



# Cystic Fibrosis Research News

#### Title:

TEMPORAL TRENDS IN HEALTHCARE RESOURCE USE AND ASSOCIATED COSTS OF PATIENTS WITH CYSTIC FIBROSIS

## Lay Title:

Trends in the use of healthcare resources over time and the associated costs for people with cystic fibrosis?

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### What was your research question?

How have the changing of CF population's characteristics and changes in CF management influenced healthcare consumption and cost?

### Why is this important?

There is a need for an updated medico-economic evaluation of CF care to analyze the combined impact of evolving standards of care and modified demographics on medical resource consumption and costs following the introduction of cystic fibrosis transmembrane conductance regulator (CFTR) modulators. The future use of highly effective CFTR modulators





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in about 80% of people with CF raises the question of the sustainability of funding for the health systems.

## What did you do?

This study reports on the changes in healthcare resource use (HCRU) and associated costs over the last 10 years. We linked the medical records of people with CF from 2006 to 2017 in the French CF Registry to their corresponding claims data named SNDS (Système National des Données de Santé, the French National Health Data System). This system lists all the reimbursed outpatient and inpatient medical resources used by 98.8% of the French population covered by the national health system. Such exhaustive real-life data, combined with the clinical data from the French CF Registry, provide a reliable assessment of the burden of CF care.

## What did you find?

6187 of the 7671 patients included in the French CF Registry (80.7%) were linked to the SNDS (51.9% males, average age 24.7 years). The average cost per person was €14,174 in 2006, €21,920 in 2011 and €44,585 in 2017. Costs linked to hospital stays increased from €3,843 in 2006 to €6,741 in 2017. In 2017, the average cost of care per person with CF was as follows: 72% for medications (of which 51% was for modulators) and 15% for hospital stays. This big increase in medication cost between 2006 and 2017 is mostly due to the introduction of CFTR modulators.

### What does this mean and reasons for caution?

It is increasingly common to link public health data to epidemiology. It is a useful way of evaluating both changes in practice and the resulting increase in cost following innovative therapies and international recommendations for standards of care. Indeed, our study provides updated figures on the cost of care in a great majority of the CF patients in France. The most important limitation of our study is the lack of data for children younger than 7 years of age because one of the measurements used was spirometry, which is difficult for children under six years to perform.

#### What's next?

Beyond this initial general assessment, these linked sets of data will allow us to analyse different profiles of disease severity and in the future evaluate the impact of using other newer modulators on the overall consumption of healthcare.





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