

Gloucestershire Safety and Quality Improvement Academy 2026

Musculoskeletal Injury Reduction

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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 redesign, 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



Environment
Central Storage Location

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.

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