Website address:
https://www.gesundheitsindustrie-bw.de/en/article/press-release/radar-warns-risk-falling-hospital

Radar warns of a risk of falling at the hospital

Falls are among the most common risks in everyday clinical practice, often with far-reaching consequences. This makes it all the more important to provide rapid assistance—ideally before a fall occurs. To ensure this is consistently possible even for patients in their rooms, the Medical Center – University of Freiburg has now introduced a digital mobility monitoring system in several wards: What looks like a smoke detector is actually a sensor equipped with radar technology. The system analyzes the movement patterns of people in the room and can alert nursing staff before a fall occurs.

"With the help of this monitoring system, we can keep an eye on patients' movement patterns and, in the future, other vital signs as well. An alarm alerts nursing staff as soon as the system detects a potential fall," says project manager **Sven Ziegler**. "Nurses determine individually which movements should trigger a notification. For patients at increased risk of falling, simply sitting up in bed can trigger an alert. For people with dementia, a notification can be sent when they leave the room. This allows the system to be adapted to each patient's specific support needs."

Anonymous motion detection without cameras or microphones

The mobility monitoring system uses radar technology and records only anonymous movement points in the room, which are analyzed using artificial intelligence. No cameras or microphones are used, thereby protecting patients' privacy. Each movement point contains information about posture, position, and in the future even bodily functions such as heart rate, tremors, or breathing. Based on this, nursing staff receive real-time information about whether patients are sitting up in bed, getting out of bed, or leaving the room. The alerts are displayed via an app on staff smartphones as well as on computers at the nursing station.

"The medicine and nursing care of the future will increasingly be shaped by smart technologies," says Prof. Dr. **Frederik Wenz**, Chief Medical Officer of the Medical Center – University of Freiburg. "It is crucial that we use these developments responsibly to further improve the quality of care, enhance patient safety, and provide meaningful support to staff in their daily clinical work."

Press release

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Source: University Hospital Freiburg

Further information

- Universitätsklinikum Freiburg