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What is bacterial colonisation of cystic fibrosis children toothbrushes?

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Objectives: *Pseudomonas aeruginosa* or *Staphylococcus aureus* toothbrushes contamination in cystic fibrosis (CF) patients is unknown. The objective of this pilot study was to determine prevalence of those germs on toothbrushes of CF and healthy children, and define if toothbrushes may be involved in pulmonary infection.

Methods: Toothbrushes and sputum bacteriological analysis from children between 8 and 18 year old was conducted: 27 CF patients, 15 healthy siblings and 15 healthy children out of patient family.

Results: *Staphylococcus aureus* has been identified on 23% toothbrushes from patients, and 13% of healthy children, without any methicillin-resistant specimen. *P. aeruginosa* was detected on 15% of patients toothbrushes, and 0% to 13% of healthy children. There was no statistical link between pulmonary colonisation and toothbrush contamination.

Conclusion: CF patient toothbrushes can be colonised by *S. aureus* or *P. aeruginosa*. Impact on pulmonary colonisation is still unknown. Toothbrush decontamination methods need to take into account these bacteria in CF patients.