



Gloucestershire Safety and Quality Improvement Academy 2026

# Musculoskeletal Injury Reduction

Sam Brown & Angi Galliers

General Outpatients Department, Gloucestershire Royal Hospital



Gloucestershire Hospitals  
NHS Foundation Trust

## Safety Concern

Nurses and HCAs in the outpatient department **move heavy boxes of patient records** from multiple storage locations into clinic rooms, often several times a day, leading to a musculoskeletal injury and ongoing risk to health, safety, welfare and service efficiency.

Improvements are required to reduce injury risk, minimise fatigue, and provide a safer, more ergonomic working environment.

## The Aim

**Reduce** the number of times staff move patient notes boxes per day **by 30%**, through the implementation of an optimized storage solution and workflow re-design, ensuring improved efficiency, reduced risk of musculoskeletal injury and minimising staff disruption, **by July 2025**.

**So staff can concentrate on the handling tasks that really matter!**



## Driver Diagram Summary



### Environment

Central storage location  
Tall shelving for inspection of notes  
Designated preparation area



### Staff

Ability / Physicality  
Education of safe handling and self-awareness



### Task

Task rotation to avoid RSI and fatigue  
High volume – utilisation of digital technologies  
Weight analysis per task so they do not exceed



### Measures



#### Outcome Measure

The time taken to move notes boxes / prep



#### Process Measures

Number of times same box is moved  
Number of times box overloaded and decanted  
Distance travelled (depending on pathway)



#### Balancing Measures

Staff experience from other departments if they lose space (staff experience story)



## PDCA cycle

### PLAN

- Assess current state with baseline frequency of box movements per day per staff member
- Map current note retrieval process and storage layout
- Identify high-traffic clinics or peak demand times

### DO

- Attempted to identify and pilot a centralised storage location within the department
- Ensured the environment is safe
- Collect data daily on the number of box movements and staff feedback using BORG

### CHECK

- Compare post-pilot data with baseline to measure reduction in box movements.
- Assess staff feedback on efficiency, safety, and disruption.
- Monitor musculoskeletal incident reports and levels of fatigue or complaints.
- Monitor barriers: Limited space, stakeholder engagement

### ACT

- Re-engage stakeholders to address internal politics or space constraints.
- Re-test revised processes before full implementation.



Environment  
Central Storage Location

## Measurements & Key Results



Barriers from internal politics of space allocation stunted what was predicted to be the most effective control measure.

Average number of boxes moved per member of staff per day

17

Over 11 weeks and 22 members of staff



Original aim was to **reduce by 30%** which would put down to **12**.



## Next Steps

Re-evaluated the data of staff sickness and incident reports - **no additional incidents / absence had occurred**.

Staff reported that early intervention around safe handling techniques and task rotation had assisted but mainly that they **felt valued and that their concerns were taken seriously**.



Continue to monitor data



Oversee the rollout of the digital 'paper-light' solution within EPR



Collaborate with other departments to support physical wellbeing

#TheGSQIAWay