

Expérience ... Evolution **Kinésithérapie en réanimation de 1973 à 2017...**

Frédéric Duprez et Jean Roeseler

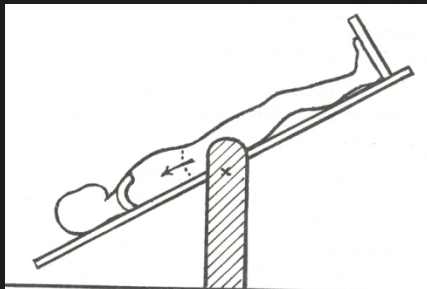
Kinésithérapeutes

Epicura Hornu – UCL Saint Luc

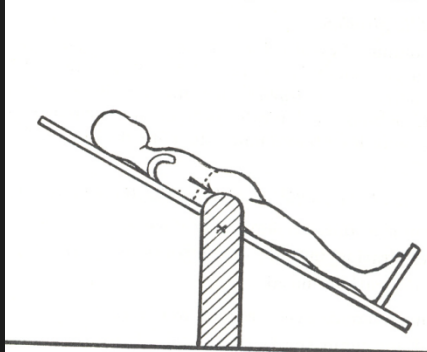


Techniques de désencombrement bronchique

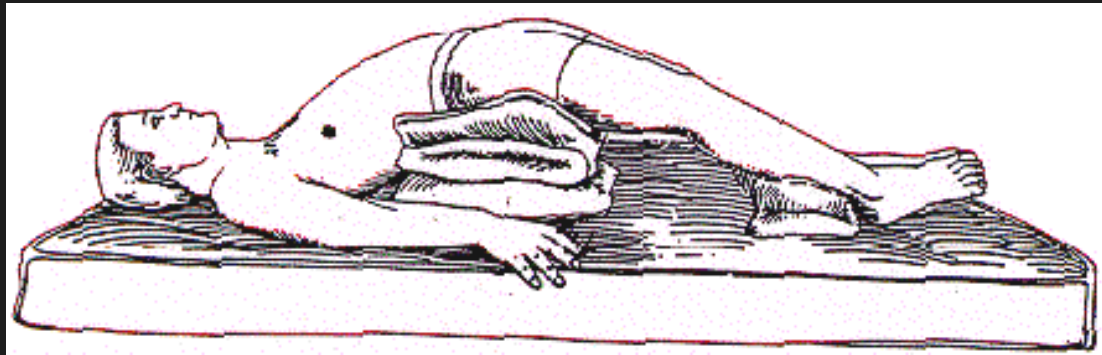
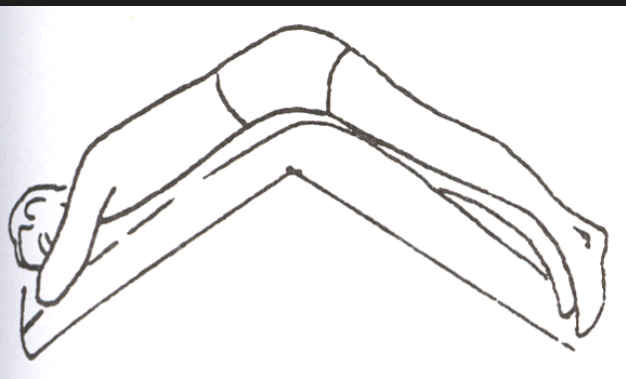
Hier



Expiration aidée ou inspiration contrariée



Inspiration aidée ou expiration contrariée



Aujourd'hui

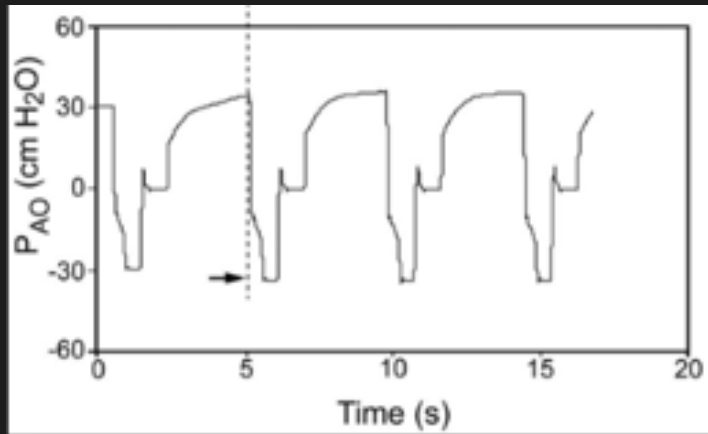


Air Stacking



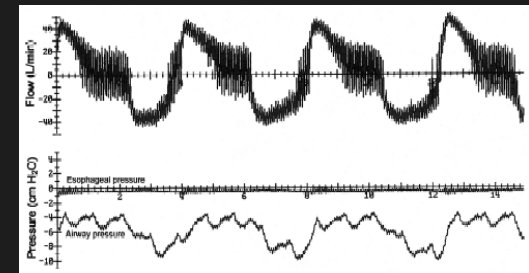
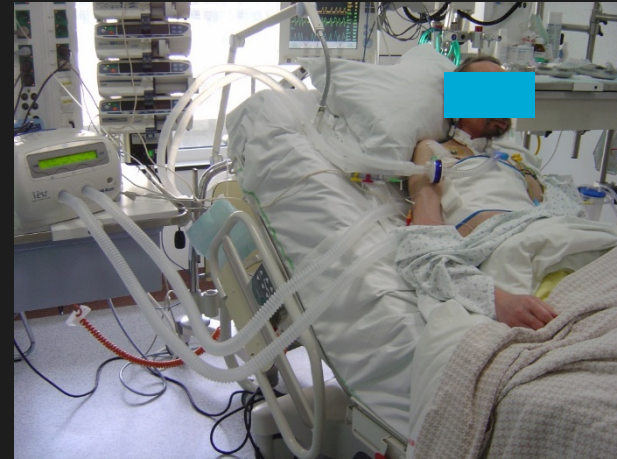
Aujourd'hui

Cough Assit



Aujourd'hui

The Vest



Recrutement alvéolaire

Aérosolthérapie

BIRD IV

Hier

Débit

Pression

Trigger



IPPB

Intermittent positive pressure breathing

- Prévention des complications respiratoires post-opératoire
- Kinésithérapie chez le patient BPCO (aigu et stable)
- Aérosolthérapie

