



Cystic Fibrosis

Context

Fabien is a 28 year old patient living in Brittany. He has a job and is married. He is a spirited, determined, and very demanding patient. He presents with cystic fibrosis, with an FEV1 of 40%. He has attended many rehabilitation sessions in various specialist centers. During a conference, he heard about CKRF of Marcq-en-Barœul and made a request to come do a two week program with a friend who also suffers from cystic fibrosis.

The program took place in June 2016. He was the first patient to use the Simeox, and to discover how it was used, along with the caregiving staff.



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Objective

The patient must learn about autogenic drainage. He would like to be able to perform it autonomously and be able to guide his physical therapists in the everyday drainage techniques.

He also needs to improve his physical performance, strengthen his musculature, and make his chest and spine more flexible.

The first autogenic drainage sessions will enable him to:

- Control his cough,
- Delay it,
- Master expiration with the glottis open,
- Produce a quality inspiratory flow that will make it possible to homogenize the distribution of air in his lungs.

Initial assessment

The patient is a disease carrier. He presents with severe lung hyperinflation and his distal flow rates have plummeted.

He very quickly understood the usefulness of a properly conducted aerosol therapy, and the importance of the air brought behind the mucus. Autogenic drainage enables him to gradually improve the speed of air flowing in the targeted areas, while fully relaxed, without ever needing to compress the bronchial tubes. Giving him the pleasure of breathing, and making his drainage sessions comfortable are the objectives of his therapeutic education. The goal of the program is to make him an expert in his disease.

Care provided

- 1. A regular antibiotic
- 2. Pulmozyme & hypertonic saline solution

Bronchial congestion clearance

Fabien was used to performing physical therapy by forced expiration. His bronchial tubes are reactive and he gets tired during the fits of an unproductive cough that exacerbate his shortness of breath.

Fabien quickly understood that the mucus must be able to be mobilized before it can be expectorated. Therefore he agreed, with a great deal of interest, to participate in the Simeox usage protocol, the purpose of which is to act on the thixotropy of the mucus. He performs an inspiration at the functional tidal volume, which enables him to generate a quality sigh, optimized by the Simeox.

Testimonial of Fabien, a Cystic Fibrosis patient

"The Simeox is an excellent device. I first discovered it last July. I was expecting to come back to learn it.

The best part about this device is that everything is done in relaxation, without forcing. That way, you manage to mobilize mucus that could not be mobilized in a normal drainage.

I hope this device will be able to be used at home in the future. I think that it will become the new device for assisting and carrying out an autogenic drainage."

Results

Starting with the first session, he was particularly surprised by the effects of the Simeox vibrational signal on the transport of his secretions.

The initial secretions, expectorated without effort, in line with autogenic drainage, have an extremely positive impact on the evaluation the patient will have of the new congestion clearance technique.

Fabien requested the use of the Simeox every day during his program. As the lung function tests show, the results are significant and demonstrate a real improvement.

His chest expansion went from 5.5 cm to 9.5 cm.

He did another program in December 2016. Today, Fabien is asking to be able to use the Simeox at home.

Conclusion

Fabien will have contributed, with the caregiving staff, to the understanding of a protocol that is personalized and adapted to each patient based on their perception of the machine.

There cannot be a question of one size fits all. The Simeox requires a learning period. Each patient must be able to use it based on their state of congestion, but also based on their bronchial reactivity.

The Simeox is an advantage, an instrumental aid of choice, for physical therapy that is gentle, without fatigue, and in total relaxation.

