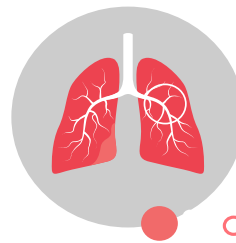


15^{es}
JOURNÉES
FRANGOPHONES
Alvéole



Faut-il encore drainer les patients ?

CONTRE

Yann COMBRET
Kinésithérapeute – PhD
Groupe Hospitalier du Havre
Université Paris-Saclay

Liens d'intérêts

GHAHR
Actukiné
Fullphysio
Air Liquide
ASTEN
SOS oxygène
ELIVIE

Déclaration des liens d'intérêts

J'ai actuellement, ou j'ai eu au cours des trois dernières années, une affiliation ou des intérêts financiers ou intérêts de tout ordre avec les sociétés commerciales suivantes en lien avec la santé.

Aucun lien d'intérêt en relation avec la présentation

Faut-il encore drainer les patients ?



« Il est proposé de (...) afin de favoriser l'élimination des sécrétions à court terme (G2B) »



« Aucune recommandation ne peut être effectuée (...) dans le but de mobiliser les sécrétions pulmonaires périphériques, **d'améliorer la dyspnée et la capacité à l'exercice** »

Il est recommandé de tenir compte de la préférence du patient pour favoriser l'adhérence thérapeutique des TDENI (G1A)



Recommandations SPLF, In Prep

Sélection par la clinique – *treatable traits*

Tous les jours

Plusieurs jours par semaine

Presque TLJ le mois dernier

How is your COPD?
Take the COPD Assessment Test™ (CAT)

Je ne tousse jamais 0 1 2 3 4 5 Je tousse tout le temps

Je n'ai pas du tout de glaires (mucus) dans les poumons 0 1 2 3 4 5 J'ai les poumons entièrement encombrés de glaires (mucus)

Alghamdi et al, Thorax, 2023



Volume d'expectorations $\geq 10\text{mL/j}$

Munoz et al, Eur Respir J, 2018

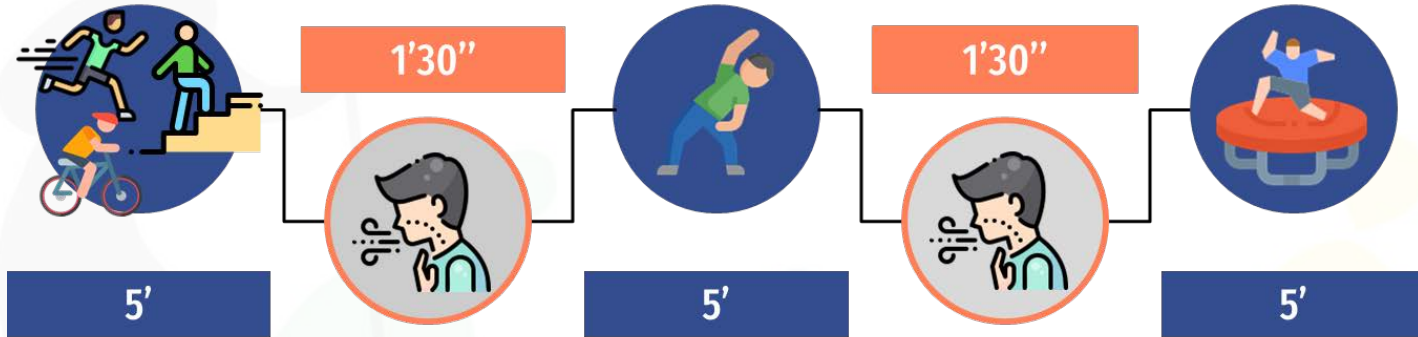
Exclusion ou pas de mention de RR

"All individuals with chronic lung disease (CLD) and symptoms of breathlessness should undergo PR; it is unequivocally beneficial" ERS Monograph, 2021



Can exercise replace chest physiotherapy for people with cystic fibrosis ?

“Among the 204 respondents (...) the mean reported time spent on treatment activities was **108 minutes per day**”



The top 10 research priorities in cystic fibrosis developed by a partnership between people with CF and healthcare providers

N=34
Age 12 (± 3)
VEMS > 90%

↑ Poids des sécrétions (3.7 vs 3.2g)
↑ Satisfaction (89 vs 72%)

Rowbotham et al, Thorax, 2018
Reix et al, J Physiother, 2012
Sawicki et al, J Cyst Fibros, 2009

