

A new method to improve monitoring of mechanically-ventilated patients in intensive care.



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WHAT IS THE BENEFIT *VERSUS* RISK OF MECHANICAL VENTILATION IN INTENSIVE CARE?¹



Life-saving intervention



Breathing support

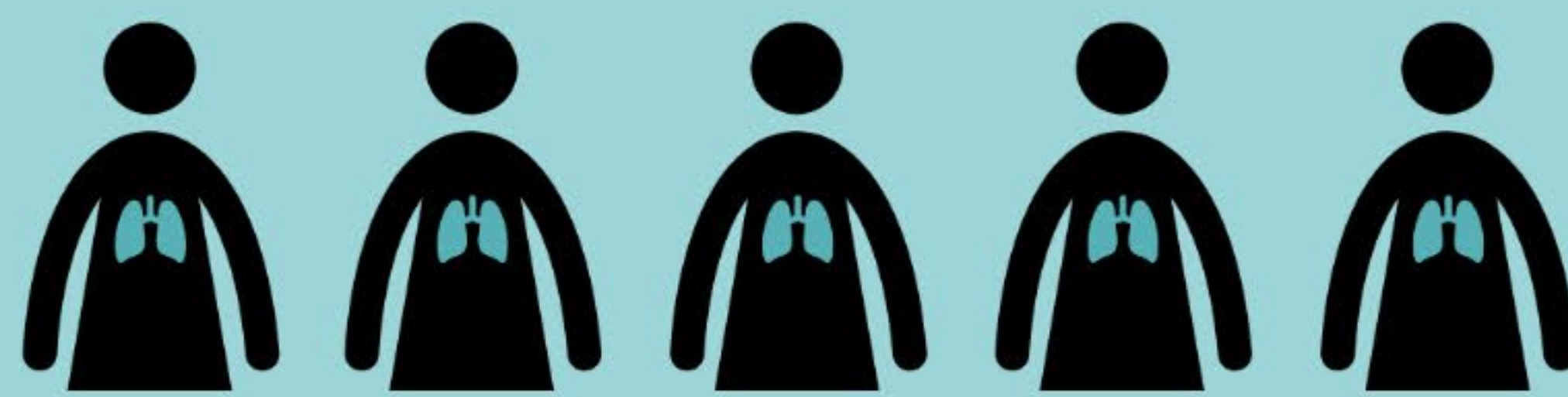
VS



Lung injury



Longer hospital stay

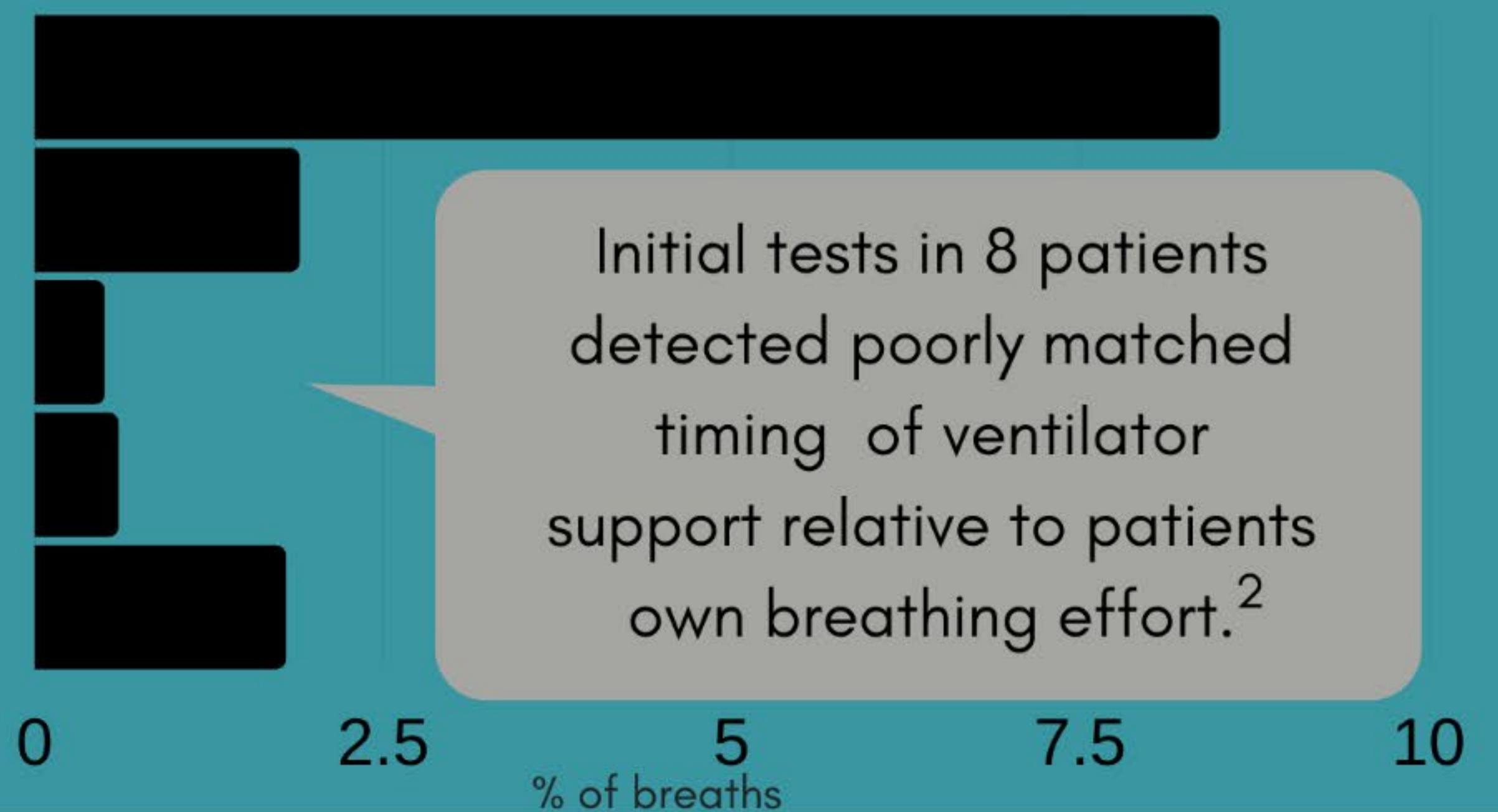


POORLY TIMED MECHANICALLY ASSISTED BREATHS are associated with a **5-fold increase** in intensive care **mortality**²



New technology to evaluate the nature and frequency of timing problems

Total asynchrony
Ineffective triggering
Auto-triggering
Double triggering
