

High-dose vasoactive agents in aeromedical retrievals for septic shock: a role for vasopressin?



B Aston, K Allen, A Hamilton

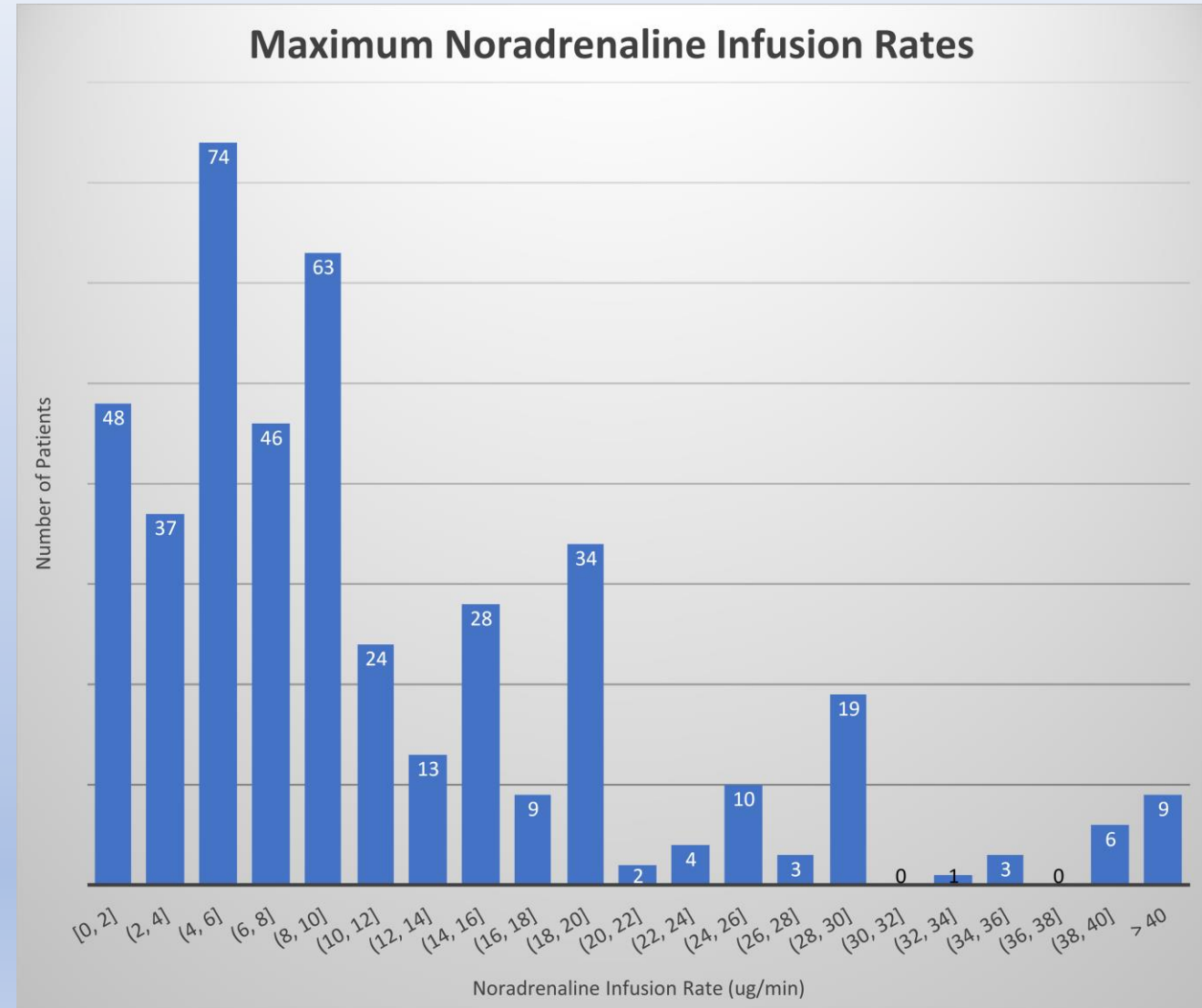


Background & methods

- Sepsis and septic shock are major healthcare problems with significant morbidity and mortality. Prompt identification and management improves outcomes. Early vasoactive agents are fundamental in achieving a MAP goal of 65mmHg.
- Surviving Sepsis Campaign Guideline 2021:
 - Noradrenaline strongly recommended as first line agent
 - Vasopressin recommended as second line therapy for refractory shock (Adrenaline third line)
- Study Method:
 - Retrospective chart review of 12,940 cases performed by Lifeflight in 2020 & 2021.
 - 1,158 patients received vasopressors during their aeromedical retrieval
 - 428 patients on vasopressor infusions for sepsis
 - Review of cases to determine who met criteria for vasopressin infusion (High dose infusions: >20ug/min or multiple co-infused vasopressors)
 - Publication of results: *High-dose vasoactive agents in aeromedical retrievals for septic shock: A role for vasopressin?* EMA, 35(2), 2022

Results

- 115 patients (27%) received high dose infusions or infusions of multiple inotropes and met criteria to receive vasopressin.
 - 45 dual pressor infusions
 - 63 high dose Noradrenaline
 - 7 high dose Adrenaline
- Mean infusion rate:
 - NorAdrenaline: 13 ug/min
 - Adrenaline: 16 ug/min



Conclusions & Recommendations

- Septic shock is the leading indication for the use of Vasopressors by LifeFlight, with 115 patients meeting criteria for vasopressin therapy in 2020 & 2021
- Vasopressin is suitable for inclusion in a retrieval drug kit. It is small, inexpensive, stable at room temperature, long shelf life.
- LifeFlight has included Vasopressin in its drug kit from February 2023 and has a clear protocol for use.
- Prospective review of post implementation utilisation is planned