

Press release

November 14, 2022

An innovative digital medical device for children with asthma

Ludocare, a French specialist in digital therapies for chronic pediatric diseases, launched a prospective multicenter clinical study in early September, in collaboration with French pediatric pulmonologists, to demonstrate the medical benefits and economic impact of the Joe connected companion robot in the care of children with asthma. The first patients have already been included in this study.


1-The Asthma JoeCare study evaluates the impact of the Joe connected companion robot on treatment compliance in children with asthma

The Asthma JoeCare study, coordinated by Dr. David Drummond, a university hospital practitioner in the pediatric pulmonology and allergology department at Necker Hospital in Paris, is being conducted in 14 centers (public and private institutions, private practices) representative of patient pathways. A total of 210 children will be included and followed for 12 months.

Its main objective is to compare the number of severe exacerbations between a group of children receiving standard maintenance treatment (SMT) combined with the Joe connected companion robot, and a second group of children receiving SMT alone. Ludocare hopes to scientifically demonstrate the benefits of Joe for children aged 4 to 11 with GINA grade 2, 3, or 4 asthma.

This study also aims to demonstrate the positive effect of Joe's educational support for patients in taking their treatment, particularly in terms of hospitalizations, parental absenteeism from school or work, and changes in maintenance treatment.

"Adherence to treatment and proper inhalation technique are key factors in asthma control. This solution, which provides help and support to young



children and parents in these two areas seems an interesting approach. But even if the concept seems relevant, it is important to have scientific proof. The multicenter study set up by Ludocare, involving both general practitioners and hospital doctors in clinical research, should help to demonstrate this," emphasizes Dr. Arlaud, a pulmonologist in Aix-en-Provence who carried out the first inclusion.

2/ More comprehensive care through better use of inhalation devices and improved compliance

In France, asthma is the leading chronic disease among children and adolescents (around 10%)². It is responsible for absenteeism, relationship difficulties, lack of self-confidence, and anxiety. Poorly controlled asthma is responsible for the deaths **of around 1,000 people each year in France, including one teenager every 3 to 4 weeks!**

According to the WHO, *"solving the problem of non-compliance with treatment would be more effective than any medical advance."* Misuse combined with poor treatment compliance in children leads to:

- a decline in quality of life, 5 out of 10 children with asthma miss school due to poor asthma control³ ;
- avoidable hospitalizations, 24% of exacerbations and 60% of hospitalizations related are due to poor compliance⁴ .

While the compliance rate in the pediatric population is less than 50%, Joe provides children with **personalized support** to complement their medication treatments. It promotes their autonomy in managing their treatments (schedules, administration techniques, etc.) thanks to reminders set by parents in the app connected to the robot. All the data collected is key to refining therapeutic choices and strategies.

"After almost three years of using Joe, our daughter Nolwenn is completely independent when it comes to taking her medication," explains Virginie, her mother. *"It's an incredible relief for all of us. It's become easy, a kind of little ritual. We hope that tomorrow all*

pediatric pulmonologists will be aware of this innovation that supports children and provides relief to families."

About



Founded in 2017, Ludocare is a Lyon-based start-up whose mission is to improve the quality of life of children with chronic and rare diseases. Its team is committed to putting technological innovation at the service of children, their families, and healthcare professionals. Ludocare has developed connected health companion robots that guide young children in taking their medication. Available in France since 2019, Joe was co-designed with caregivers and families and has been improved with each update.



Fabriqué
en France



Certification
Hébergement
Données Santé



Dispositif
Médical

MEDIA CONTACTS: adrien.pochon@ludocare.com - +33 (0)7 52 08 92 14

Vanessa Ralli – LINK - +33 (0)6 61 18 06 52

References

1. <https://www.ameli.fr/assure/sante/themes/asthme-enfant-plus-3-ans/comprendre#:~:text=L'asthme%20de%20l'enfant%20en%20chiffres,septembre%20et%20touche%20les%20enfants.>
2. Blanc F.X, *et al.* AIRE study: analysis of data collected from 753 children with asthma in Europe. *Rev MalRespir.* 2002 Oct;19(5 Pt 1):585-92.
3. Koumpagioti D, *et al.* Effectiveness of an educational program for children and their families on asthma control treatment adherence. *J Asthma.* 2020;57(5):567-573.