

Scoping review to explore extubation success within ICU and causes of extubation failure

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Background

***Extubation failure* occurs in 10 to 20% of patients**

Is associated with poor outcomes:

-prolonged ICU stay

-VAP

-ICUAW

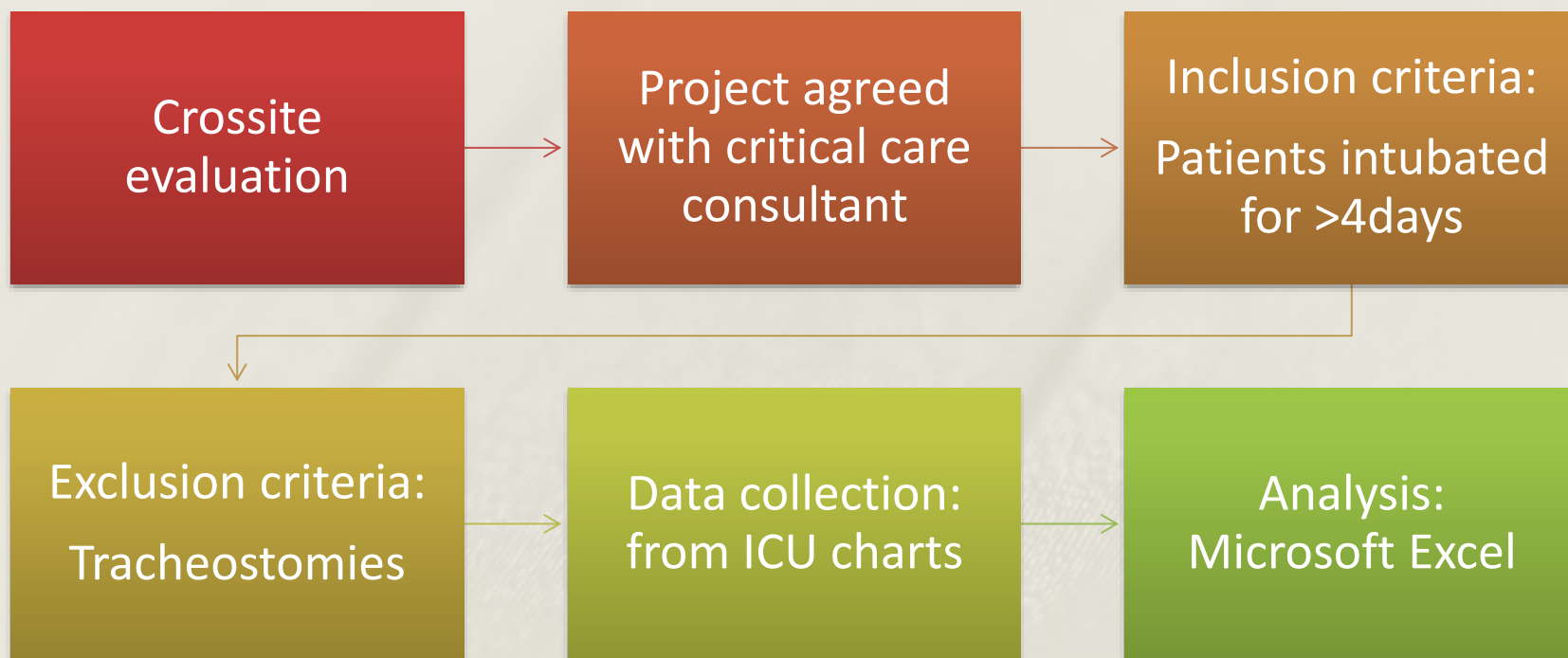
-high mortality rates of 25 to 50% (Arnaud W. Thille, et al 2013)

Aims

Investigate rates of
extubation success
crosssite Intensive
Care Unit

Explore reasons
for extubation
failure

Methods



Results

Total of 43 patients included.

Average age of 53.9 years +/- 14.3

Average Clinical Frailty Score (CFS) of 3.03 +/- 1.45.

Groups included: Respiratory failure (30%), Post operative (38%), ECMO (9%) and Cardiac Arrest (2%).

Crosstie 37% of 1st time extubation were unsuccessful.

Results

Reasons of extubation failure:

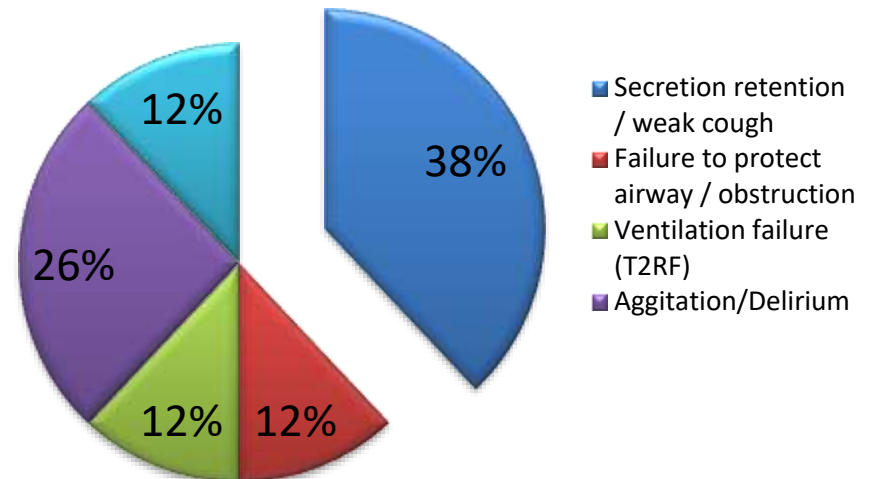
Secretion retention (38%),

Agitation (26%)

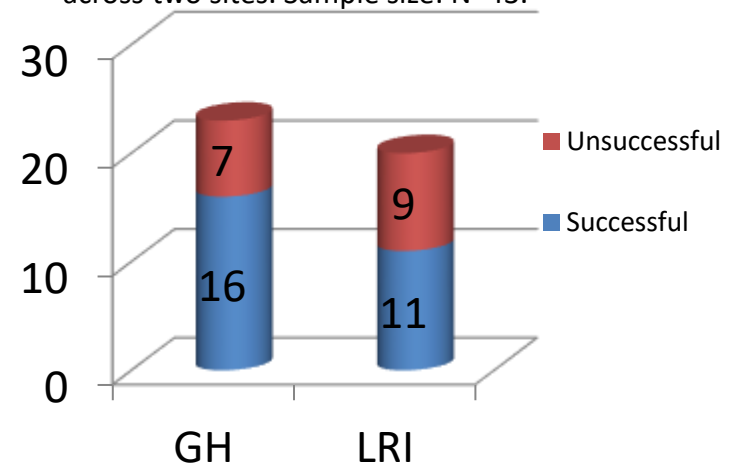
Reduced level of consciousness (12%).

In 35% of cases the physiotherapy team were unaware of the extubation plan.

- Fig 1, Crossite combined analysis for reasons of extubation failure



- Figure 2. Comparison of first-time successful and unsuccessful extubations across two sites. Sample size: N=43.



Conclusions

Higher(37%) than average (10-20%) rates of extubation failure within the trust.

Primary reason **secretion retention** and weak cough.

Significant proportion (35%) of 1st time extubations occurred without prior review by a physiotherapist.

Further plan

Further projects :

- Enhanced communication to improve success rates of extubation.
- implementation of extubation checklist
- Physiotherapy involvement in decision making.





Any questions?

Thank you for listening.