Hier

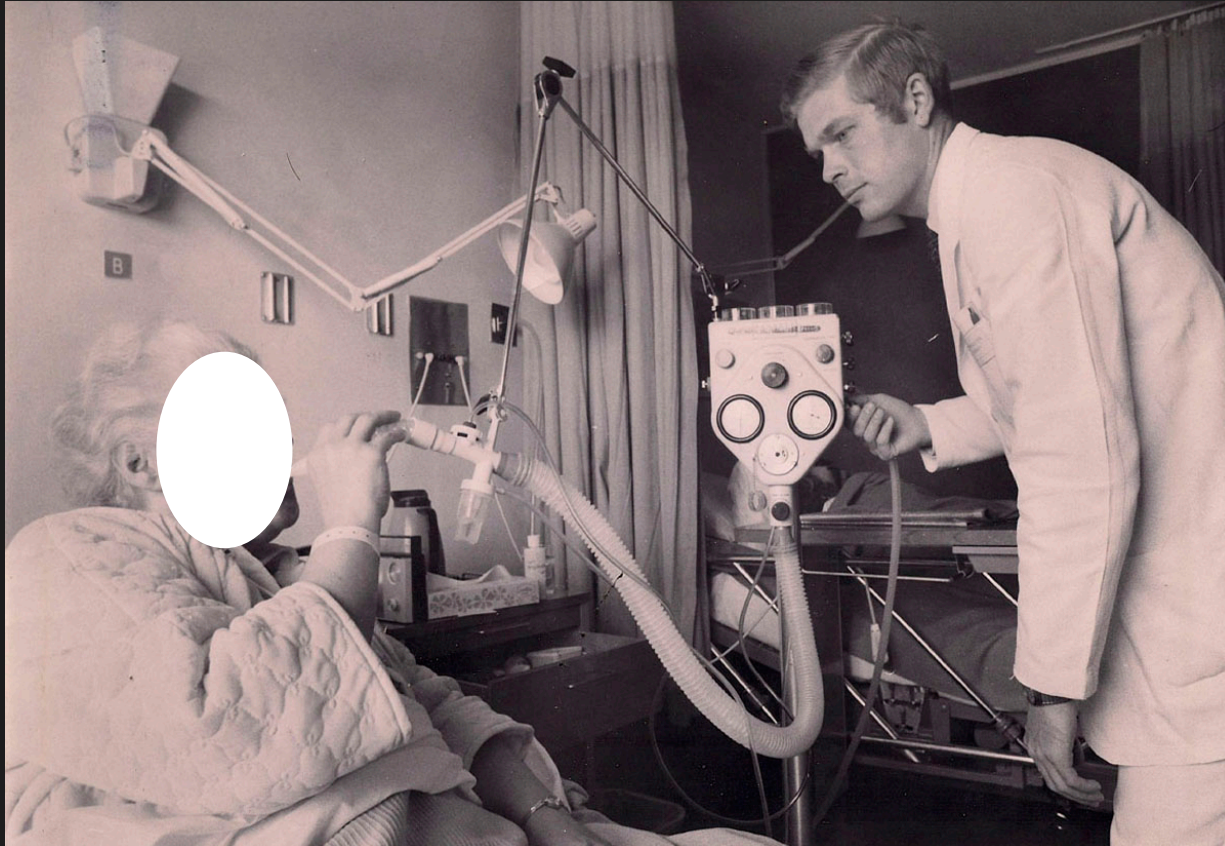
BIRD IV

IPPB

Intermittent positive pressure breathing



Hier



BENNET

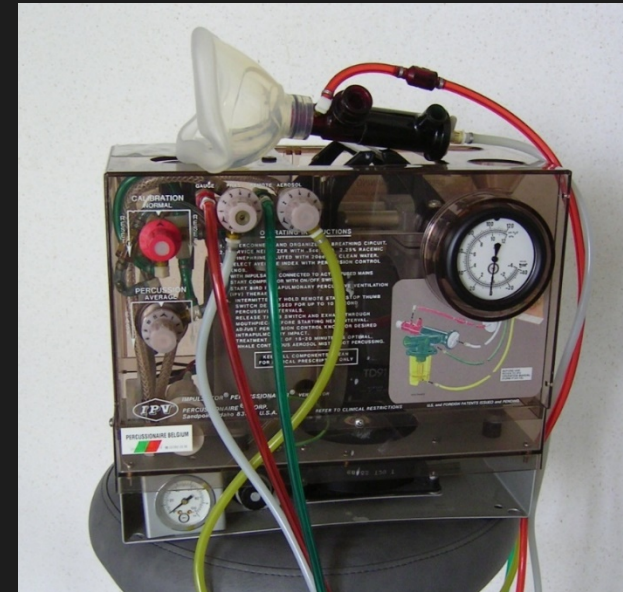
IPPB

Intermittent positive pressure breathing

Hier et aujourd'hui

Percussionnaire

H.F.P.V.®



Bidiwala A. A comparison of high frequency chest wall oscillation and intrapulmonary percussive ventilation for airway clearance in pediatric patients with tracheostomy. Postgrad Med. 2017 Mar;129(2):276-282.



