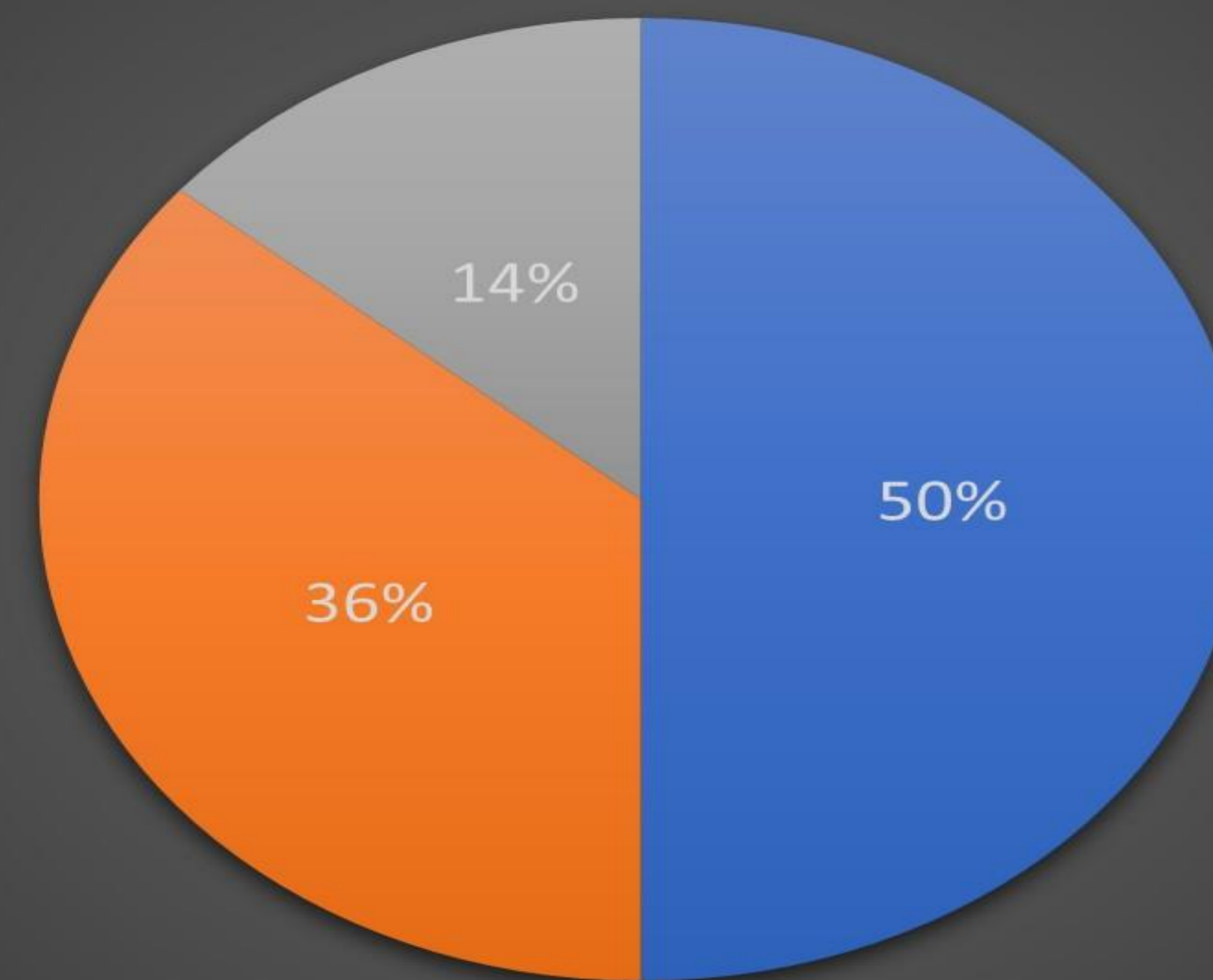
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