DEMS

YOUR LIFE, OUR PRIORITY

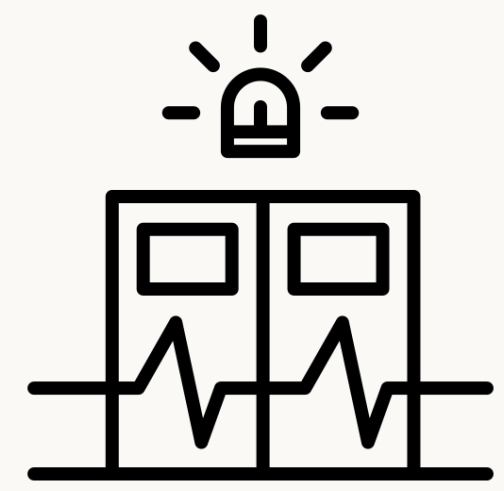# Dynamic Emergency Monitoring System

Find us here

TÉCNICO LISBOA

1. PROBLEM

Manual triage systems are outdated and static.

Critical patients can deteriorate unnoticed.

Healthcare staff are overwhelmed and resources misallocated.

2. SOLUTION

Real-time patient monitoring with wearables for faster, smarter emergency care.

| Registration & Triage | Patient with wearable | Server/Data processing | Data Access (Dashboard) | Medical Decision |

