

Let's Not Waste

Walking Aids Recycling / Reuse Resource

July 2024

The Business Case / Executive Summary

Many medical devices (e.g. walking aids) are durable products whose useful life greatly exceeds use by a single patient, and can be refurbished and reused repeatedly, reducing waste to landfill and avoiding carbon associated with new products. However, the implementation of reuse schemes has been constrained by apprehensions related to liabilities, insufficient resources for scheme establishment, and a perceived lack of cost-effectiveness.

The reuse of mobility aids is a simple scheme to implement with significant financial and environmental benefits. The scheme aligns with the Welsh goal for a net zero public sector by 2030¹.

Revenue and savings



Hospitals can save in the region of £46,000 a year by receiving returned walking aids to be cleaned and refurbished for use by future patients.

Liability and risk



Walking aids reuse schemes are low risk for infection control and defects. The National Health Service Existing Liabilities Scheme for General Practice (Wales) Regulations 2020² to Third Parties Scheme provides indemnity.

Ease of implementation



Schemes can be conducted in-house taking five to 10 minutes to check/clean/repair each item or third-party managed collections, via drop-off bins or amnesty campaigns, **or outsourced to a third-party.**

Reusing a refurbished walking aid is on average 98% lower in carbon emissions than using a new walking aid. If just two out of every five walking aids were returned, the average hospital could save up to £46k per year³.

Case study example

In 2018, Cardiff and Vale University Health Board (**CAVUHB**) collaborated with **HM Prison and Probation Service** on a four-year project until 2022. Together, **they successfully refurbished 4,160 aluminium walking frames and 5,050 crutches**, with additional safety assessments by CAVUHB staff. **The refurbished equipment's total value exceeded £90,000.** Notably, a six-month period from February 2023 saw the health board saving £30,000, thanks to a 50% return of walking aids.

¹ [Towards zero waste: our waste strategy | GOV.WALES](#)

² [The National Health Service \(Existing Liabilities Scheme for General Practice\) \(Wales\)](#)

[Regulations 2020 \(legislation.gov.uk\)](#)

³[NHS England » Walking aid reuse](#)

How to set up a walking aid reuse scheme

Walking aid reuse schemes incorporate a process for items to be returned, cleaned, and assessed prior to being redistributed to a new patient.



Crutches



Walking sticks



Walking frames

Additional Guidance

Case studies, legal guidance, example delivery models and standardised project methodology examples are provided in the 'Additional Guidance' section to assist implementation.

If you need more support, please contact:

Consult and investigate

Consult stakeholders. Some reuse may already occur. Existing practice provides a baseline and facilitates initial discussions with key stakeholders.

Define returns approach

Establish a simple returns approach and locations (hospital, council recycling centres or third sector) via drop-off bins or amnesty campaigns.

Allocate resources

Use in-house staff to manage, inspect, clean, and repair; OR use a third-party arrangement to manage collection points and refurbishment offsite. On-site: provide storage, refurbishment space, collection bins & identify suitable staff.

Develop procedures and training

Develop Standard Operating Procedures (SOP) for checking, cleaning and repairing items in-house or for provision to a third-party. Train all staff involved in the management and movement of items.

Communicate to end users

Provide simple, clear notice of return locations to end users by using equipment labels with return details e.g. physiotherapy, minor injuries, third-party location.

What delivery models exist?

There are several possible delivery models to evaluate as part of your planning process; an individual health board/trust may deliver a programme locally, an Integrated Care System (ICS) may deliver regionally or you may outsource to a third party.

	Individual health boards	Regional coordination	Third-party outsourcing
Benefits	<p><i>Programme ownership at individual organisation level with supporting guidance from the centre</i></p> <ul style="list-style-type: none">• Understanding of local/regional dependencies and requirements• Items continue to circulate locally• Scheme monitoring and outcomes are easier to track	<p><i>Regional coordination through ICS community. Options on contracting approach</i></p> <ul style="list-style-type: none">• Understanding of local/regional dependencies and requirements• More products circulating in region• Consistent approach for patients and increased drop-off locations• Early adopters encourage wider take-up	<p><i>Outsourced to a third party with ownership and governance at a central level</i></p> <ul style="list-style-type: none">• Leverage existing experience within the private sector• Logistics and workforce provided• Established performance reporting system
Drawbacks	<ul style="list-style-type: none">• Lack of health board engagement could slow down the programme• Multiple programmes across a region may duplicate effort	<ul style="list-style-type: none">• More stakeholder engagement required initially• Reduced control and oversight of progress• Potential need for additional logistics set up across the region	<ul style="list-style-type: none">• Reduced control and oversight of progress• Reduced savings

Key Stakeholders

A walking aid reuse scheme will establish a solution to return, clean, and assess items prior to being redistributed to another patient.



