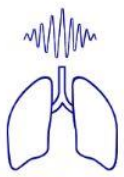


UK NAVA

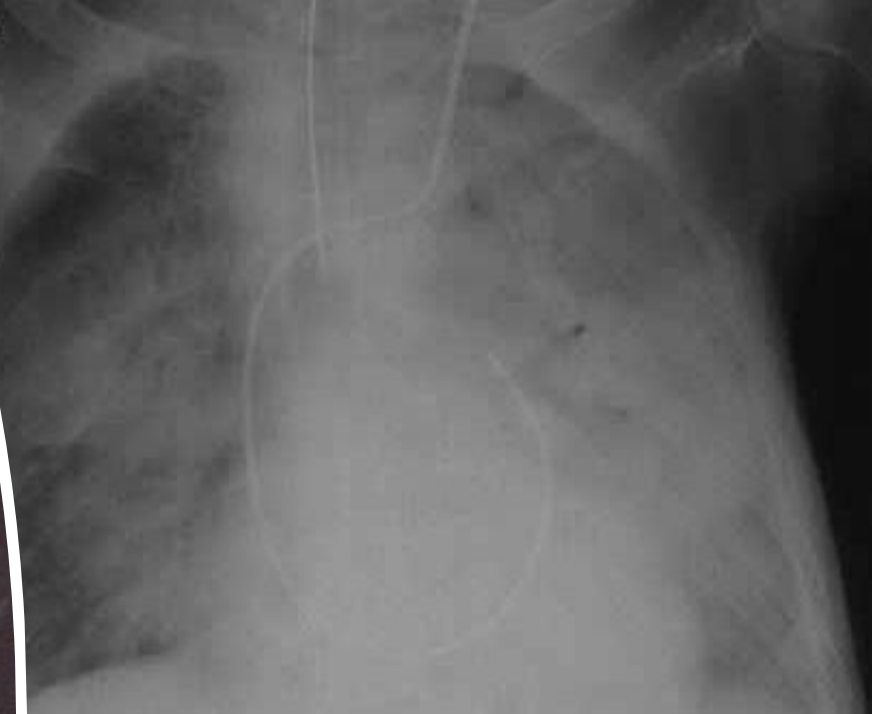
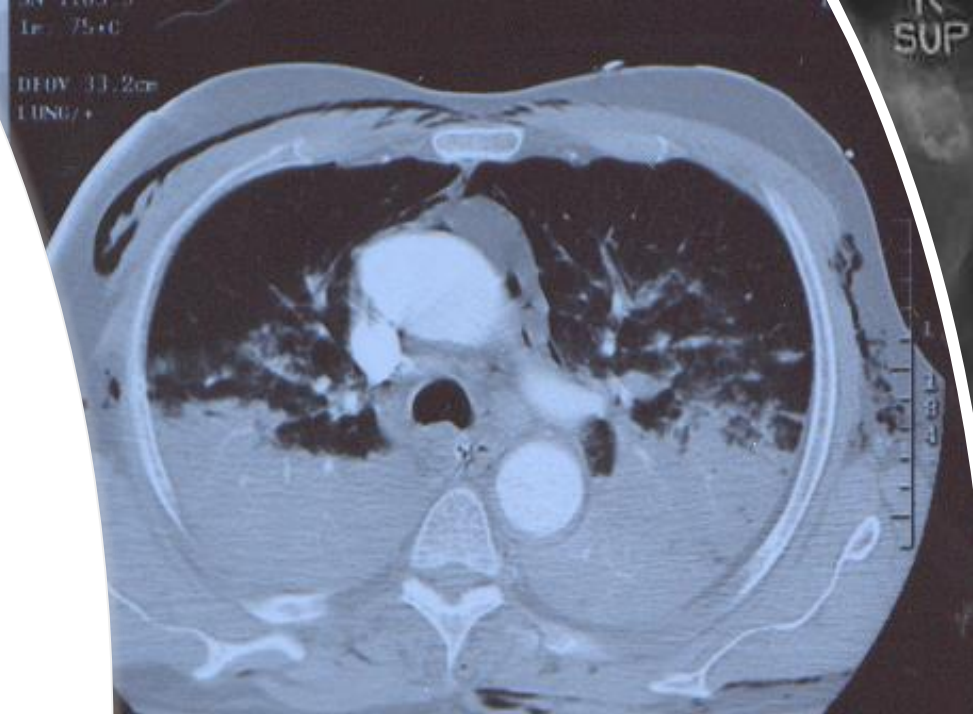
Dr Phil Hopkins