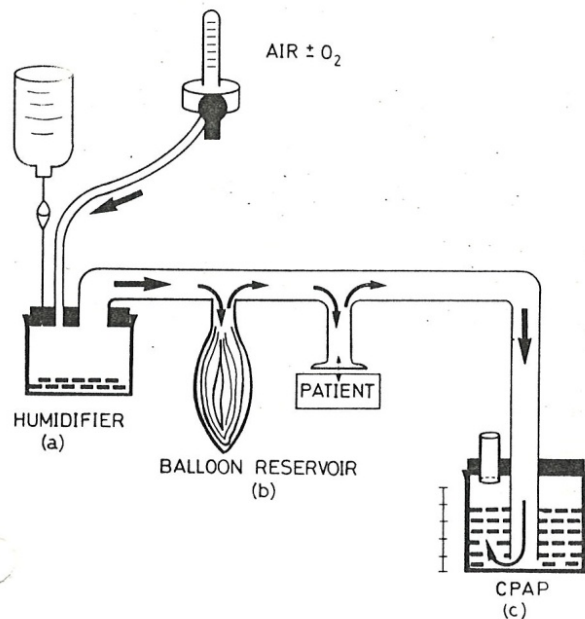
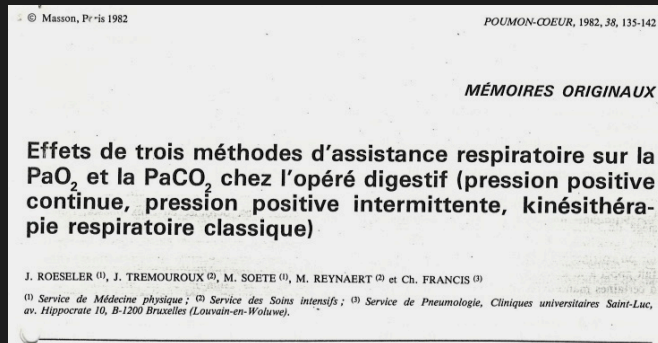


Fig. 1: The system consists of an air source with or without oxygen passing through a controlled heating and humidifying system (a) and connected to a balloon reservoir (b). The amount of CPAP being controlled by the level of water in the exit chamber (c)

Hier et aujourd'hui

CPAP



Buts :

- + Recrutement alvéolaire
- + Correction de l'hypoxémie sans modification de la PaCO₂
- + Prévention des complications respiratoires post-opératoires

Aujourd'hui

CPAP Boussignac



«Monitoring pulmonaire»



SERVO VENTILATOR 900 B
SIEMENS-ELEMA SWEDEN



EXPIRED MINUTE VOLUME



AIRWAY PRESSURE



BREATHS/min



INSP. TIME %



PAUSE TIME %



OFF (2min)



PRESET INSP. MINUTE VOLUME l/min



MAX. EXP. FLOW l/min



SIGH

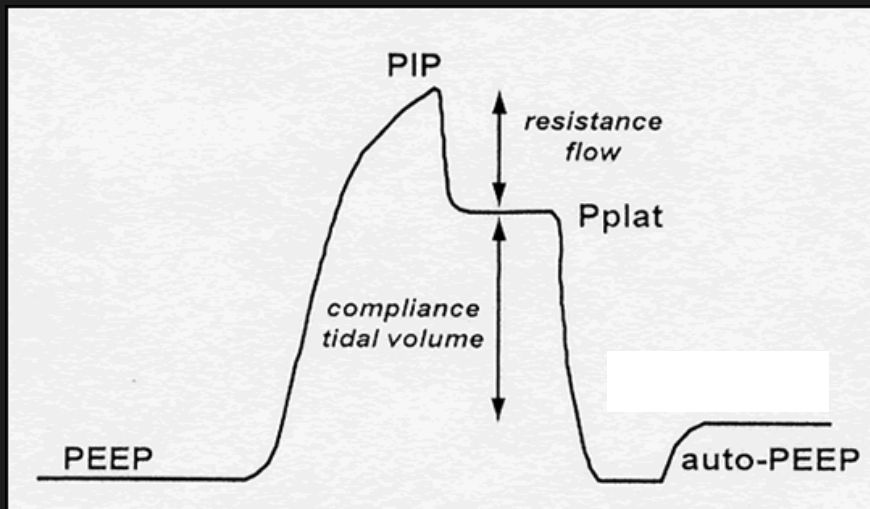
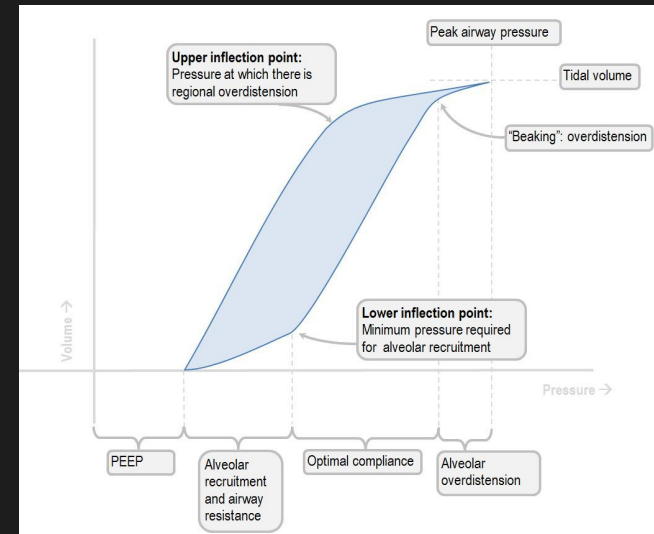
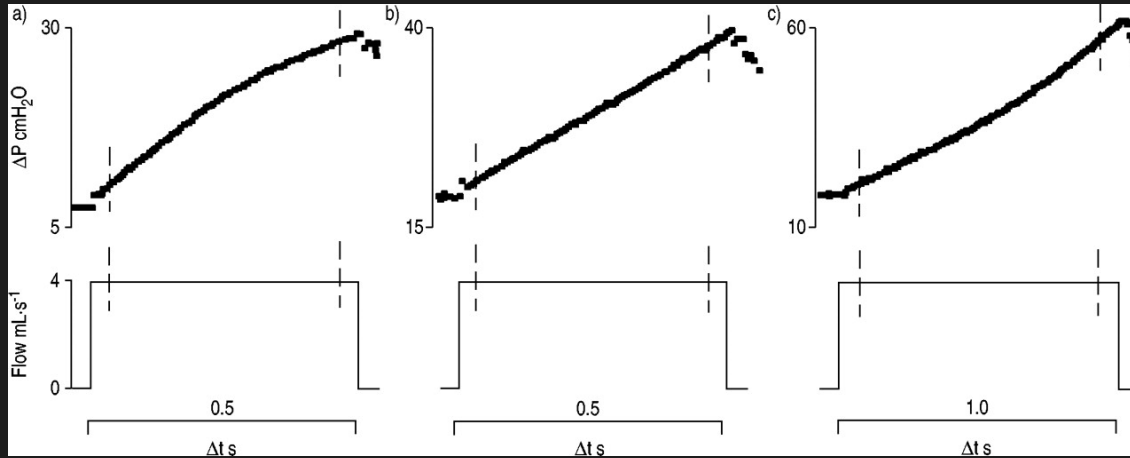
OFF