**Clinicians, Physiotherapists,
Occupational Therapists, A&E**

Teams whose budgets are affected.

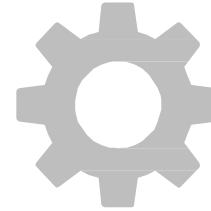
Staff that issue patients with equipment and need to support approaches to equipment tracking and assurance of appropriate procedures for quality control.



**Sustainability & Procurement
Managers**

A walking aid reuse scheme can support broader sustainability programme ambitions.

Third-party collection contracts are available through private companies such as Medequip, alternatively, arrangements could be pursued through a third-sector organisation such as a community interest group, charity or volunteers.



**Peripheral Stores, Waste
Teams**

Staff involved in stock management, ordering, storage, and transfer (and reuse activity for in-house schemes). Joint development of procedures and training.



End User Contact Points

- Reception – contact points for general patient queries.
- Physiotherapy departments.
- Ambulance – abandoned patient equipment.
- Community Nurses during patient visits.
- Care Homes – long-term users.
- Third-party contact point.

Reuse Case Study Programme - CAVUHB

Cardiff and Vale University Health Board achieved a 50% return rate in 2019 through its Walking Aids Reuse programme, which involved a combination of low volume return to physiotherapy departments for inspection, cleaning and repairing equipment on site, and high volume returns to the Probation Service, saving around £30,000.

Organisation	Cardiff and Value University Health Board
Issue	CAVUHB has over 2,200 beds and over 15,000 employees treat a variety of injuries and conditions. In In 2021, the Walking Aids Service team was able to recycle over 1,500 walking frames and 2,000 pairs of crutches that would have otherwise ended up in landfill sites. This equated to around £30,000 worth of equipment but only accounted for 50% of walking aids issued, mainly issued through the physiotherapy and orthopaedics departments, who established and coordinated the reuse scheme.
Action	An equipment return area was established in the physiotherapy department, where staff then transfer items to a designated room for cleaning and assessment. For low volume returns, a member of physiotherapy tech staff pairs, inspects the aid for functionality and faults and cleans them following the agreed SOP. Any walking aids that fail the checks are treated as waste and allocated for metal recycling. The refurbishment process is quick and easy, taking one person between five to 10 minutes per walking aid.
Impact	<ul style="list-style-type: none"> • Over a six-month period in CAVUHB, the following items were returned, assessed, and cleaned for reuse. 963 walking frames; 815 elbow crutches; 28 gutter frames; 22 hemi frames; 109 walking sticks; 8 quad sticks; 13 three wheeled walkers; 23 paediatric crutches, and 3 four wheeled walkers. • Percentage return in a six-month period from February 2023 was 50%. • Reusing 1,984 pieces of equipment and saving around £30,000.
Lessons learned	<ul style="list-style-type: none"> • The reuse scheme benefits from a clear owner and coordinator. • A dedicated space may be needed to inspect and recondition equipment along with staff supporting this work. • Set and agreed procedures to follow simplifies the task and ensures appropriate checks are completed. • Communicating a simple returns approach to patients is important for success (the team used labels/QR codes on equipment to encourage patients to return items).



Third-Party Outsourcing Example - ABUHB

Third-party equipment providers can collect and prepare items for reuse, health boards/trusts may use them to man reuse schemes, providing waste, carbon, and financial reduction/savings.

Organisation	Medequip Medequip - Integrated Community Equipment Services (medequip-uk.com)
Issue	Like many health boards in Wales and the UK thousands of walking aids were being issued in Aneurin Bevan University Health Board (ABUHB) and being disposed of despite retaining excellent functionality.
Action	Medequip was used by ABUHB to recycle walking aids for reuse. Each item has a unique barcode to track it across the system, help manage stock in line with anticipated requirements and to provide the customer with returns data. Collection points for equipment were physiotherapy, minor injuries unit and out-patients. Each item of equipment was labelled with a return to sticker on it. Used equipment was assessed by Medequip and prepared for reuse, or recycled with salvage of spares where the whole item cannot be reused.
Impact	From 2021 to 2023, 12,303 walking aids were recycled and just 578 walking aids were suitably disposed of through Medequip 'Repair, Maintenance and Recycling Scheme', producing environmental and financial benefits (as an example, a pair of elbow crutches retail at £34).
Lessons learned	The general public need to be made aware of the importance of returning these items. It needs to be easy to arrange a collection and equipment return locations need to be easily accessible.