www.UKNAVA.com

King's
Critical
Care



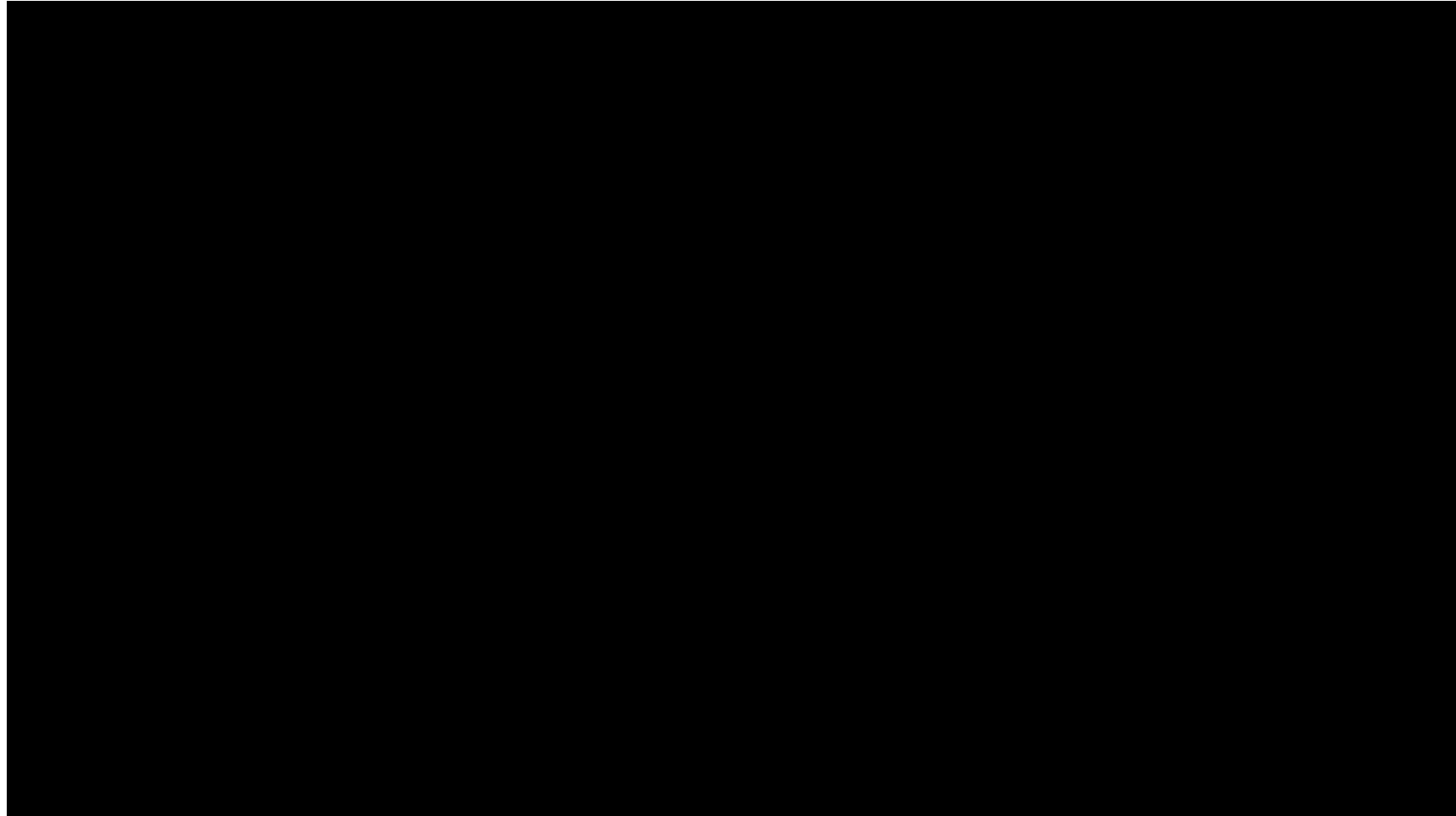
UK NAVA

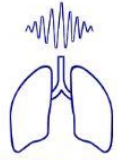


- In 75 days 4.5 million breaths
- VILI and long term human and health economic costs
- VIMI and long term human and health economic costs

Critical Care







UK NAVA



50-60% of ICU admissions receive sedation and breathing support

In around 30% of those, the support is prolonged



Consequences
-Sedation
-Muscle wasting
-Infections/Sepsis
-Psychological injury

Although lifesaving, prolonged support increases the risk of complications, including death



How do we decide what research to do?

