



Smart mattress topper for care homes and hospitals

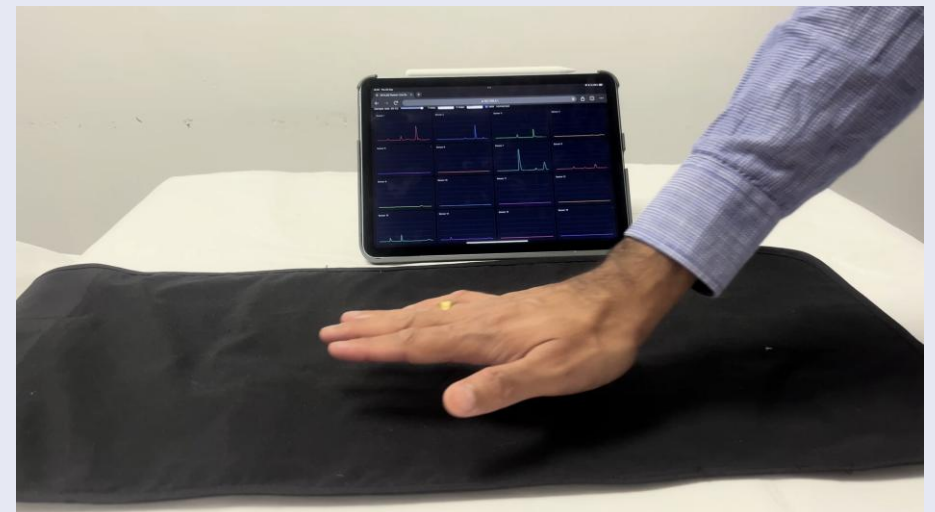
What is it?

- Early detection of infections in care homes and hospitals helps **prevent spread**.
- **PulseWeave™** is a sensorised mattress topper that **detects the 3 most common care home infections types**: urinary tract infections (UTIs), respiratory tract infections (RTIs); and skin and soft tissue infections (SSTIs).



How does it work?

- Patented textile sensors in the topper measure **pressure, respiratory rate/events, sweating, temperature, and movement**.
- Proprietary AI continuously monitors for **signs of infection**.
- The topper also helps maintain tissue viability and prevent falls by alerting to ulceration risk and mobilisation.



Let's collaborate!

We wish
to meet:

Care home staff
For PulseWeave™ trials.

Researchers
For further development and evaluation.



Technology readiness

Stage 1
Bed occupancy & respiration

Stage 2
Complete in-bed sensing

Stage 3
Infection monitoring



Validation methodology: Test for agreement with polysomnography, 7 clinical sessions with 21 subjects

Validation outcome: $r \geq 0.85$ for respiration rate and event detection



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