Delivery Models | Walking Aid Amnesties

A walking aid amnesty is a useful starting point in establishing reuse and can be used to test capability and processes, particularly for an in-house reuse programme in health boards/trust.

What is a Walking Aid Amnesty?

A one-off or periodic campaign to encourage patients to return items after use. An amnesty allows any patient, their relatives or friends to return items that are no longer used. They can then be inspected and refurbished as needed and made available for re-issue to patients.

Cardiff and Vale University Health Board's amnesty campaign resulted in over 4,300 items returned, representing a saving of c. £28,000.

Where to start

- ❑ **Identify potential partners:** Understand whether there are any local suppliers, equipment providers, local authority, community or third sector groups with whom you might wish to partner to support collection and storage of mobility aids, e.g. Joint Equipment Services, HM Prison and Probation Service, Medequip.
- ❑ **Set up logistics/infrastructure:** If the collection points are in-house, provide cage/bins for collecting items and decide where to locate them. For example, set up an amnesty cage outside the hospital's main reception area.
- ❑ **Standard operating procedure (SOP) for cleaning and assessment or when using a third-party:** Set up a SOP for infection control prevention.

Walking Aid Amnesty

In 2023, Cardiff and Vale University Health Board launched the Walking Aid Amnesty and Recycle/Reissue Scheme with the **goal of achieving a 100% return of issued walking aids by 2025.**

The plan involves a Cardiff wide amnesty, staff training on safety checks and refurbishment, collaboration with HM Probation Service, and extensive communication efforts.

The project aims to have a positive environmental impact, achieve significant cost savings, promote sustainable practices, provide training opportunities, offer meaningful work for probation service clients, and contribute to the NHS's net zero goals.

Outcomes: from March 2022 - March 2023, the scheme successfully refurbished and reissued 1,132 walking frames, 988 pairs of elbow crutches, and 69 walking sticks, saving costs amounting to £17,998, £9,880, and £205.62, respectively. The initiative is striving to increase these figures by 20-30% in the coming year.

Delivery Models | In-House Model

An in-house model can be more cost effective, using quick and simple refurbishment processes that follow a Standard Operating Procedure agreed locally with clinicians and therapists.

What does an in-house approach involve?

An in-house approach uses internal staff and facilities to complete all aspects of the refurbishment process, from inspection, cleaning and completing minor repairs, to tracking, monitoring, collection, storage and movement of items.

Where to start

- ❑ **Identify programme owner:** Nominated coordinator, e.g. Physiotherapy Technician.
- ❑ **Set up refurbishment room:** Establish a dedicated area with sufficient space for inspecting, cleaning and repairing items, and storage space to separate dirty returned items and clean items ready for reissue.
- ❑ **SOP for cleaning and assessment:** Set up a standard operating procedure (SOP) that includes infection prevention control, documented approval for products to be used and an escalation process.
- ❑ **Order supporting equipment:** Storage cages or bins for collection, replacement parts, labels to mark equipment as 'on loan' and identify returns location or contact, any other communication materials, and disinfecting cleaning products.
- ❑ **Measuring progress:** Agree a standard set of KPIs and establish monitoring processes for measuring progress.
- ❑ **Staff Training:** Train staff in infection control.

Lessons Learned

- Establish a clear owner / coordinator for the programme
- Allocate a room for the reconditioning to be carried out and a member of staff to support this (it is not a resource intensive activity)
- Set and agree processes (SOP) to follow
- Communicate with users (i.e. add stickers to encourage the return of devices)
- Equipment tracking needs to be quick and simple to encourage participation by time pressurised teams
- Focus on ease of implementation by staff and improving returns over tracking individual items
- Performance data can be provided by third party providers

Delivery Models | Third-Party Enabled Solution

An outsourced model reduces administrative requirements for the health board/trust and provides wider access to patients looking to return items. Schemes that do not return items for re-issue may not deliver savings.

A third-party-enabled solution provides the experience of rolling out a reuse programme. The solution might include:

- **Outsource model to a third-party:** Engage with a third party who provides a managed service for community equipment, e.g. Medequip.
- **Use of Voluntary Community Social Enterprise (VCSE), providing a level of social value:** Explore whether any local VCSE organisations provide take-back or reuse services, for example, British Red Cross.
- **Collaboration across the region with third-party (private sector or VCSE):** Blended model harnessing the benefits of regional/ICS delivery and third-party enabled delivery.