3. HOW IT WORKS

1. Patients receive smart bracelet
2. Vitals data (Heart Rate, SpO2, Temperature)
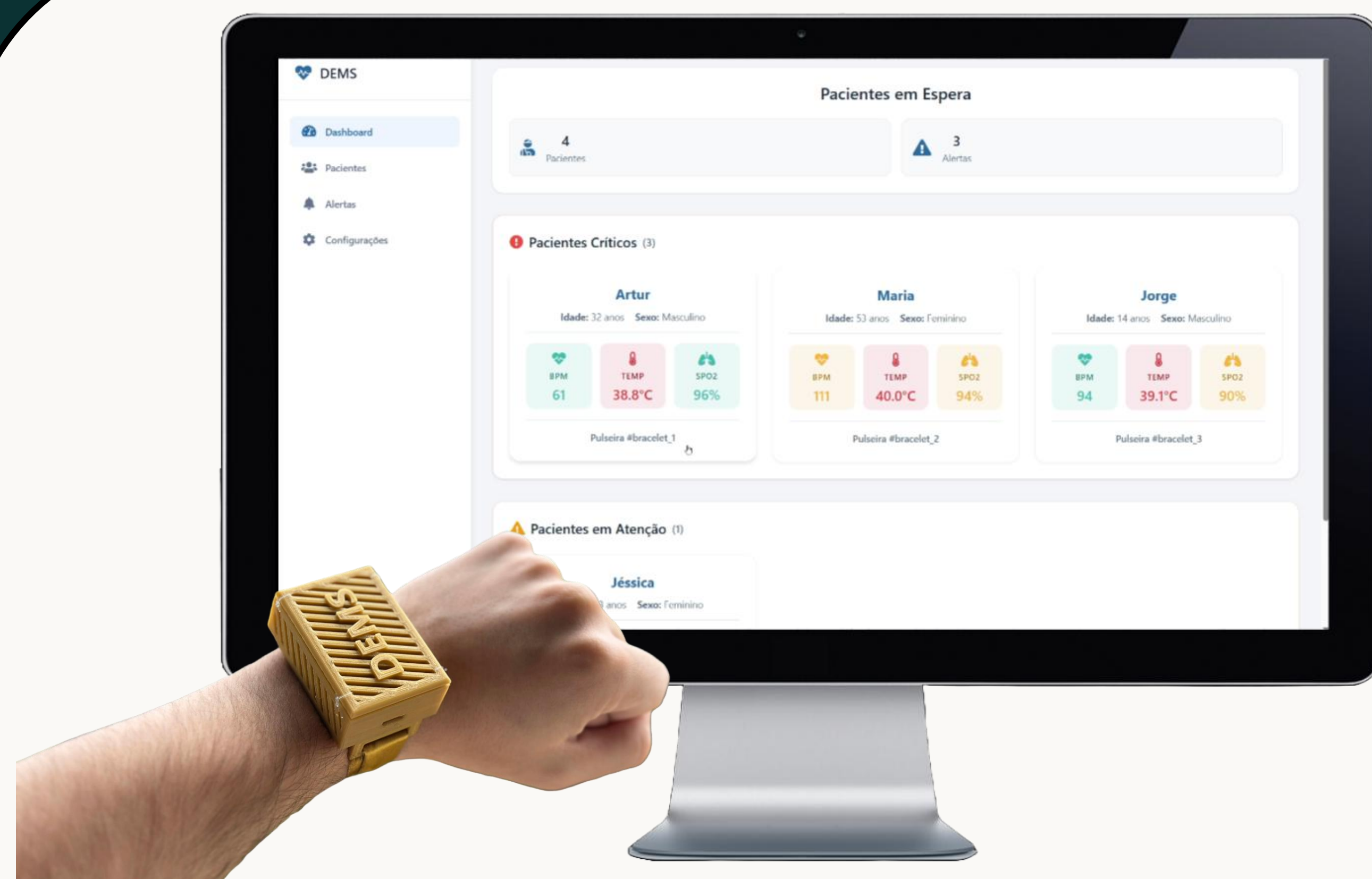3. Information is sent via Wi-FI to the server
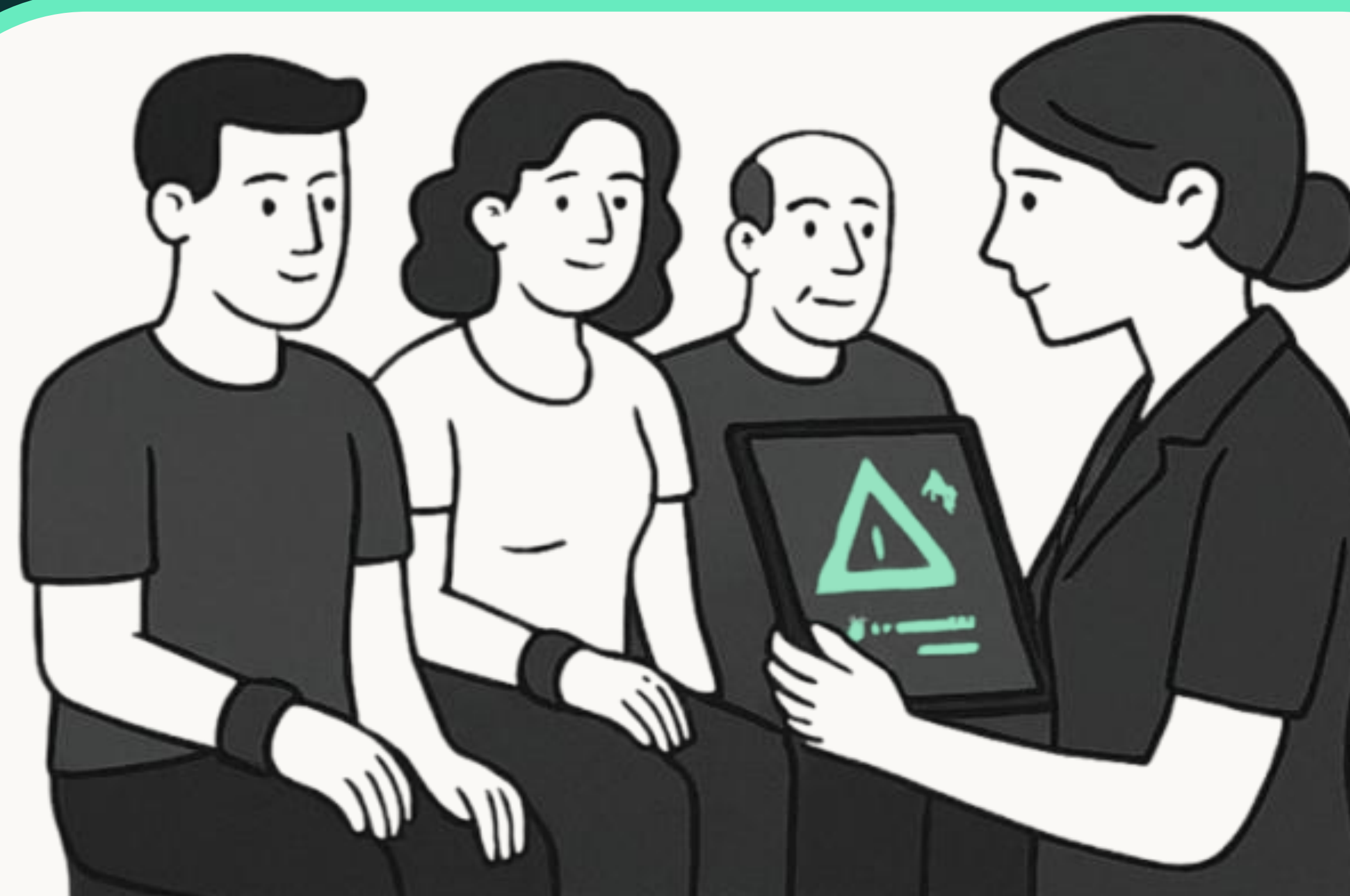4. Clinical dashboard displays real-time alerts
5. Doctors make immediate decisions

7. RESULTS

The prototype was successfully tested, proving its functionality and effectiveness in real-world conditions.

Because your life is more than a moment — it's everything.

4. TECHNOLOGY

- Microcontroller (ESP32-C3)
- Temperature Sensor (MLX90614)
- Oximeter (MAX30102)
- Accelerometer (MMA8452Q)
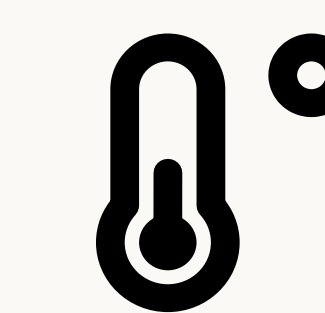- Wi-Fi
- Database Management (Laptop)

6. BENEFITS

✓ Immediate Response to Critical Alerts

✓ Continuous Monitoring of Vital Signs

✓ Patients Fall Detection

5. FEATURES

- Hearth Rate
- Falls detector
- SPO2
- Temperature

Partner: HOSPITAL DE SANTA MARIA