5 YEAR RETROSPECTIVE REVIEW OF WINCH OPERATIONS AT LIFEFLIGHT RETRIEVAL MEDICINE, QUEENSLAND

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BACKGROUND AND AIMS

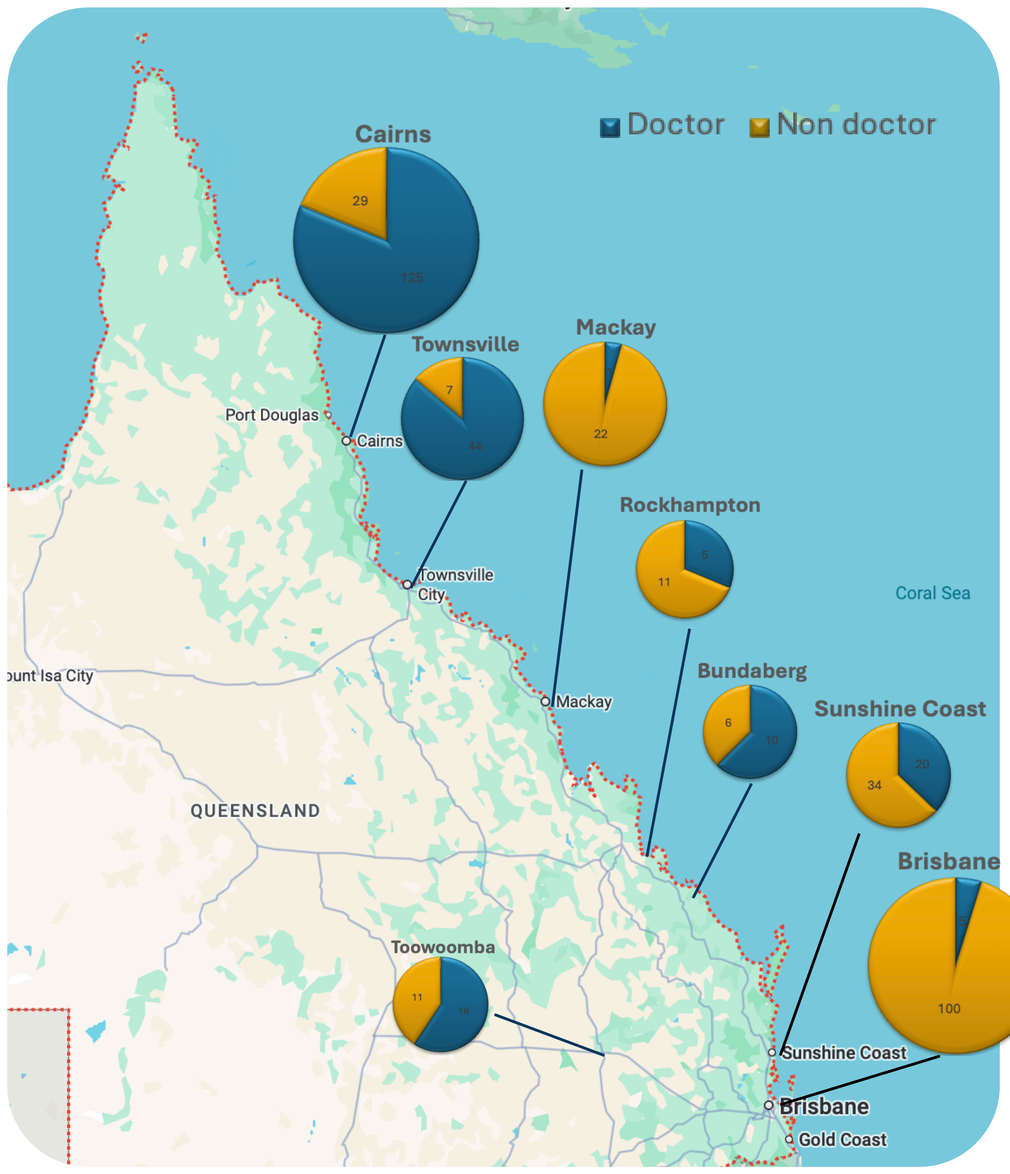
- **LifeFlight Retrieval Medicine** is a large not-for profit organisation undertaking over **8,000 retrievals annually** of which approximately **90 a year** include winching one or multiple patients.
- This retrospective audit is a **5 year review** of **446 winch** missions across **Queensland, Australia.**
- The aim was to profile **patient** and **mission characteristics**, **crew configuration**, and **interventions** provided.
- Winching is a **highly technical** procedure, **infrequently** practiced in the provision of care, with a **high risk** and **large credentialing** burden. It is a significant organisational financial commitment.
- The optimal crew configuration is uncertain.