Where to start

- ❑ **Identify potential partners:** Understand existing contracts and relationships in your local area, as well as potential other third parties who might be suitable to partner with.
- ❑ **SOP for cleaning and assessment:** Work with the third party to set up a SOP for your programme that follows local IPC and decontamination policy. They might already have standard procedures from similar schemes.
- ❑ **Measuring progress:** Agree a standard set of KPIs and process for measuring progress. See the monitoring and reporting examples.

Loan Schemes

Voluntary, community and social enterprise organisations provide take back schemes.

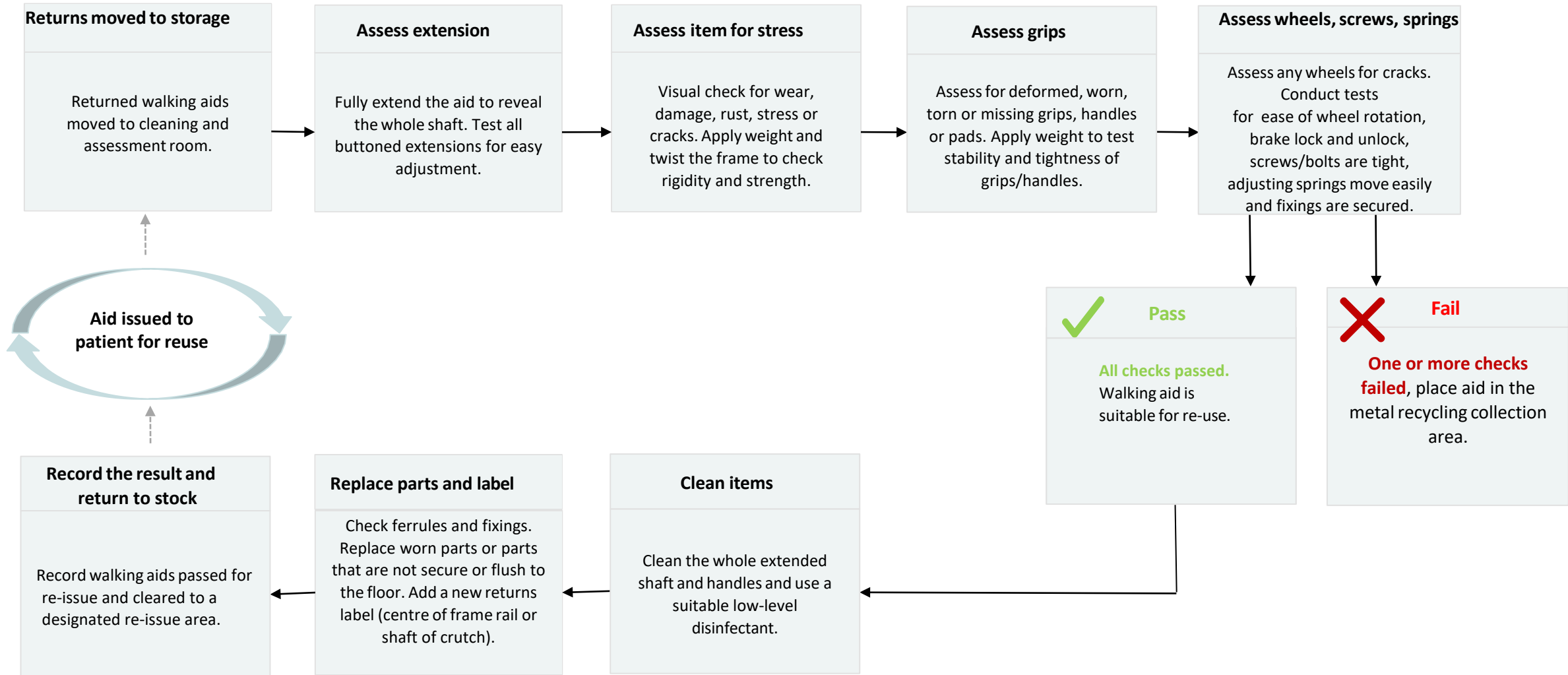
For example, Medequip Assistive Technology is the provider of the Gwent Wide Integrated Community Equipment Service (GWICES) on behalf of Blaenau Gwent County Borough Council, Caerphilly County Borough Council, Monmouthshire County Council, Newport City Council, Torfaen County Borough Council and the NHS Wales Aneurin Bevan University Health Board.

Returning Equipment

Medequip can arrange a free collection, to recycle and help others in need. Contact: 01633 987409 or email cefndy-medequip@medequip-uk.com. You can also return equipment to your local Medequip depot.

Examples | Training Requirements

Below is a basic example of a cleaning and checking procedure based on case studies and supplier guidance on 'not for single use' aids.