- We ask....eg James Lind Alliance
- We test ?Good Question ?Can we answer it
- Will patients, relatives, staff think it is a good question...and will they use the result to improve care/treatments
- Will patients benefit long-term and it will it improve their whole outcome (physical, psychological, quality of life)



James
Lind
Alliance

Priority Setting Partnerships

James Lind & Intensive Care Research



When should physical rehabilitation start and what rehabilitation methods during and after critical illness achieve the best outcomes for patients?



How can patients and their families be best supported as they start living at home again (e.g. health and social care services, ICU support groups, long term follow-up)?



What is the best way to identify patients with, or at risk of delirium or agitation – how should the immediate and long-term effects of delirium or agitation be monitored and managed?

James Lind & Intensive Care Research



How can we enhance patient comfort during intensive care (ie minimize pain, discomfort, agitation and anxiety) and how does this improve patient outcome?

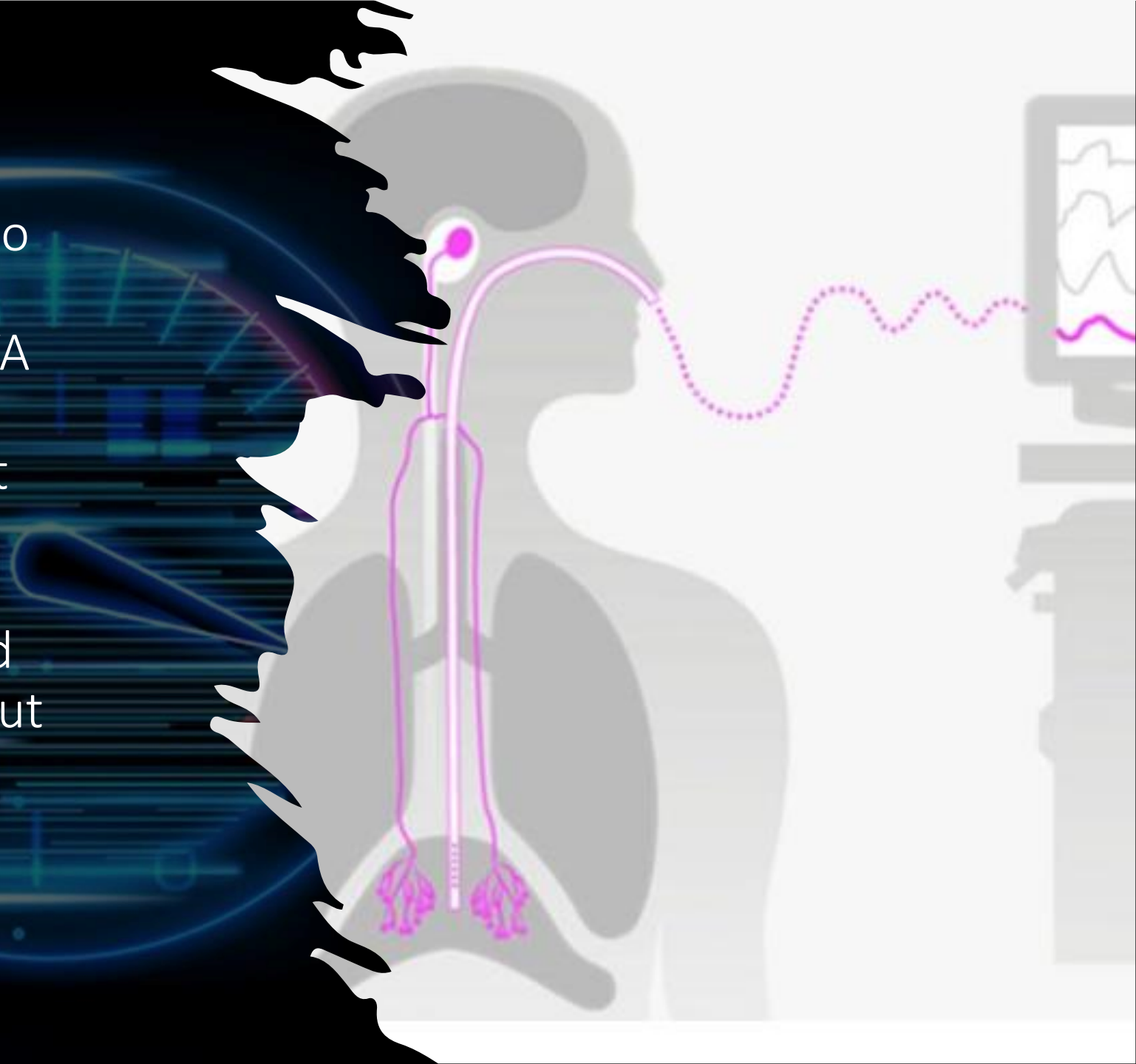


How can the physical consequences of critical illness (such as muscle wasting, weakness, nerve damage) be prevented and what is the best way to support recovery from these after intensive care?



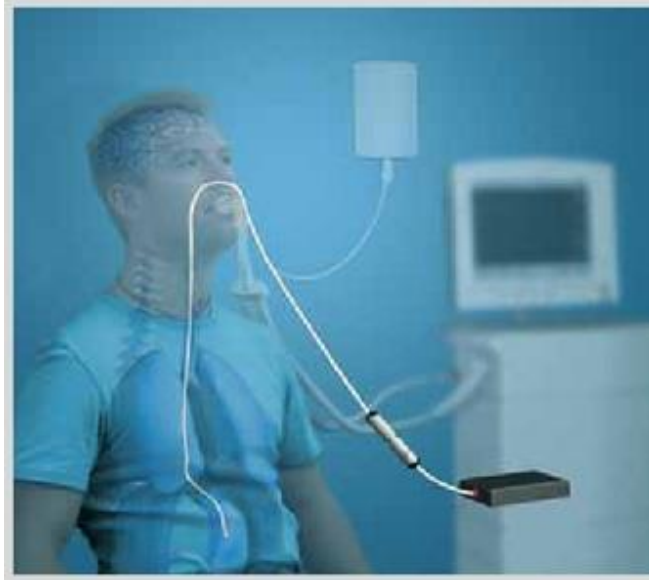
What is the best way of preventing damage to the lungs of patients receiving respiratory support (ventilation)?

UK NAVA— This project aims to see whether awareness of patient ventilator drive ('NAVA monitoring') and better synchronised pressure support ('NAVA Mode') will help get patients off ventilators more quickly compared to standard care (pressure support without NAVA monitoring).



NAVA technology – What is it? How to do it.