METHODS

- **Retrospective, observational** chart review of winch missions between **2020** and **2024**.
- Clinical data from **Air Maestro**, **LifeFlight Medical Service's online case registry**
- Records are **completed at time of care** and stored routinely as part of organisational governance.

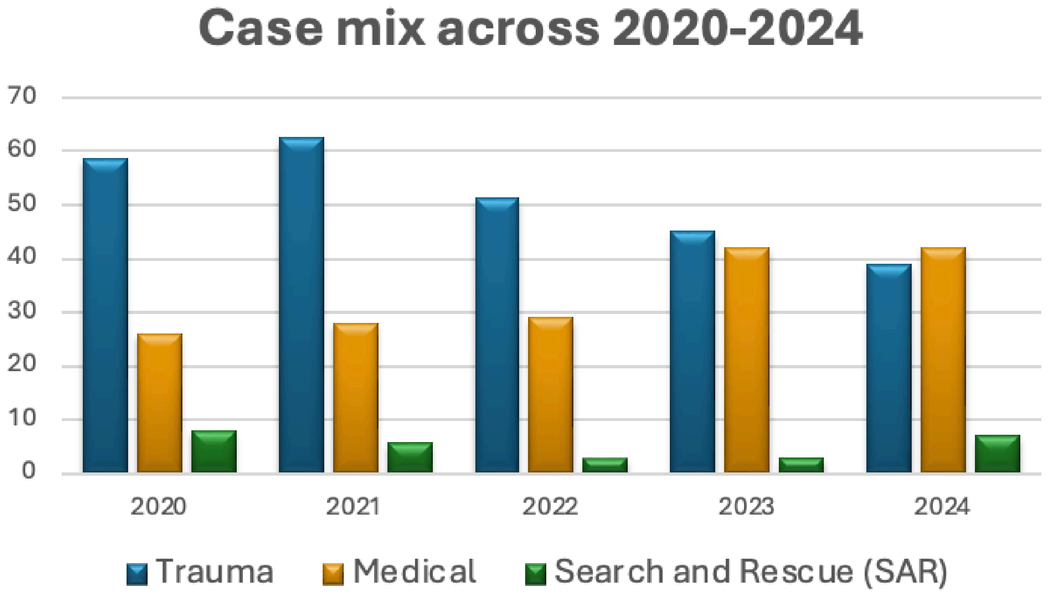
RESULTS

- Mission terrain: **68%** (303) performed **over land** and remaining **32%** (143) over **water.**
- Time of day: **92%** occurred **during daylight hours**

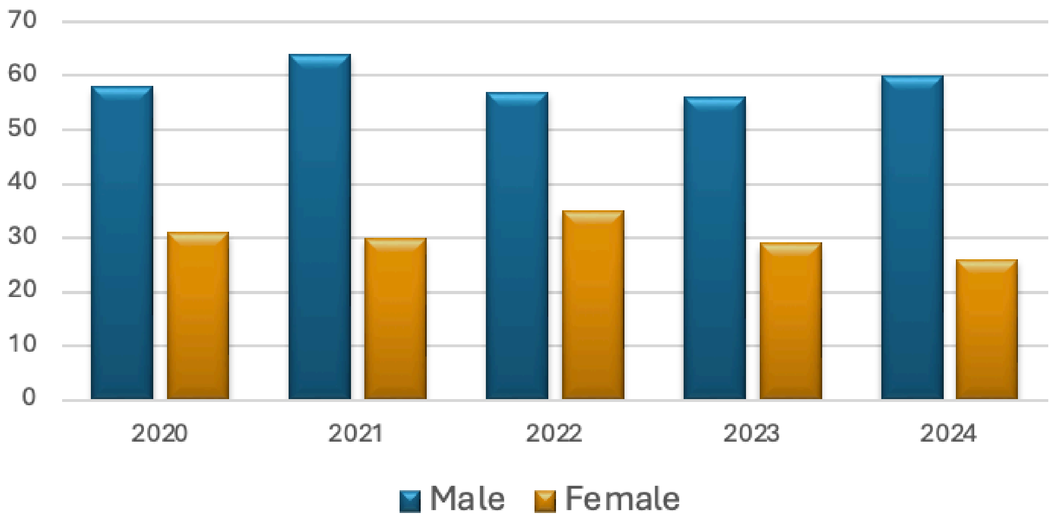


- **Distribution of winch missions** across LifeFlight bases
- Highlights geographic **variability in crew configurations**
- **Doctor** = doctor winched **in addition to a Rescue Crew Officer (RCO) and / or Flight Critical Care Paramedic (FCCP)**
- **Non doctor missions** = **RCO and / or FCCP only**

