



SOTER ANALYTICS COLLABORATE WITH ST JOHN OF GOD SUBIACO HOSPITAL (SJGSH) TO HELP PREVENT EMPLOYEE SPINE AND SHOULDER INJURIES USING AI AND WEARABLE DEVICES

NOVEMBER 2019 | PERTH, WESTERN AUSTRALIA

The SoterCoach: a wearable technology solution capturing spine and shoulder hazardous movements and risk multipliers. Consisting of the smallest and lightest safety device on the market with industry-leading battery life, it is accompanied by a mobile app for the worker and an online dashboard for management. Real-time feedback, autonomous learning and self-tracking elicits the increase in awareness required for self-adjustment. The solution provides a shift in manual handling behavioural change by transferring the responsibility to the individuals.

CLIENT



St John of God Subiaco Hospital is a worldclass private hospital in Perth, Western Australia offering the highest quality medical and surgical care in a warm and welcoming environment.

Many of Perth's leading specialist physicians and surgeons' practice at the 578-bed hospital, allowing inpatients, outpatients and day patients to access a comprehensive range of services including maternity, medical, surgical, rehabilitation and allied health. The Health and Safety of the employees at St John of God Subiaco Hospital has always been of utmost importance. Their commitment to find new, innovative and engaging solutions to support and keep their caregivers safe is an ongoing duty of care they take seriously.

CHALLENGE

The St John of God Subiaco Hospital team have been monitoring and assisting their staff by means of continual classroom training and ongoing task risk assessments. The challenge to have staff off the job for training has always posed as a concern and therefore they jumped at the opportunity to engage in a program that was able to be completed in-situ with instantaneous user feedback and bite size micro-learnings to help with engagement and behavioral change.

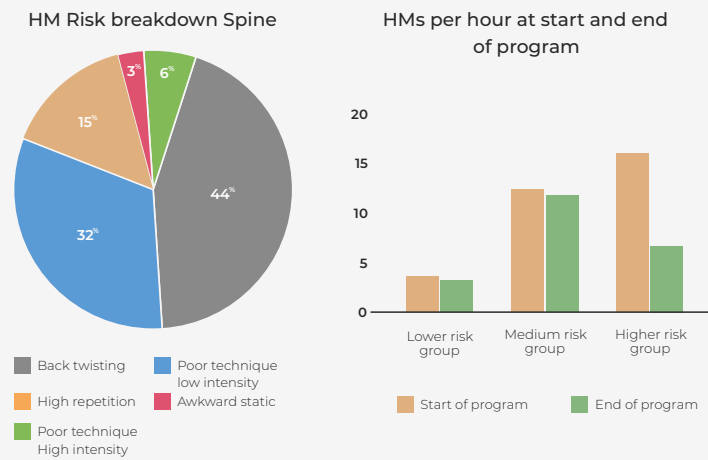
Manual Task Consultant at SJGSH, Shane O'Brien says, "Many roles at our hospital require manual handling. Moving a patient or bed incorrectly or lifting a heavy object the wrong way can lead to ongoing issues and finding new ways to keep our workers safe and motivated to move safely is something we take pride in doing."

RESULTS

WORKER: Vibro-tactile feedback, coupled with in-app personalised data tracking and 3 minute in-situ microlearning tutorials, created a **heightened awareness** of activity resulting in personalised encouragement to adjust and decrease the number of hazardous movements being made.

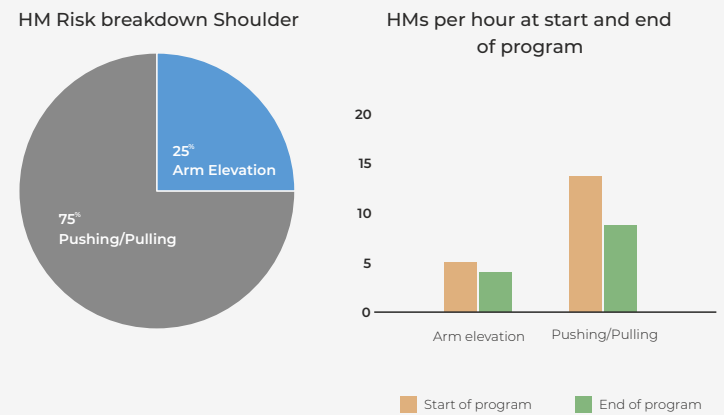
MANAGEMENT: All data was made available to management via a web-based dashboard

Spine: Risk Breakdown & HM Improvement



Key:
 HMs: Hazardous Movements
 Poor technique low/high intensity = Forward bending with high or low risk
 Lower risk group = < 10 HMs per hour
 Medium risk group = 10-15 HMs per hour
 Higher risk group = >15 HMs per hour

Shoulder: Risk Breakdown & HM Improvement



Key:
 HMs: Hazardous Movements
 Arm elevation: static, repetitive, frequency, overexertion
 Pushing/Pulling: arm elevation, jerky movements, pulling with open shoulder

"The SoterSpine has been successful in supporting Caregivers in a variety of roles, including nursing, engineering, cleaning and maintenance. It has even been useful in ensuring the safety of injured staff returning to work," said Shane O'Brien, Manual Task Consultant, St John of God Subiaco Hospital

SOLUTION OUTCOME/BENEFITS

SJGSH / SoterCoach contributions:

- Improvement for all risk groups of employees
- Risk breakdown differences to help with hazard identification
- Increased movement awareness of the employees
- Improved safety culture and emphasis on worker wellness
- Employee empowerment and autonomy
- Proactive insight into work done in the workplace
- Safe, non-invasive secure clip on device

FUTURE

St John of God Subiaco Hospital will now look at a plan to run the SoterCoach program through their organization with a potential to have customised tutorials content.

Potential direct cost savings:

- Reduce hazardous movements → reduced risk of injury
- Reduce the cost of manual handling training and down time, training done in-situ with direct feedback
- Reduce the requirement of observation/supervision of employees
- Profile of hazardous tasks (task risk assessment)