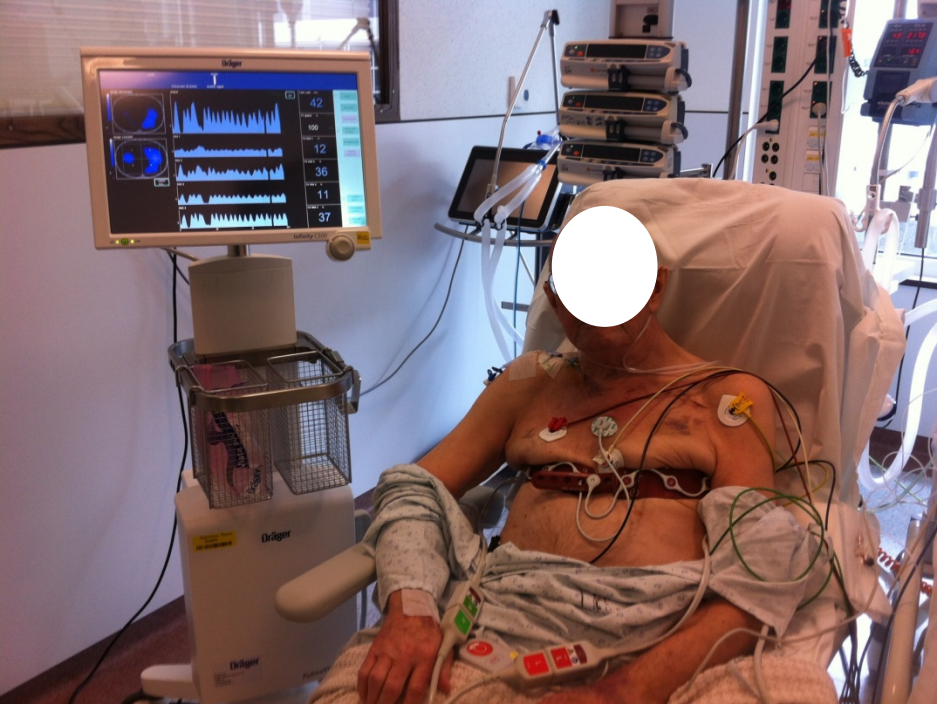


I.M.V.

I.M.V.

Boucles pression-volume, Driving pressure, Stress index Compliance, Résistance





Impédance électrique

Pulmovista

Dräger



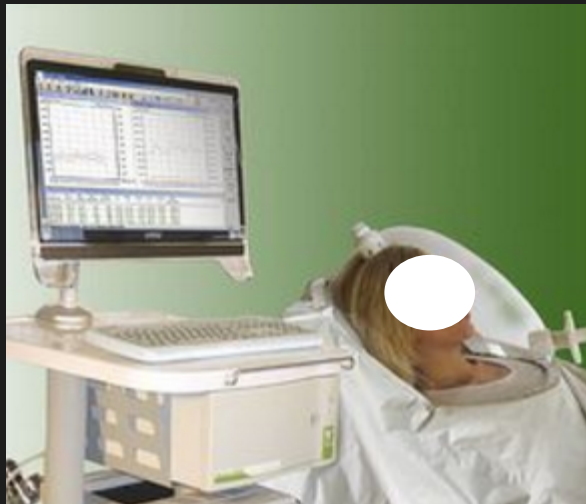
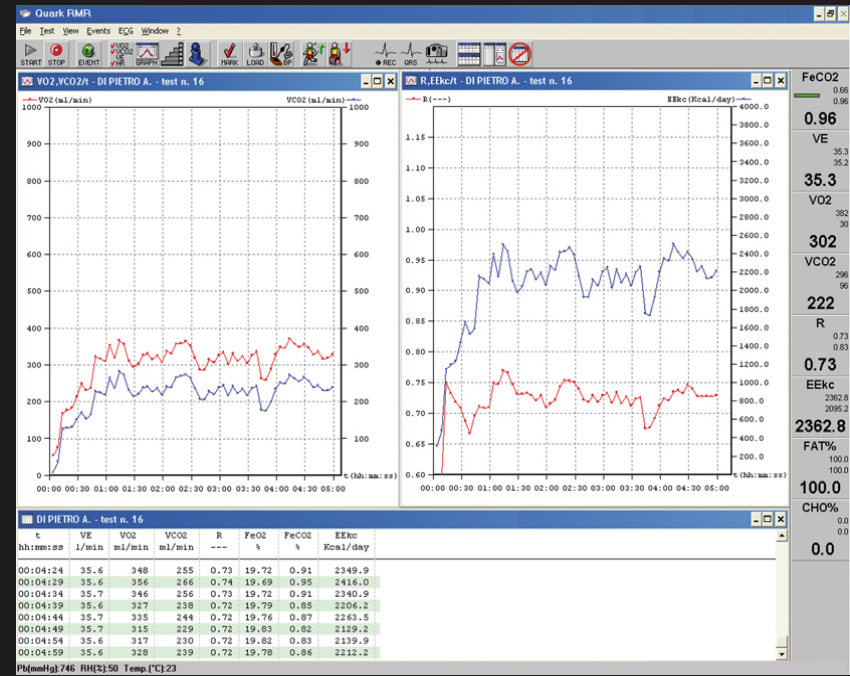
Echographie pulmonaire

Echographie pulmonaire
pour le kinésithérapeute

27 AVRIL 2017



Le Neindre A. Thoracic ultrasound: Potential new tool for **physiotherapists** in respiratory management. J Crit Care. 2016 Feb;31(1):101-9