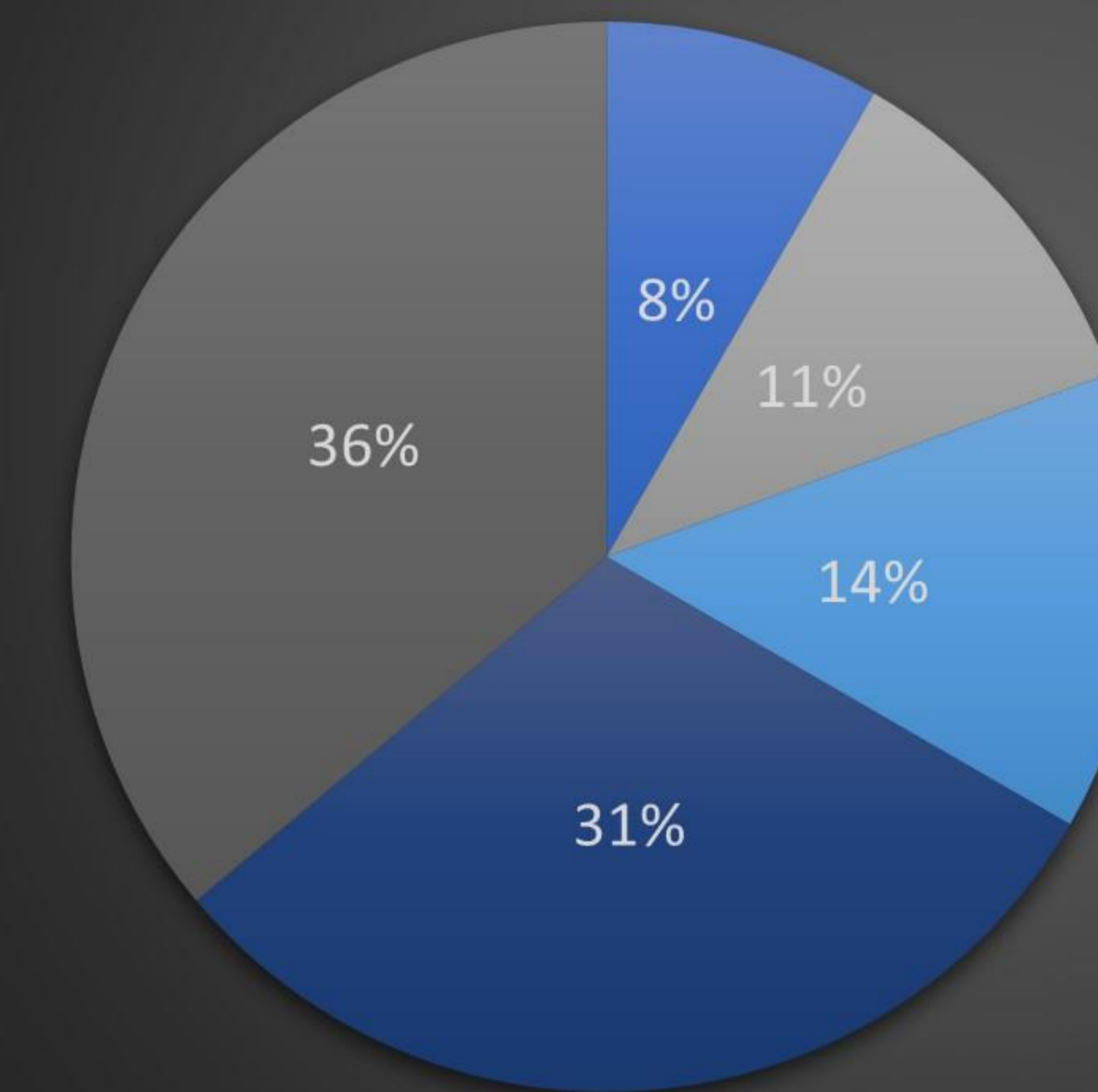
M/F 21/15

