

THE PATIENT ENVIRONMENT ACTION TEAM (PEAT) SUPPORT CLINICAL AREAS TO BE MORE SUSTAINABLE

TEAM MEMBERS: Jemma Robinson - Facilities Operational Manager, Carl Hyatt - PEAT Technician, Matthew Robinson - PEAT Technician, Claire Flanagan - Facilities Operational Manager, Project Support - Matthew Quinton - Waste Compliance and Sustainability Manager

Project Aims:

1. Successfully implement active dry mix recycling (DMR) and Battery Recycling through staff engagement and behaviour change, reducing Trust carbon emissions.
2. Engage and increase staff awareness on sustainable actions, via a bespoke 'Sustainability' leaflet
3. Identify ways the PEAT team can show continuous commitment to sustainability across the Trust in support of the Trust Green Plan and net zero ambition.



Background: The Patient Environment Action Team (PEAT) undertake a range of tasks including complex cleaning, minor routine maintenance works and repair of defected equipment. Visiting over 60 clinical areas annually, we felt we could play an active role in sustainable practice via meaningful engagement with clinical teams.

Strategic choice of project: Recycling is highlighted as a key area of focus in the Trusts Green Plan¹ and is one of the most common requests the sustainability team are asked about. Not only is domestic and clinical waste more costly to the Trust than recycling, but incorrect disposal of hazardous waste such as batteries, could result in additional cost in the form of fines issued to the trust due to non-compliance of appropriate waste disposal. Batteries are a hazardous waste and have potentially toxic metals which can leak into landfills and pollute drinking water if managed inappropriately.

Approach:

- An audit established that only 4/56 areas were actively using dry mix recycling (DMR). 0/56 areas had access to battery bins. For most areas, batteries were being placed in a Sharp Smart Waste container.
- We engaged with clinical staff during our audit, and pleasingly, found they were appreciative of the PEAT work and reported access to DMR and battery recycling would be valuable to them.
- We also engaged Matthew Quinton, Waste Compliance and Sustainability Manager, who confirmed that the incorrect disposal methods currently used were costly to the Trust. Access to appropriate battery recycling had also recently been identified as an action for the Trust following an external Waste management audit.

Changes implemented:

- Suitable areas for trial of DMR bins and Battery recycling were identified as those already on the PEAT schedule, as this would ensure sustainability of the project long-term.
- DMR bins were placed in non-patient facing, clinical staff break rooms for trial.
- Unused containers already available to the trust were labelled and repurposed to promote recycling.
- For the duration of the project, to minimise cross-contamination risks, full battery bins were collected by the PEAT team following contact from the ward clerk. However, a longer-term collection plan of adding this

to the trust porter system is being considered. Batteries are collected via the Battery Back Scheme operated by WasteCare².

- A sustainability leaflet was shared with clinical areas, including useful contact numbers, information on the Leeds GRASP rewards, Carbon Literacy training, and PEAT 'let us help you' section. (Appendix 1).
- Contact details for the Trust Sustainability team were also left in a sustainability leaflet, should clinical teams wish to request implementation of DMR in clinical areas.

Measurement:

We successfully initiated and installed DMR and battery recycling for trial across 7 clinical areas. Data was collected between the 7/2/2022 and 18/2/2022.

Environmental: We collected data on how many DMR bags were filled on average per week, extrapolating an average weight per bag. The average weight of DMR and batteries in tonnes was used to calculate carbon savings. Clinical waste incineration emissions factor from Rizan et al (2021)¹ was used.

Financial: Matthew Quinton, Waste Compliance and Sustainability Manager, provided Trust costs of various wastes streams. Prior to implementation of DMR, all waste was disposed of via domestic waste at £97.00 per Tonne. As batteries were being disposed of via sharps bins, an assumption was made that batteries were previously disposed of in clinical waste, and therefore incinerated at £925.00 per Tonne. Use of DMR would reduce the cost to £89.00 per Tonne for recycling. Battery collection by WasteCare is free to the Trust.

Social: Informal feedback was gained by engagement with clinical staff.

Results:

Environmental benefit:

DMR: Waste disposal emissions were reduced by 9.47 kgCO₂e for the 7 areas per week (492.89 kgCO₂e per year). If applied to the remaining 79 areas (excluding 4 that already had DMR), the projected annual saving is **5562.62 kgCO₂e**.