Intensive Care Med
DOI 10.1007/s00134-014-3218-7

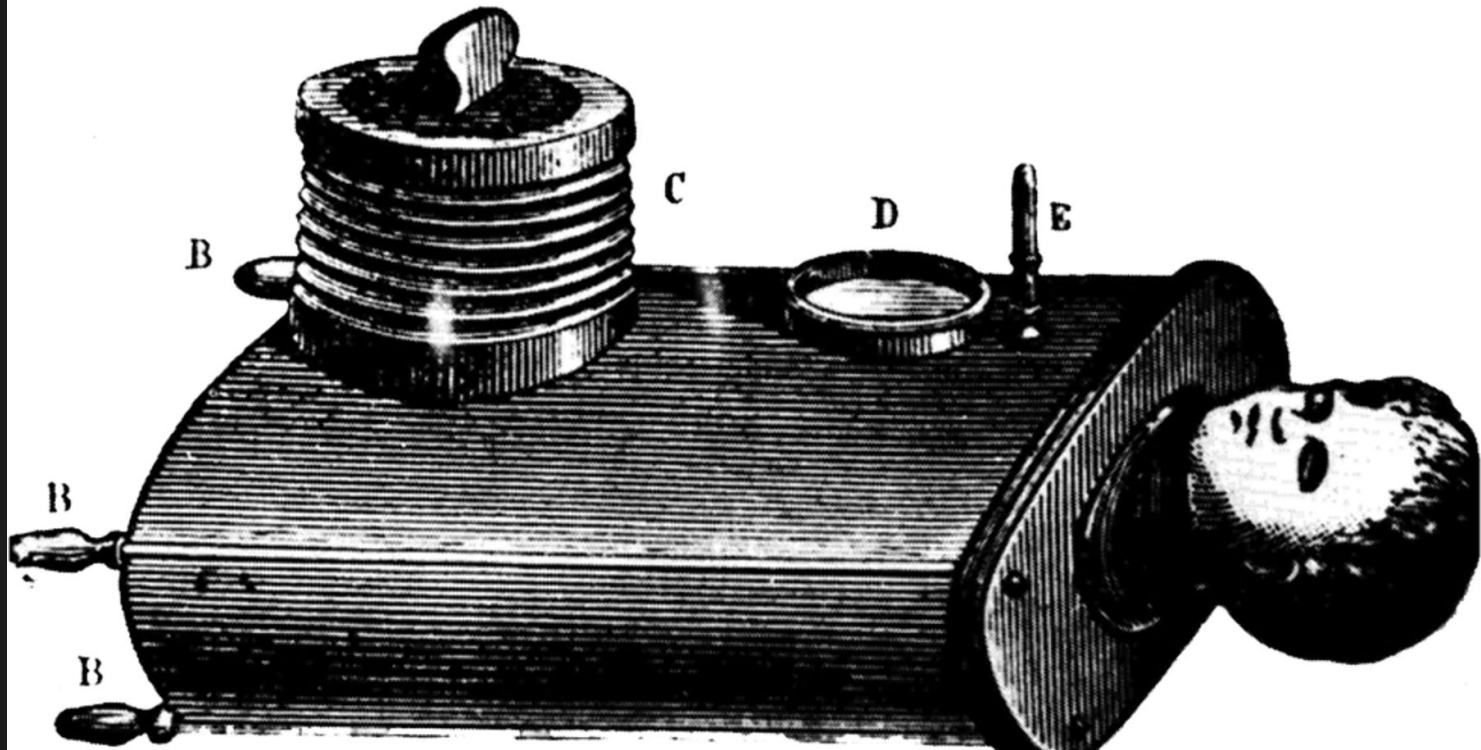
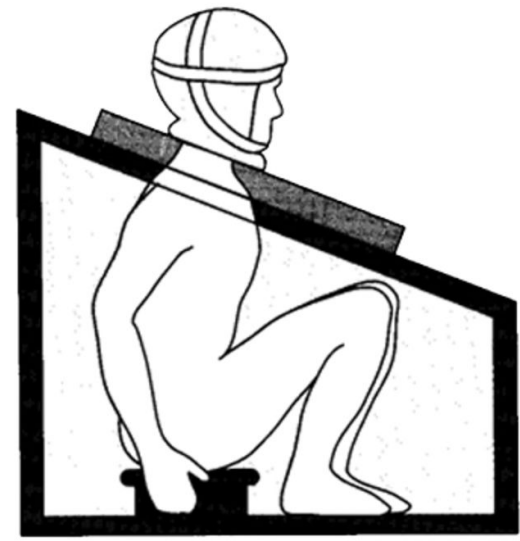
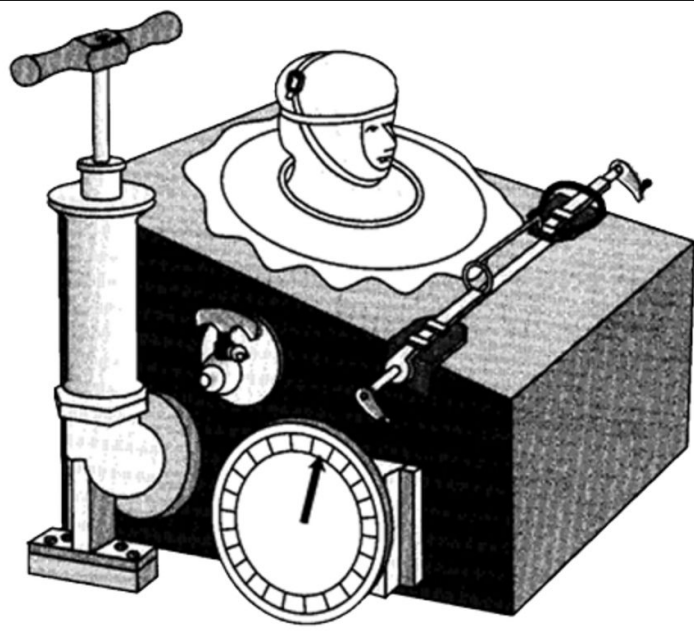
ORIGINAL

Cheryl E. Hickmann
Jean Roesler
Diego Castanares-Zapatero
Eduardo I. Herrera
Arthur Mongodin
Pierre-François Laterre