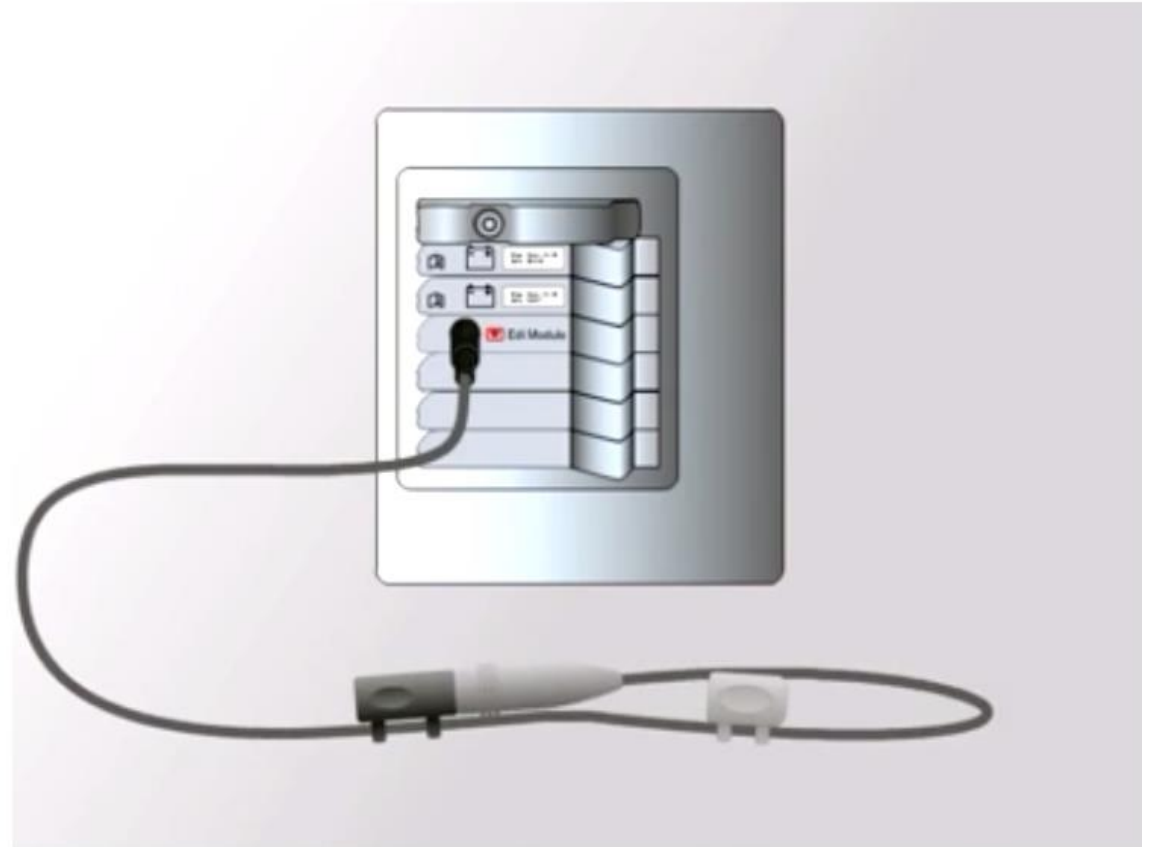
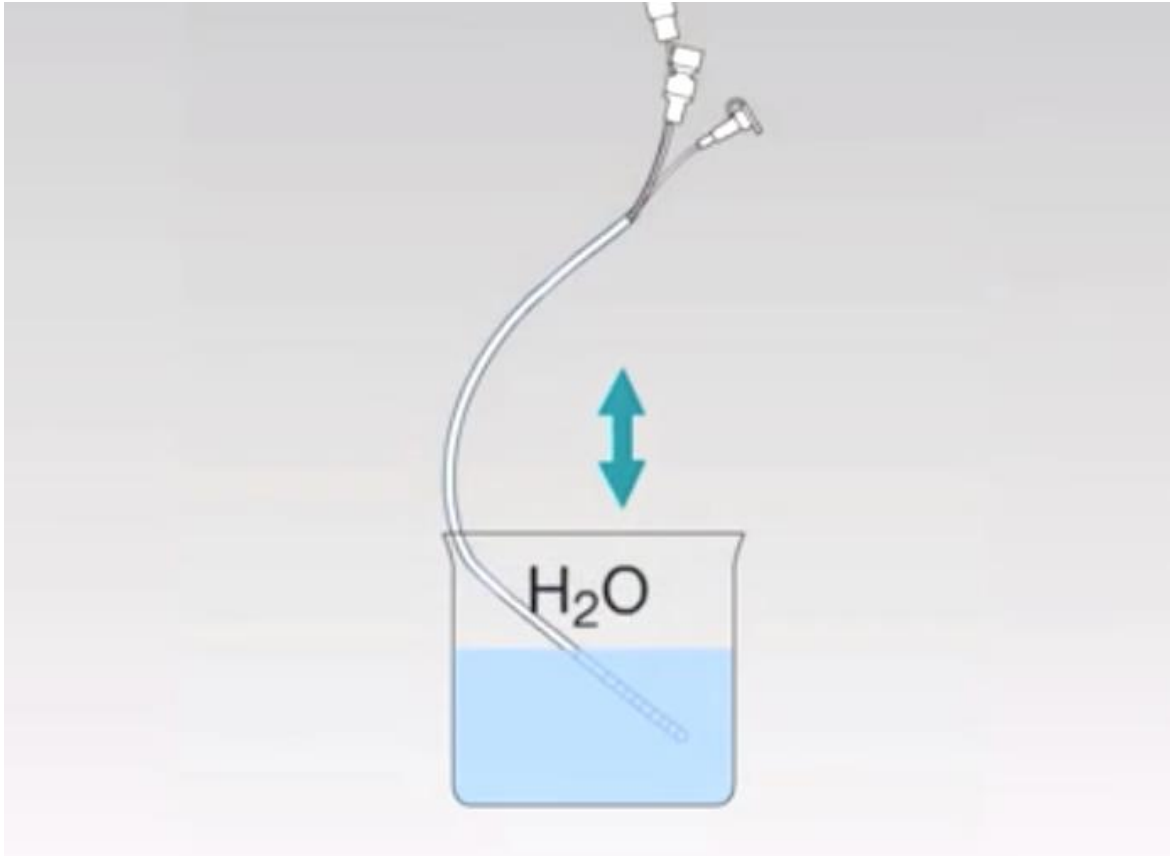


