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## The challenge of detecting infections in frail elderly individuals

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It is well known that non-specific signs and symptoms and lack of specific ones are common in frail elderly individuals, especially nursing home residents (NHR), contributing to a delayed diagnosis and treatment and a risk of overuse of antibiotics and hence development of antibiotic resistant. Atypical signs and symptoms are observed as weakness, falling, weight loss, physical dysfunction and cognitive decline. As specific symptoms are often lacking, the presence of an increased body temperature in fever, in terms of  $\geq$  38 °C, is often evaluated as a significant symptom of illness and an important reason for taking further action in clinical practice. However, temperature in fever in frail elderly has been reported to be lower than traditionally stated. The complexity of detecting infections in this population can partly be explained by difficulties in understanding and interpreting non-specific signs and symptoms and co-existing chronic diseases that blur the clinical picture. In addition, as more than 50% of NHR are assessed as having chronic pain, the effects on body temperature from medication with paracetamol daily has to be considered. Furthermore, reference values for common biomarkers in blood/serum are based on samples from healthy, young individuals and do not consider the presence of chronic diseases, daily medication and ageing. The aim of this presentation is to raise and discuss the challenge of detecting infections early on in frail elderly.

## Biography

Marta Sund Levander has completed her PhD in Clinical Physiology at Linkoping University, Sweden in 2004. She is a Senior Researcher and University Lecturer at Linkoping University. She has published papers and textbooks about assessment and validation of body temperature in health and disease with focus on frail elderly. She is responsible for Swedish guidelines about body temperature measurement in healthcare and a Swedish Representant in ISO standards for thermometry.

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