Energy expenditure in the critically ill performing early physical therapy

Evolution de la ventilation mécanique invasive

**VENTILATION MECANIQUE
NON INVASIVE**



Années 50 épidémies de polio myélite

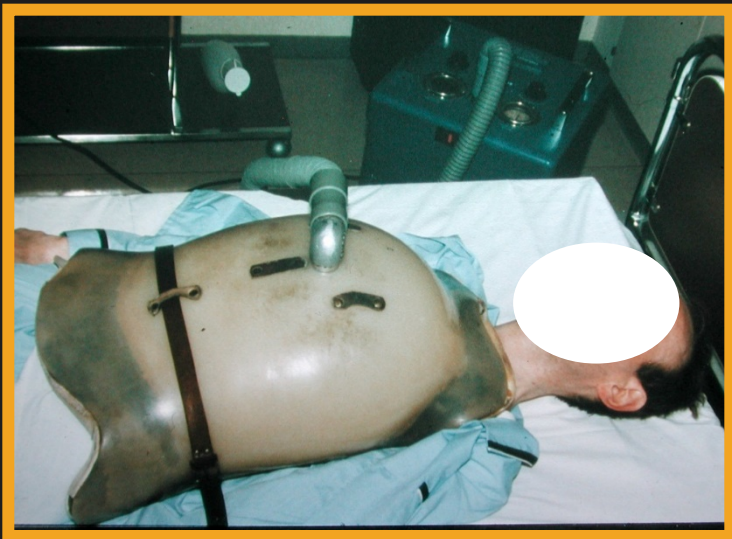




Poumon d'acier portable



Poumon d'acier portable



The New England Journal of Medicine

Copyright, 1951, by the Massachusetts Medical Society

Volume 245

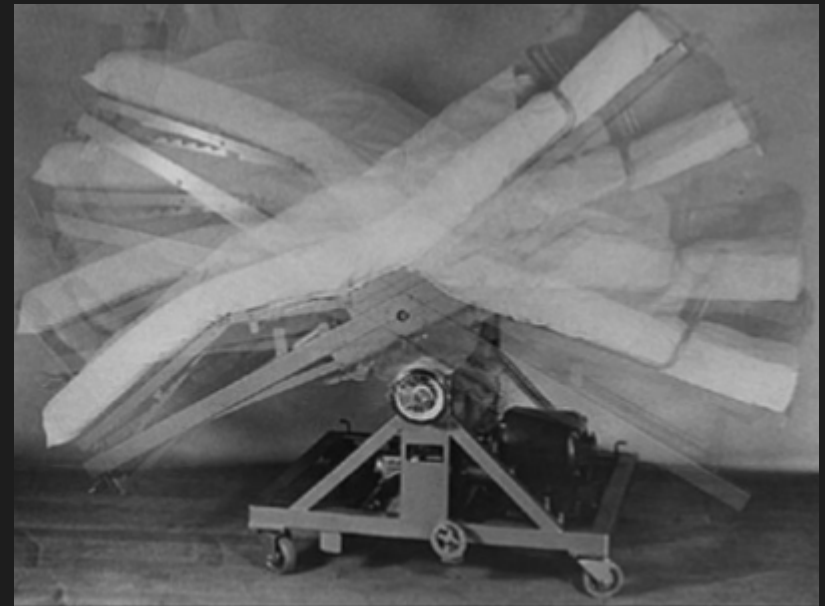
AUGUST 16, 1951

Number 7

THE RAPID-ROCKING BED: ITS EFFECT ON THE VENTILATION OF POLIOMYELITIS PATIENTS WITH RESPIRATORY PARALYSIS*

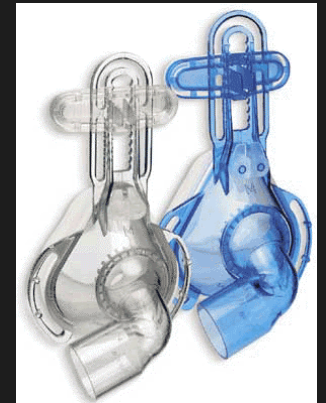
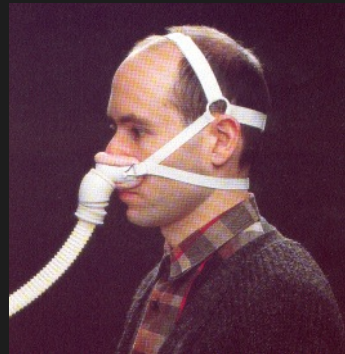
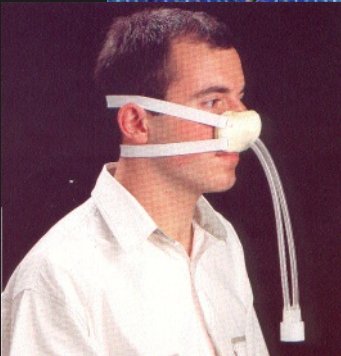
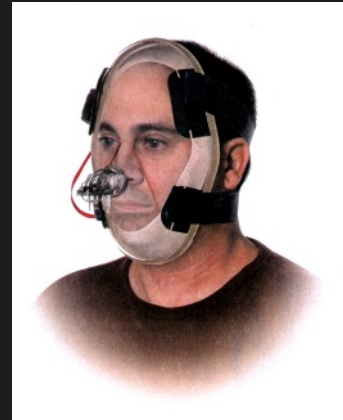
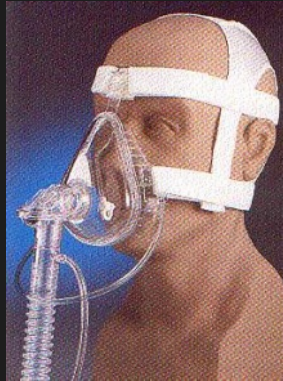
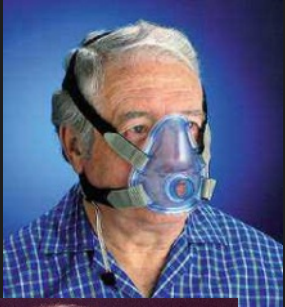
FRED PLUM, M.D.,† AND G. DONALD WHEDON, M.D.‡

NEW YORK





Evolution of the interfaces



MOBILISATION

Journal of
APPLIED
PHYSIOLOGY

VOLUME II

NOVEMBER 1949

NUMBER 5

*Effects of Bed Rest on Cardiovascular Function
and Work Performance¹*

HENRY LONGSTREET TAYLOR, AUSTIN HENSCHEL,
JOSEF BROŽEK AND ANCEL KEYS. *From the Laboratory of
Physiological Hygiene, University of Minnesota, Minneapolis, Minne-
sota*

Hier

CHEST, 68: 4, OCTOBER, 1975

This problem isn't new to us!

