

MODERN TECHNOLOGIES AND DEVICES FOR REMOTE HEALTH MONITORING IN ELDERLY HEALTHCARE



Jelena Jakab, Nikola Volarić, Luka Malenica,
Ljiljana Trtica Majnarić, Aleksandar Včev

Faculty of Dental Medicine and Health, Josip Juraj Strossmayer University of Osijek
Faculty of Medicine, Josip Juraj Strossmayer University of Osijek

Background

- Increased life expectancy along with the decreasing birthrate globally will result in a large aging population in the near future.
- Older age is often accompanied by numerous chronic diseases causing high mortality strong impact on quality of life, and a significant socio-economic burden.
- Enabling affordable new strategies and technologies for providing better health care is urgently needed.
- Continuous monitoring of the physiological parameters and activities could prevent emergency situations in elderly and prolonged hospital stay.

Remote health monitoring options

- real-time monitoring
- collecting and analyzing of physiological data
- non-invasive low-cost sensors in communication with remote healthcare facilities
- quantitative assessment of cognitive and physical health, daily activities, gait patterns, and vital signs

Diabetes monitoring

- key health information are necessary for tighter diabetes control and more effective therapeutic strategy
- boost in the development of glucose sensors with effective continuous sensing technology
- broad spectrum of artificial intelligence approaches for prevention, detection and treatment of diabetes



Conclusion

The primary purpose of remote health monitoring is to allow people to live uninterrupted and active lives with continuous surveillance of their physical well-being. The improvements in data storage and processing allow a low-cost solution for screening, early diagnosis and predictive algorithms development.