The SURPLUS Project

Impact of the introduction of a repurposing guidance in reducing research-related waste.

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- In 2020, the NHS launched the Greener NHS campaign to reach a "net zero" NHS by 20401. A key areas of this campaign is a reduction in the amount of waste produced delivering clinical activities1 Waste produced within the research field is often influenced by use of study-specific stocks, study labels and Sponsor's policies.
- As part of the Green plan for NIHR Oxford Cognitive Health Clinical Research Facility, we therefore implemented a guidance/policy for the repurposing of all to-be-disposed items in January 2023.
- The aim of the SurPLus project is to quantify the effectiveness of our guidance in reducing the number of supplies wasted during the delivery of research trials.

Methodology

- A before-after study comparing the monthly figures of disposed supplies in the 6 months before and after implementation of the guidance.
- At the end of each month, study-specific and general stock items to-be-disposed have been counted.
- Quantitative and qualitative information about the study and the items (e.g. expiry date, repurposing method and commercial or non-commercial study) have been collected in *a priori* prepared spreadsheet.

Results

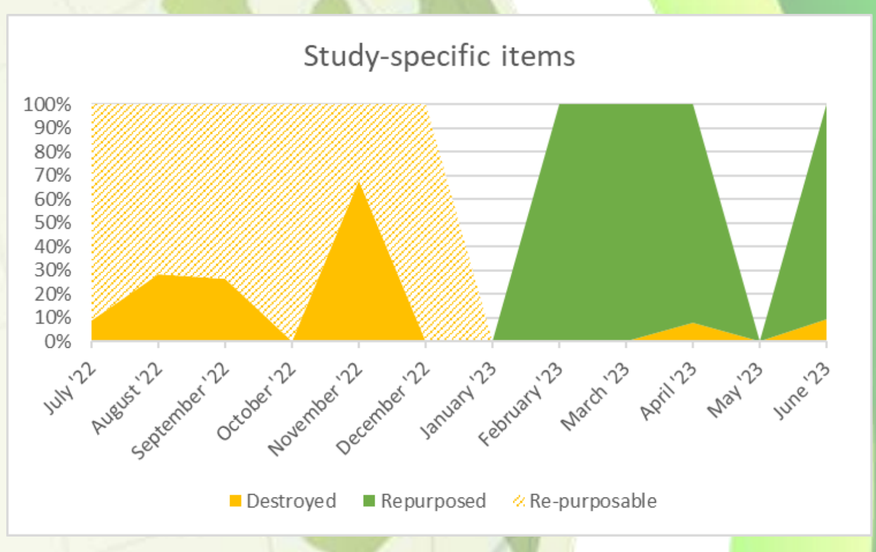
- Study-specific items

BEFORE

- **11192** items to be disposed.
  - **68.75%** items for sample collection.
  - **42.82%** items not expired.
- **100%** destroyed (Potentially repurposable items ranged from **32.21%** to **100%).**

AFTER

- **1016** items to be disposed.
  - **74.98%** items for sample collection.
  - **45.95%** items not expired.
- **93.7%** items repurposed.



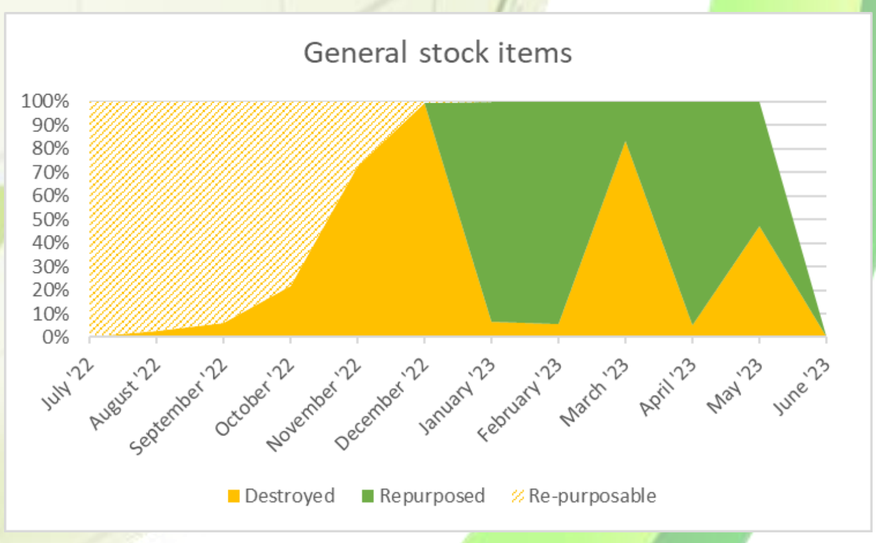
- General stock items

BEFORE

- **7328** items to be disposed.
  - **70.59%** items classified as 'other.
  - **70.61%** items not expired.
- **100%** destroyed (Potentially repurposable items ranged from **0%** to **97.09%** per month).

AFTER

- **3846** items to be disposed.
  - **61.36%** items for sample collection.
  - **0.52%** items not expired.
- **35.62%** items repurposed.



Conclusion

- The implementation of the guidance led to a notable reduction of waste in both study-specific and stock items, with almost all study-specific stock items repurposed rather than disposed of.
- The re-purposing ability was less noticeable for general stock items due to the nature of the items. However, the percentage of non-expired items to be disposed was reduced by 70.09%.

What Next?

- More sustainable materials should be used in the manufacturing of single-use products for clinical research.
- A crucial stage of study set-up should be negotiation of management and disposal of study-specific stocks.

REFERENCES:
[1]NHS, Oct 2020 (updated July 2022). Delivering a "Net Zero" National Health Service. Available at Greener NHS » Delivering a 'Net Zero' National Health Service (england.nhs.uk) (accessed 25 May 2023)

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