L'exercice physique est une technique de drainage

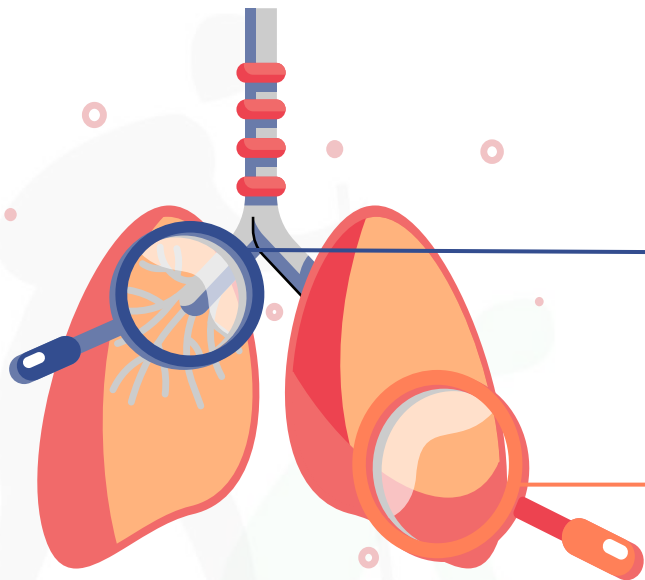
- Va **augmenter le DEP** mais ... n'atteint pas le **DEP/DIP > 1.1** (alors que le Flutter[®] si)
- Agit sur les **propriétés mécaniques du mucus** (e.g, impédance mécanique et hydratation) autant que le Flutter[®]
- Avec un **effet persistant** à 20min (non retrouvé avec le Flutter[®])
- Qui s'accompagne d'une **facilité d'expectoration** post-exercice

Dwyer et al, Chest, 2011

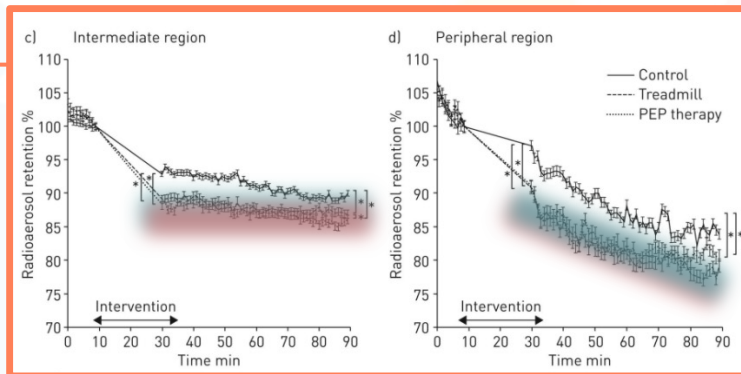
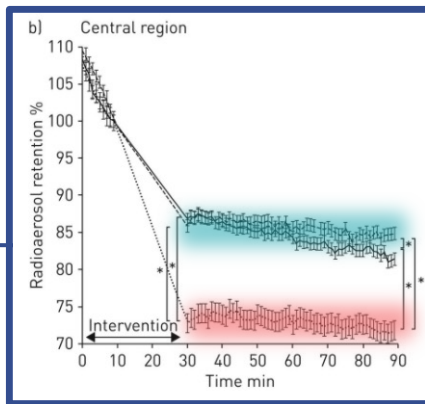
Dwyer et al, BMC Pulm Med, 2017

Radtke et al, BMC Pulm Med, 2018

Can exercise replace chest physiotherapy for people with cystic fibrosis ?



N=14
Age 18-38
VEMS 31-113



20 MINUTES



Masque PEP (10-20cmH₂O)
 15 respirations profondes +
 Huff / toux

60% VO₂ pic
 5.7 km/h, 5%

Dwyer et al, Eur Respir J, 2019



Applicabilité dans la vraie vie ?



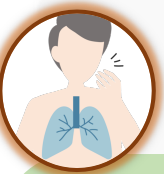
Airway clearance techniques and exercise in people with bronchiectasis: two different coins

Beatriz Herrero-Cortina ^{1,2,3}, Arietta Spinou ^{4,5}, Ana Oliveira ^{6,7,8,9}, Brenda O'Neill ¹⁰, Cristina Jácome ¹¹, Simone Dal Corso ^{12,13}, William Poncin ^{14,15,16}, Gerard Muñoz ^{17,18}, Deniz Inal-Ince ¹⁹, Victoria Alcaraz-Serrano ^{20,21}, Gregory Reychler ^{14,15,16}, Angela Bellofiore ^{22,23}, Annette Posthumus ²⁴, Patient representative ²⁵, James D. Chalmers ²⁶ and Annemarie L. Lee ^{27,28}



EUROPEAN RESPIRATORY *journal*

FLAGSHIP SCIENTIFIC JOURNAL OF ERS



Accessibility to trained physiotherapist
Economic (if devices are used) and time costs
Time and concentration required to achieve technique mastery
Need for regular review to optimise performance and adherence
Lack of motivation to perform it every day
Sputum expectoration associated with stigma



Ability to undertake adequately during exacerbation/advanced stages of disease ?
Ideal type and frequency of completion ?
Need for supervision for sufficient intensity and progression to maximise adherence

Modalités ?