Case mix across 2020-2024

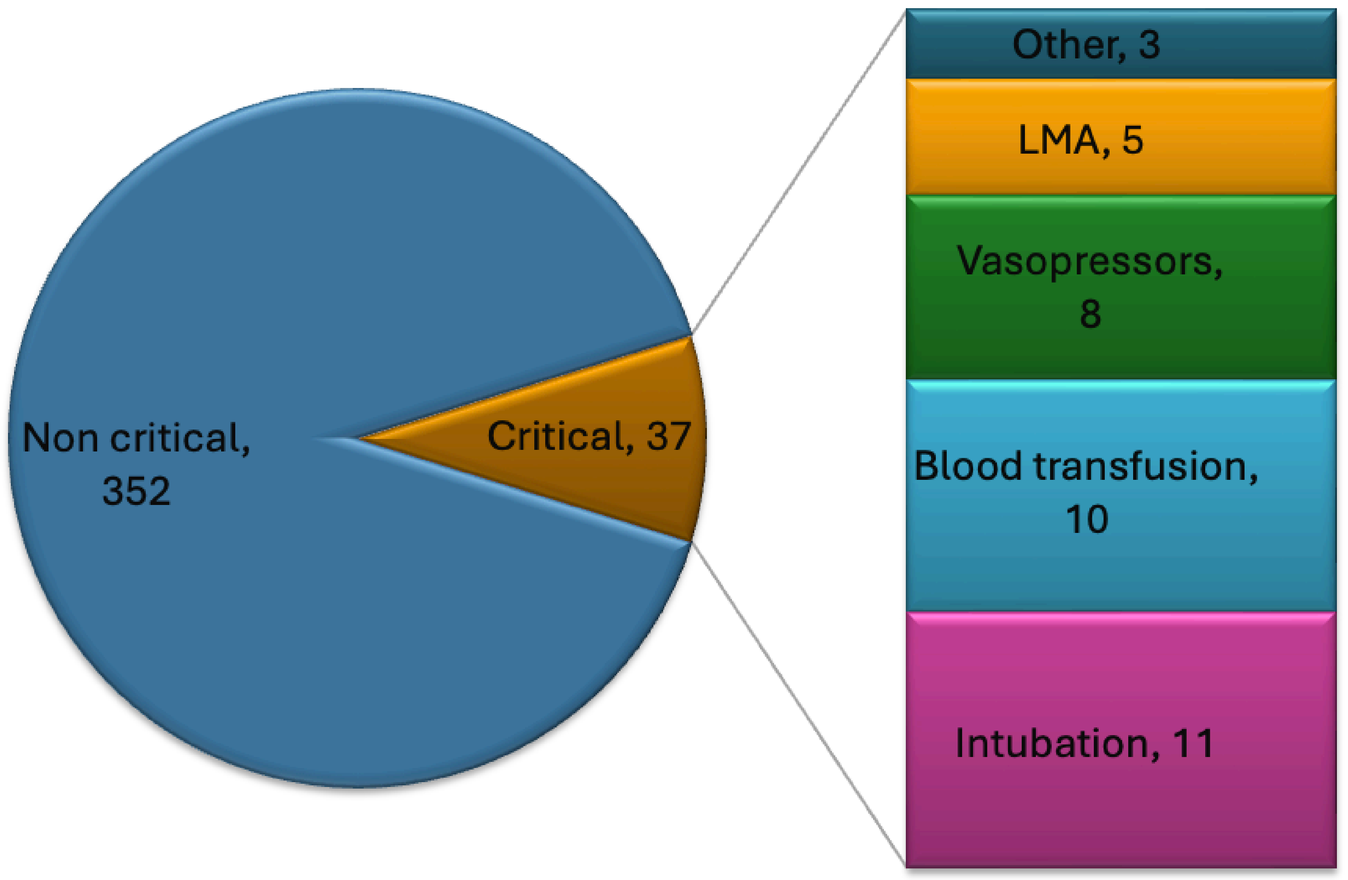


Patient demographics



- **Median age** was **46 years old** with 2020 having the lowest median at 35 years and 2023 the highest median at 48

Critical vs non critical interventions



CONCLUSIONS

- Approximately **1% of LifeFlight missions involve winch** operations
- **Only 11% of the medical interventions** performed on these winch missions **require a highly trained flight paramedic or doctor.**
- Given the large number of medical staff employed across the organisation, the high relative risk of winch operations, and low frequency of critical interventions, the **training and credentialing of <u>all</u> medical staff should be re-considered.**
- **Geographical variability** may support **base specific** rather than statewide **crew models** and configurations.

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