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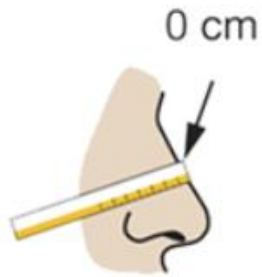
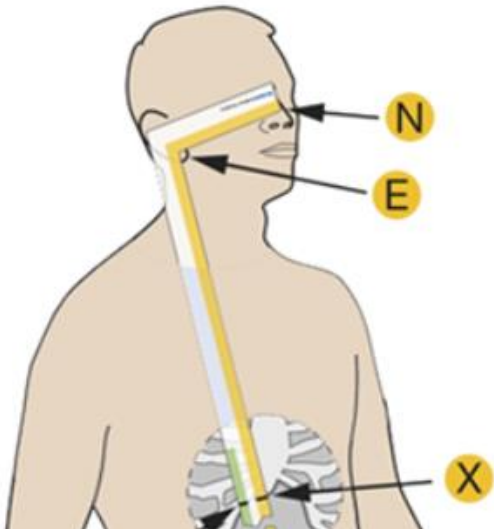
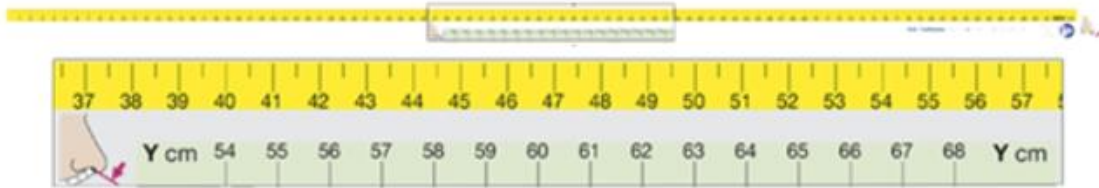
Getting the NAVA catheter down