Referring ICU Location



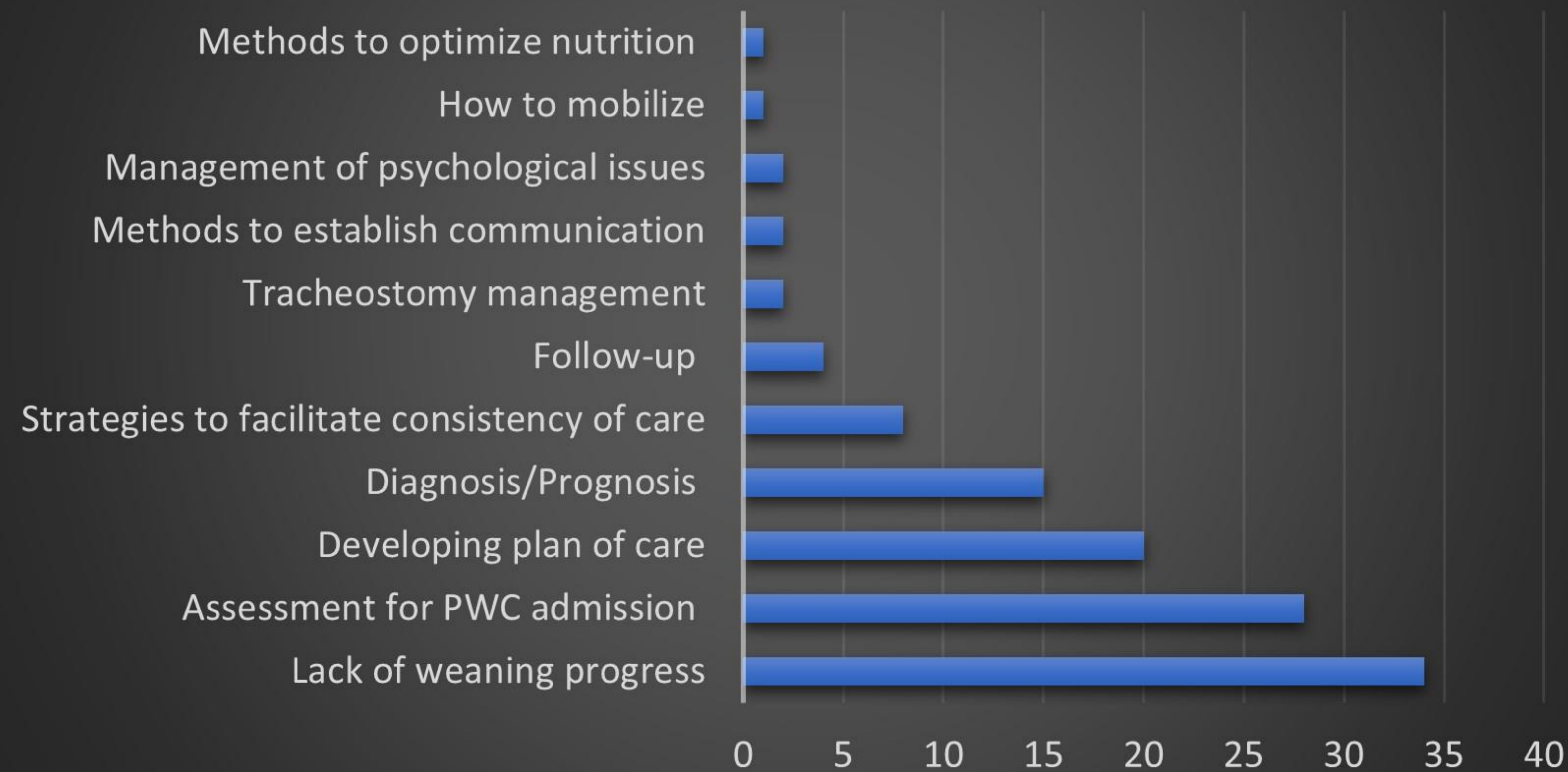
■ Central Toronto ■ Greater Toronto Area ■ Outside GTA

Patient Outcomes (33% offered admission)



■ Patient admitted to LTV unit
■ ICU non-survival
■ Patient admitted to PWC
■ Patient weaned in referring ICU
■ Presumed weaned/non-survival

Reason for Consultation



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