Assessment breath(s), huff(s) +/- cough



Assessment breaths should be carried out before and at the end of an exercise session

Huff(s) +/- coughs are advised a number of times during your exercise session (minimum 3-4 cycles) and at the end of your exercise session to clear any loosened secretions

Frequency



At least once every day

Duration



> 20 minutes

Intensity



Must be intense enough to cause **deep breathing**

Types of exercise:



Puissance
67W - 55W

5.7 km/h, 5%
5.4 km/h, 3%



0	Nothing at all
1	Very light
2	Light
3	Moderate
4	Somewhat severe
5	Severe
6	More severe
7	Very severe
8	
9	Very, very severe
10	Maximal

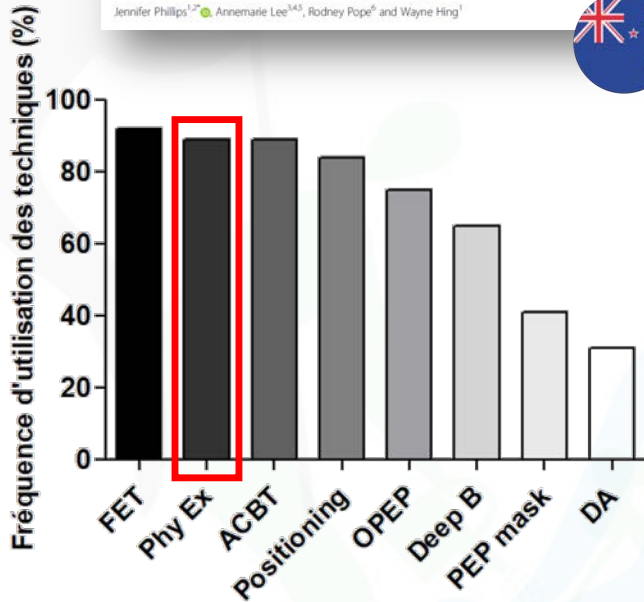
Living well with COPD ®

Mise en place sur le terrain

RESEARCH ARTICLE Open Access

Physiotherapists' use of airway clearance techniques during an acute exacerbation of bronchiectasis: a survey study

Jennifer Phillips^{1,2*}, Annemarie Lee^{3,4,5}, Rodney Pope^{6*} and Wayne Hing¹



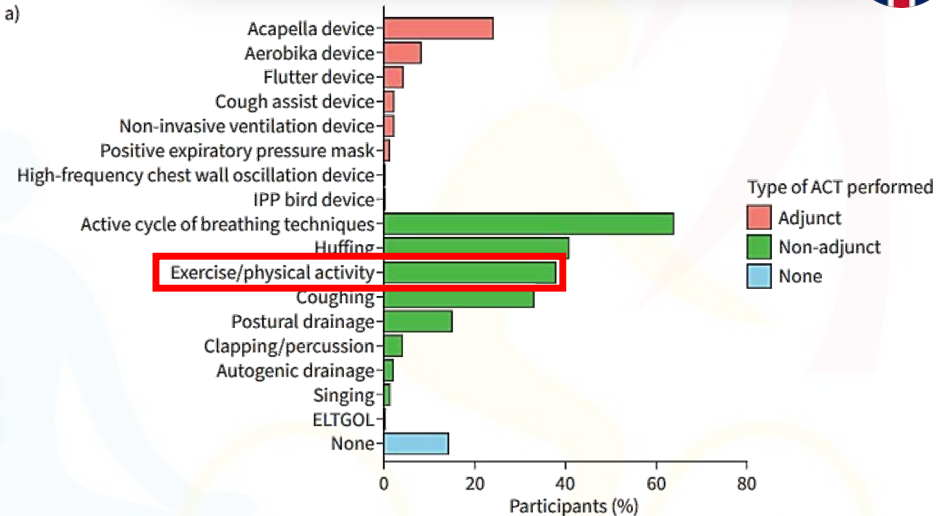
Phillips et al, Arch Physiother, 2021

Airway clearance treatments in bronchiectasis: feasibility of linking survey results to registry data and a survey of patients' and physiotherapists' practices

Rebecca H. McLeese^{1,6*}, Katherine O'Neill^{1,6}, Brenda O'Neill², James D. Chalmers³, Jeanette Boyd⁴, Anthony De Soya⁵, Ryan McChrystal¹, Megan L. Crichton³ and Judy M. Bradley¹



a)



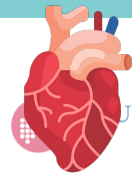
McLeese et al, ERJ Open Res, 2023

Bénéfices additionnels de l'exercice physique



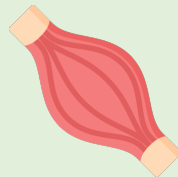
Airway clearance techniques and exercise in people with bronchiectasis: two different coins

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Annette Posthumus ²⁴, Patient representative ²⁵, James D. Chalmers ²⁶ and A...



EUROPEAN RESPIRATORY *journal*

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- ↑ Health-related quality of life
- ↓ Acute exacerbations
- ↓ Impact of chronic cough
- ↑ Sputum expectoration

- ↑ Health-related quality of life
- ↓ Acute exacerbations
- ↑ Exercise capacity
- ↓ Dyspnoea and fatigue



WHO, 2022

Take-Home Messages



“For now, exercise and ACTs are **two different coins** rather than two sides of the same one, and using both of them can make those with **bronchiectasis richer**”



Merci!



yann.combret@gmail.com