Before insert



Insertion distance – make sure **safe** to feed

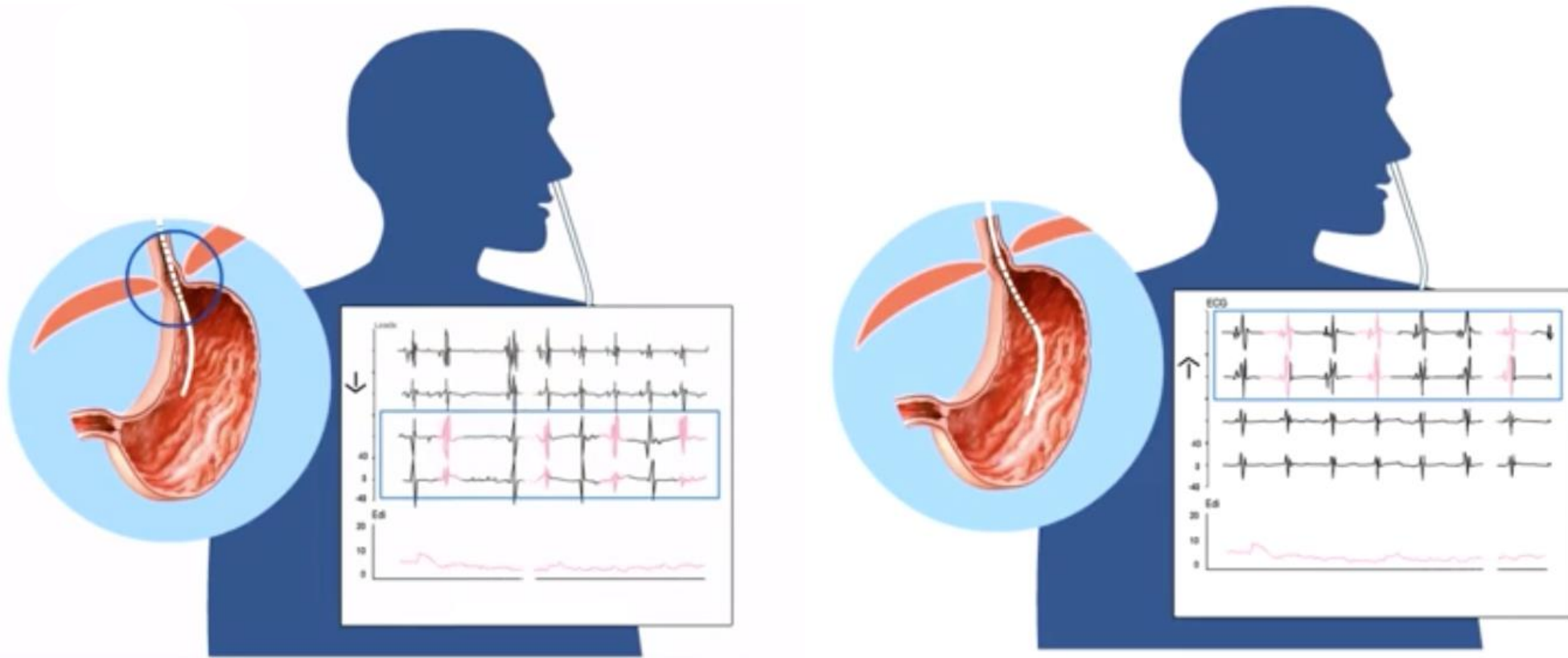


PRVC CALCULATION TOOL interface showing patient data and respiratory parameters.

Parameter	Value
Patient height	> 140 cm
Patient weight	16 ft 125 cm
Ett catheter size	16
Measure NEX	55 cm
Ett catheter insertion distance	68 cm
PEEP	8
RR	15
IE	1:2.0
O ₂ conc.	21
MV _e	2.1
VT _e	157
VT _e	143
VT/PBW	3.2
Capn	17.0