Examples | Training requirements

Create standard operating procedure (SOP) for assessing items and the decontamination process and training materials that address the technical skills and knowledge requirements.

Training Requirements

- Infection prevention control learning - mandatory for all staff

Infection prevention control

Walking aids are low risk – commonly coming into contact with intact healthy skin and are non-clinical in nature.

A reusable cloth (where validated laundry process is available), or wipes for cleaning to remove organic matter and the use of a low-level disinfectant suitable for the equipment according to local trust infection prevention control and decontamination policy is considered a suitable decontamination method. Refer to the National Standards of Healthcare Wales and your local infection prevention control lead for further guidance.

Category	Indication	Examples	Level of Decontamination	Method
Low Risk	Items used on intact skin	Walking sticks, elbow crutches, walking frames	Low	Clean the whole extended shaft and handles and use a suitable low-level disinfectant.

Examples | Monitoring and reporting

Collecting and periodically analysing data from the programme is vital in order to understand success and areas for improvement.

A log sheet and accompanying spreadsheet should be used to measure and track the volume of walking aids returned and reused as well as the accompanying financial benefits. The data should be monitored and evaluated periodically in order to identify opportunities for further improvement. The log sheet should include information on items returned, refurbished, and disposed of, as well as monitor any replacement parts and their stock levels. For example:

Date	Crutches returned (pairs)	Crutches refurbished (pairs)	Crutches disposed of (pairs)	[Other items] returned (pairs)	[Other items] refurbished (pairs)	[Other items] disposed of (pairs)	Number of ferrules used (single)
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This log sheet can then be used to monitor the percentage of items refurbished, the volume of waste avoided, and carbon savings. Other example success measures include:

- Total saved on walking aids (per category)
- % return rate of walking aids
- Refurbishment time
- Patient satisfaction with refurbished walking aid

Measuring carbon and waste impact

Collecting the right data will enable you to calculate your impact on cost, waste and carbon.

Example metrics:

- **Total savings from refurbished items:** Cost savings from not needing to repurchase items.
- **Carbon savings from refurbished items:** kgCO₂e diverted by not needing to repurchase items.
- **% refurbished instead of disposed of:** Ratio of returned items refurbished versus disposed of (due to wear and tear).
- **Waste collections saved:** Average waste collections per tonne multiplied by total weight refurbished.
- **Waste savings per ton:** Cost per tonne multiplied by volume avoided.

Reasons to adopt a walking aid reuse scheme

- The scheme aligns with the Welsh Goal for a net zero public sector by 2030.
- Hospitals can save in the region of £46,000 a year through recycling and reuse of walking aids.
- Walking aids are durable products whose useful life greatly exceeds use by a single patient.
- Walking aids can be refurbished and reused repeatedly.
- All walking aids available to purchase via the NHS Supply Chain catalogue are reusable.
- Recycling walking aids reduces waste to landfill.
- Reusing a refurbished walking aid is on average 98% lower in carbon emissions than using a new walking aid.
- Walking aid reuse schemes are low risk for infection control and defects.
- Schemes can be conducted in-house taking five to 10 minutes per aid or outsourced to a third-party.
- Anyone can be trained to check and prepare a walking aid for reuse.
- Third-party involvement could include providing training and jobs to people who have struggled to return to or secure work.
- Third-party options include the use of private companies such as Medequip, arrangements with charities such as the Red Cross, local authorities, community interest groups, public services such as probation service.
- [NHS England has a dedicated webpage](#) to support health trusts implement walking aid reuse schemes- Wales should be replicating this!

Concerns addressed: adopting a walking aid reuse scheme

Limited space in hospitals

- Returned walking aids will replenish / increase walking aid stock which already has allocated storage space in hospitals.

Hospitals are too busy to manage walking aid reuse schemes

- Cardiff and Vale University Health Board has demonstrated and evidenced suitability for operating an in-house walking aid reuse scheme.
- Aneurin Bevan University Health Board has demonstrated and evidenced suitability of using a third-party organisation to manage collection and refurbishment of walking aids for reuse, reducing pressure on in-house staff to service the walking aids.
- Amnesty and collection points can be off-site and managed by a third-party.
- Health boards with established schemes can provide resources to help other health boards easily adopt and adapt (if necessary) the scheme.

The scheme if operated in-house will require funding of a role

- The training and procedure for cleaning, checking and recycling aids is very simple and quick and can be completed by **any** member of staff identified as suitable for this role e.g., physiotherapy technician.
- **Additional funding is not required to implement a walking aid reuse scheme. The scheme will release revenue through cost avoidance of replacing once-used aids.**