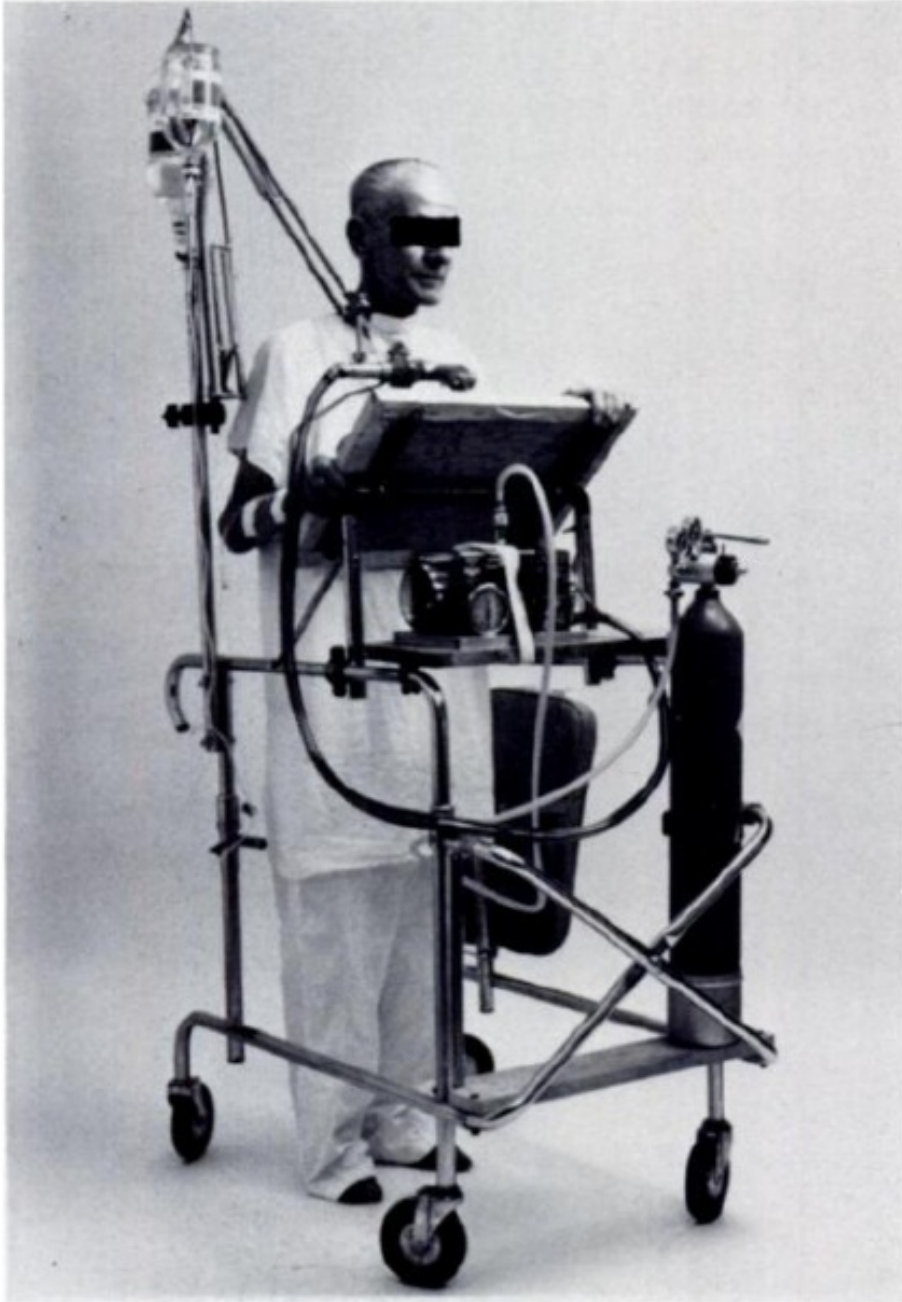


FIGURE 1. Device for early ambulation of patients requiring ventilatory assistance.