Bottom status bar: O₂ 100, O₂ conc. 21, PEEP 8.0, RR 15, Tidal volume 157

Need small adjustment – case studies



Not in far enough

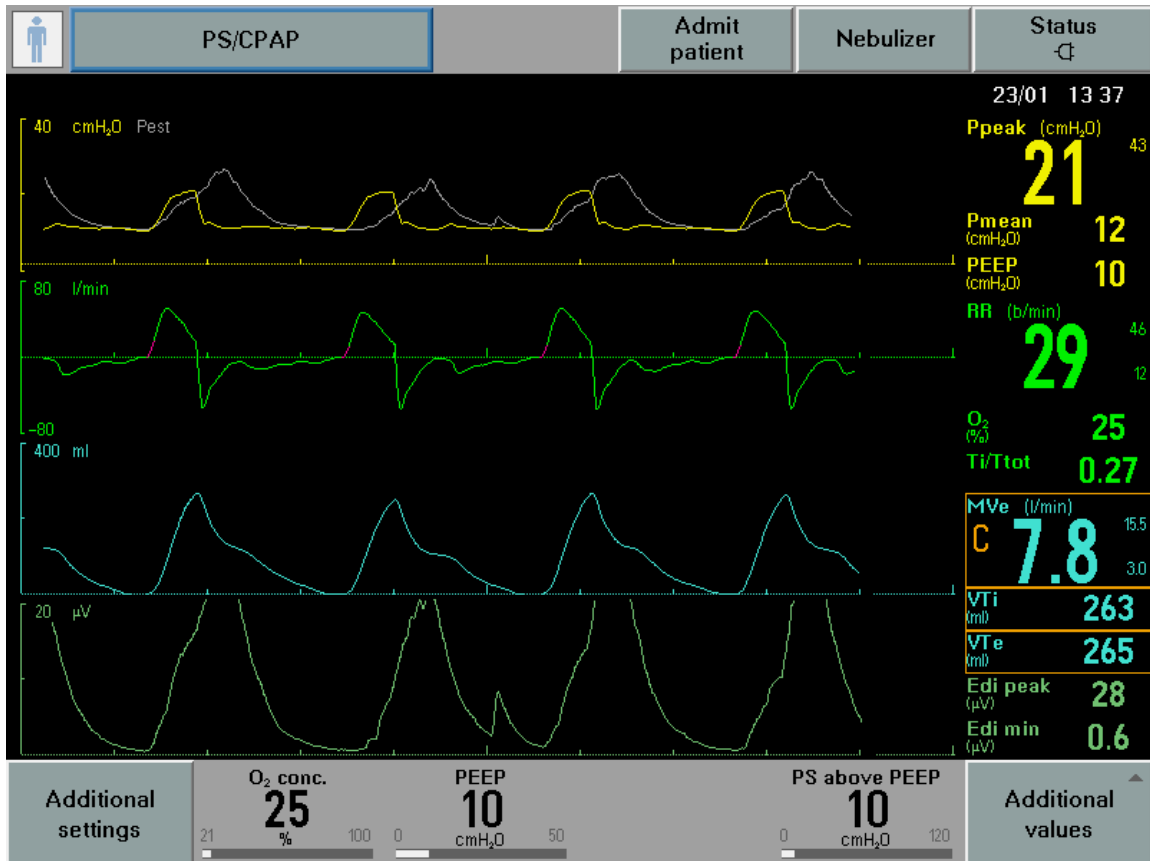
In too far



NAVA Monitoring – is the patient breathing? How well is patient breathing? Is ventilator matching what patient wants?



Using NAVA monitoring



- Monitor the trend in Edi ?improving ?stable
- Monitor effects of changes in supportive care (eg sedation holds; changes in ventilation settings; changes in oxygenation; changes in airway eg cuff down/speaking valve)
- Can use post extubation eg to compare high flow, NIV, CPAP etc



Using NAVA Monitoring

- Is the patient breathing?
- If not - ?why not
 - Over sedation
 - Over ventilation
 - Over oxygenated
 - Brain/spinal cord or phrenic nerve injury
 - Catheter in wrong place

Using NAVA monitoring



