



# Cystic Fibrosis Research News

## **Title:**

The virtual CF clinic – what this means for sputum microbiology

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## **What was your research question?**

The emergence of COVID-19 disease has meant that people with CF (PWCF) do not physically travel to clinic as often in order to protect them from acquiring this new viral infection, when travelling to clinic and whilst at clinic. Physical interaction between the PWCF and their CF healthcare team is being increasingly substituted with virtual interactions, using phones, smartphones and computer digital technology, such as Zoom, or MS Teams. One disadvantage of this new system is that sputum collection at clinic is no longer possible, so we wanted to know if there are any PWCF-friendly alternatives of getting regular sputa to the microbiology labs for analysis.

## **Why is this important?**

Collecting regular sputum samples from PWCFs is really important to detect any changes in what microbes are present in the lungs, so that appropriate antibiotic treatment is started as early as possible, as well as knowing what bacteria are present for cross infection purposes. There are many national and international guidelines which state how often PWCF sputum should be checked. Moving to virtual clinics should not compromise the rigour of these well-made guidelines to maintain safety.

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## **What did you do?**

We examined all available guidelines as to how often sputum should be checked for harmful microbes. We also researched how PWCFs could send their sputum from their home to their CF microbiology lab, so that the frequency of sputum testing was not compromised, nor the quality of sputum for microbiology testing.

## **What did you find?**

We found that posting fresh sputum to the lab is a relatively inexpensive, straightforward and efficient way of getting sputum from PWCFs to the lab, without the need to come to CF clinic. However, we noted that the posting of sputum creates lots of health and safety issues for the postal service, to avoid leakage of sputum from containers whilst in transit to the lab. We describe the various rules and regulations that need to be followed to ensure safe transportation, as well as highlighting an example of “best practice” which is already available.

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

The virtual CF clinic is increasingly becoming more common and many PWCFs have already experienced this new way of interacting with their CF team. PWCFs need to be involved in the development and establishment of local services and engage with such innovative practice, when requested to send sputa for micro analysis.

## **What's next?**

For sputum testing, we encourage CF centres to adopt versatile and innovative approaches to sputum collection in the community and safe transportation via postal services. This will allow for continued microbiological vigilance and support PWCF safety.

## **Original manuscript citation in PubMed**

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