Hier

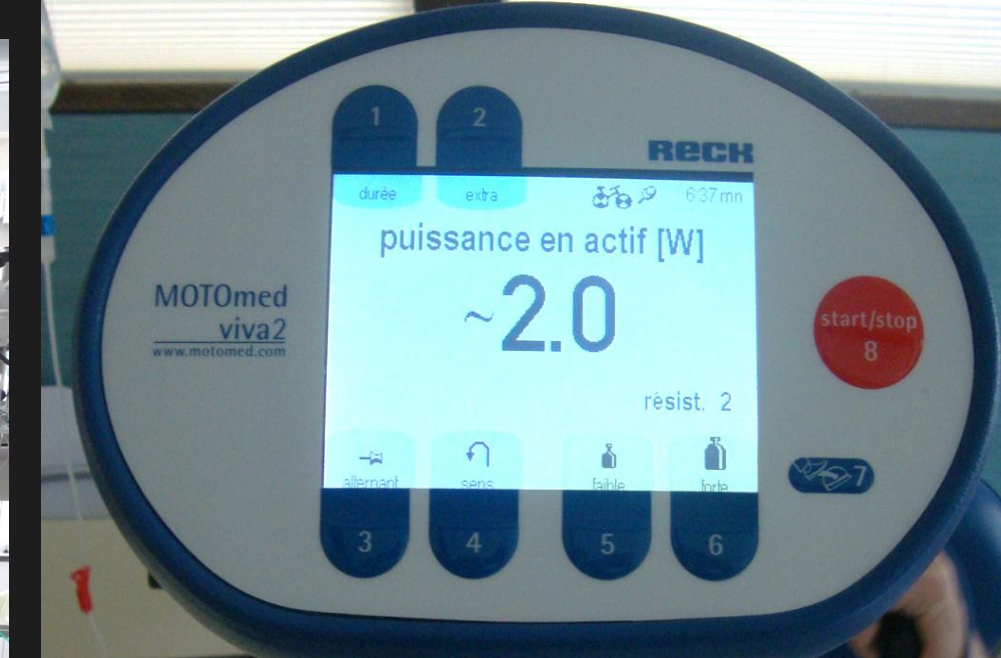


Aujourd'hui



www.teida.lt





Aujourd'hui

Mise au fauteuil précoce



Aujourd'hui

Table de verticalisation



Aujourd'hui



Aujourd'hui



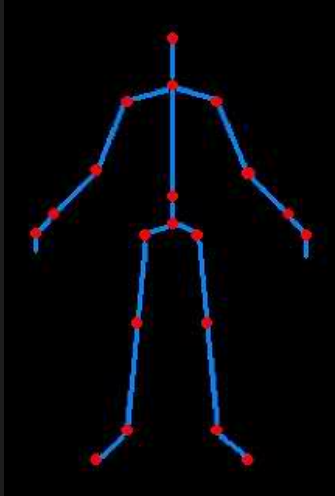


Aujourd'hui



« Nos techniques » de mobilisation



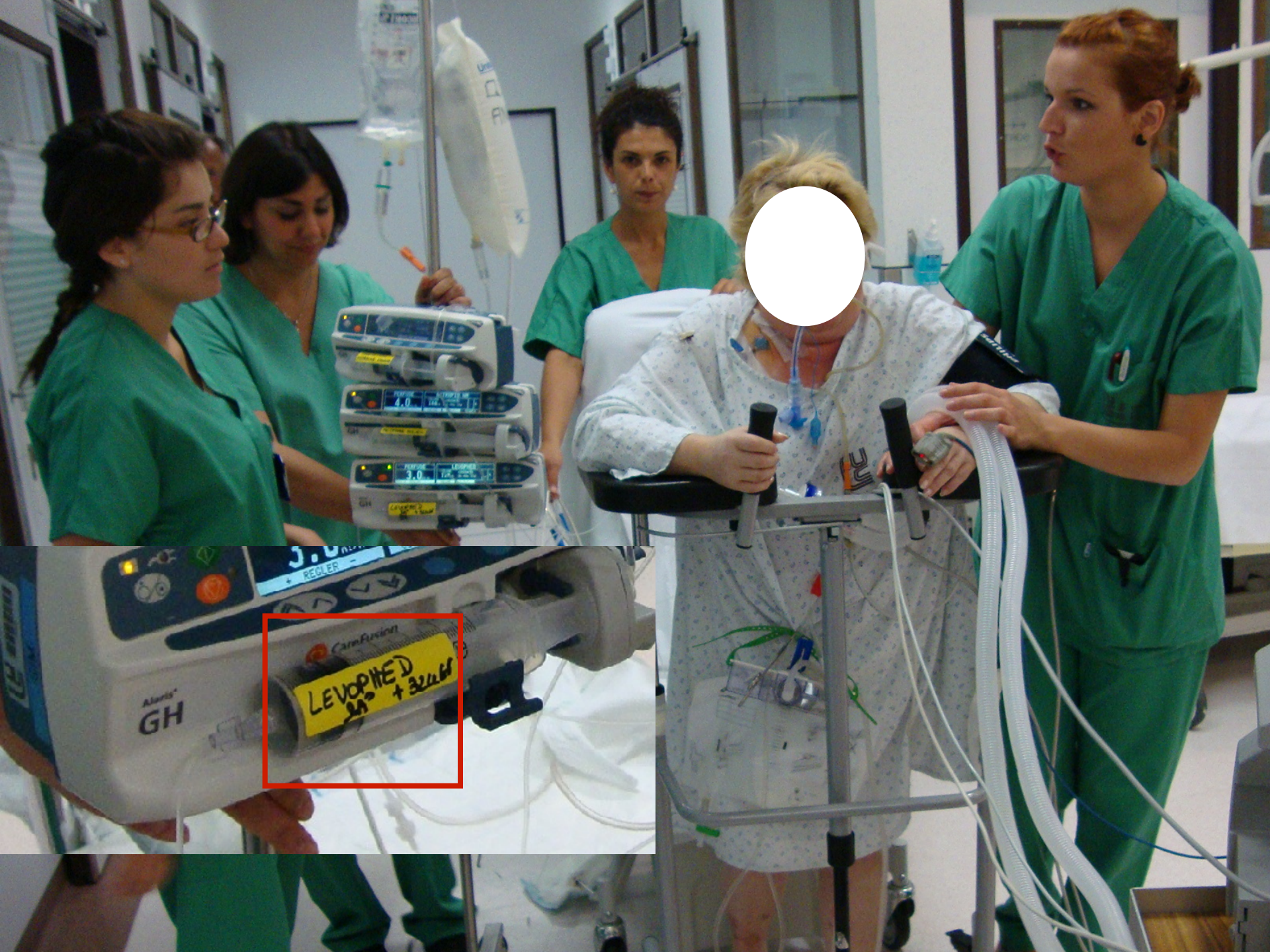


Kinect[©]



Condorcet Tournai Belgique (école de kinésithérapie et département d'ingénierie)

«Hard walking»



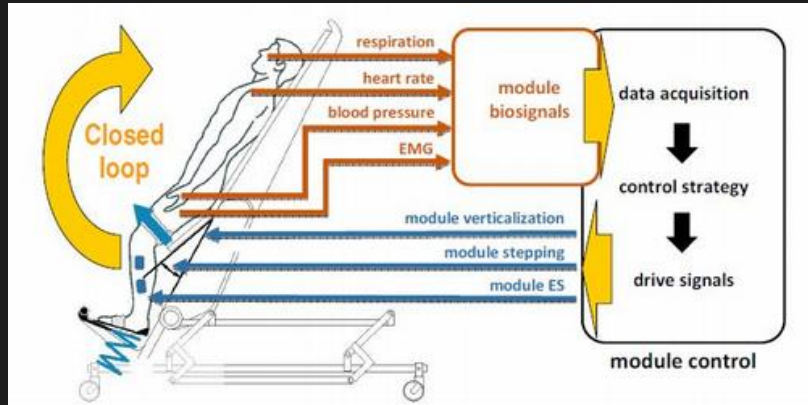
LEVOPHED
20 + 32464



ECMO Machines







The ventilated patient undergoing hydrotherapy: a case study.

Taylor S¹.





Feed back des mouvements réalisés/24 heures



**Merci pour votre
attention**



1988

2017