II NAVA mode
(patient determines when to breathe AND how to breathe)



NAVA Mode

- More synchronized
- Less sedation/analgesia?
- Better sleep?
- Less delirium?
- Off ventilator quicker?



Weaning NAVA Mode

As with standard pressure support

- Reduce NAVA level over time
- Rest at night – sprints of higher work in day





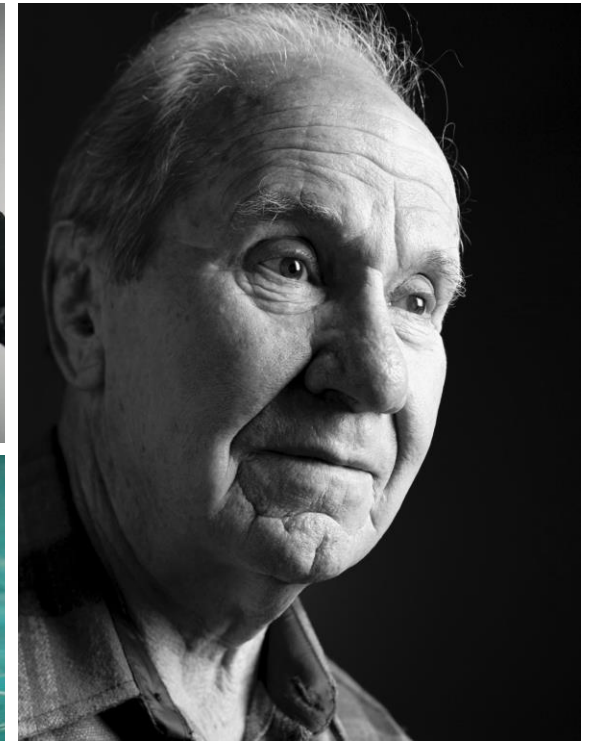
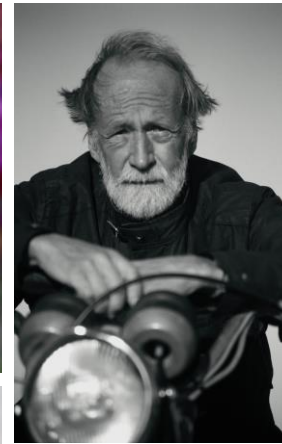
Summary

- Why this research is important –UK NAVA
- How to use NAVA monitoring
- How to deliver NAVA mode
- Why Nurse-led

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are



Save lives
and return
people to
their lives



Thank you



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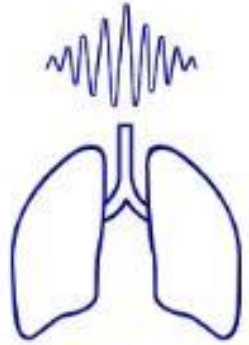
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Critical
care



UK NAVA

Questions?