Premature cycling



Initial tests in 8 patients detected poorly matched timing of ventilator support relative to patients own breathing effort.²

IMPLEMENTATION STEPS TO DETECT TIMING PROBLEMS



Small-scale physiology tests



Feedback for engineering refinements



Feedback for clinical research use



ICU clinical data collection



Data analysis to assess clinical utility



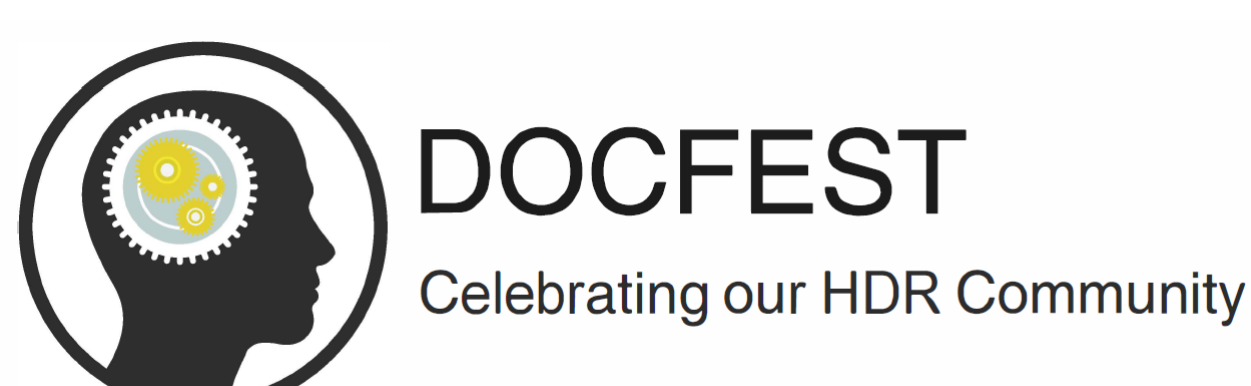
Improved detection and monitoring of **timing problems** between patient and ventilator will provide **new insights** into associated **poor outcomes** in **ICU patients**.

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**INSPIRING
ACHIEVEMENT**