

# Cystic Fibrosis Research News

**Title:**

Risk Factors for Persistent Methicillin-resistant *Staphylococcus aureus* Infection in Cystic Fibrosis

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**What was your research question?**

Are there specific factors that place individuals with cystic fibrosis (CF) at higher risk of developing chronic Methicillin Resistant *Staphylococcus aureus* (MRSA) infection?

**Why is this important?**

Although significant progress has been made in the management of CF, it remains the case that chronic infection is a major contributor to this disease. MRSA has been recognized as a serious infection in CF. Over the last few decades, more and more individuals with CF have been infected with MRSA, and in those people with chronic MRSA infection there are serious consequences. Previous research demonstrated that chronic MRSA infection leads to a faster decline in lung function and decreased survival. Knowing this, we wanted to look for any factors that might increase the risk of developing this serious infection.

**What did you do?**

The Cystic Fibrosis Patient Registry is a large database that includes information on most of the CF patients in the United States. We followed patients in this registry over 10 years, and looked to see when they developed chronic MRSA infection. We were able to identify specific characteristics that appeared to put people at higher risk of developing this infection.



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## **What did you find?**

Certain characteristics, such as pancreatic insufficiency and CF related diabetes appear to put patients at high risk of infection. Additionally, if patients were hospitalized more frequently or if they were cared for at a CF center that had high rates of MRSA infection, they were at higher risk of developing chronic MRSA infection.

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

The results of this study suggest that infection control practices in the hospital and in the CF clinic are important and warrant ongoing attention. Additionally, this study helps to identify which patients might be at higher risk of developing chronic MRSA infection, and can help clinicians focus efforts on treating patients with new MRSA infections, with the goal of preventing the development of a chronic infection.

## **What's next?**

The CF community continues to focus on the important issue of infection control, both in CF clinics and in the hospital. There are also ongoing studies that are looking at how we can best treat MRSA infection, and we look forward to these results.

## **Original manuscript citation in PubMed**

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