Battery bins: Emissions reduced by 1.25 kgCO₂e on average per week, per trial area. Due to the nature of clinical work, there will be significant variation in how quickly areas fill Battery Bins, making it challenging to accurately project data. We have therefore projected the annual potential savings as a percentage of our actual data. Projected at 70%, the potential annual saving across the 7 trial areas is 318.5 kgCO₂e. As a conservative estimate, projected across the remaining 76 areas in the trust with 30% applicability, an additional **1,482 kg CO₂e** could be saved across the Trust.

Financial benefit:

DMR in the 7 trial areas saved the Trust approximately 50p per week, with an annual saving of **£26.11**. If applied to the other 79.00 areas with no DMR this would be a projected annual saving of **£294.71**.

Battery recycling saved £1.15 on average per area per week. Projected at 70%, there is a potential annual saving of **£291.20**. Projected at a conservative 30% across remaining 76 areas **£1,358** could be saved annually across the Trust.

Social sustainability:

Engagement with clinical teams showed that staff care about becoming more sustainable. The sustainability leaflet has supported awareness and so far, the sustainability team have received three emails requesting DMR recycling in clinical areas. Matron, Honey from Ward J04 said

"The implementation of DMR and Battery recycling has been very beneficial to the area as it is cost effective and good for the environment" and "The PEAT team are an asset to the Trust, very helpful and always willing to go above and beyond in their works, improving the Patient Environment".

Barriers encountered:

DMR in clinical areas was not possible due to a) concern raised by Infection and Prevention Committee, b) it required training delivered by Trust Waste Trainer, and c) it required additional waste segregation be arranged on site, which was not feasible for the scale of this project. This continues to be a longer-term trust wide project.

Steps taken to ensure lasting change and conclusion:

Meaningful engagement between PEAT Technicians and clinical staff has been key to successful implementation of this project. Whilst continued long-term implementation of DMR and Battery bin recycling will transition to the Trust's Sustainability team, we feel our project has shown that all staff have a role to play in achieving net zero ambitions.

We will continue to embed sustainable improvements into our work. A sustainability assurance section has been added to the PEAT 'works carried out sign off sheet' including staff engagement actions to promote the aims of this project. Two successful stock room reviews have been carried out jointly with ward clerks with issues including out of date stock, stock no longer required in the area, and ample stock with ongoing continuous orders risking additional out of date items noted. We are continuing to 'study the system' and identify change ideas jointly with clinical teams to support streamlining stock ordering and storage management.

References

1. Feeds Teaching Hospitals NHS Trust Green Plan 2020-2022. Available at: [LTHT-Green-Plan-FINAL-compressed-v2.pdf \(leedsth.nhs.uk\)](#)
2. [Batteries - WasteCare Compliance](#)
3. Rizan C, Bhutta M, Reed M, Lillywhite R. The carbon footprint of waste streams in a UK hospital. Journal of Cleaner Production 286 (2021) 125446. Available at <https://www.sciencedirect.com/science/article/abs/pii/S0959652620354925>

Appendix 1: Sustainability leaflet

Think before you print!

A simple way to have a huge impact on the environment is through reducing paper consumption, by turning paper documents into electronic ones and eliminating paper.

A tree can only produce, on average, 17 reams of paper, and takes about 100 years to grow. By reducing paper usage, we can have a direct impact on reducing our carbon footprint.

Additionally, trees are also 'carbon sinks' and every tree that is not cut down for paper usage is able to absorb CO2 gasses. The average tree can absorb around a ton- 2,000 lbs- of CO2 in its lifetime.

Additionally as reviewed as part of the annual NHS Patient Led Assessment of the Care Environment (PLACE) inspections, Clinical areas should create a sense of tidiness for our Patients, and reducing non essential notices from notice boards, not only create a tidy environment but would also reduce the use of paper.

PLACE guidelines state that:

- Reception areas and nursing stations should look neat and tidy.
- Noticeboards should display only essential information and up-to-date notices.
- There should be separate noticeboards for patient and staff information.

Useful Information:

Key Contact Details:

Waste Compliance Team - leedsth-tr.eafwastecompliance@nhs.net

leedsth-tr.sustainability@nhs.net

Useful Links:

<https://www.england.nhs.uk/greenernhs/>

<http://lthweb/sites/sustainability>

LTHT- Green Plan : <http://lthweb.leedsth.nhs.uk/sites/sustainability/ltht-green-plan-final/view>

GRASP the Challenge!

Be sustainable, get rewarded with GRASP Rewards!

We're making it easy (and rewarding!) for all Leeds Hospitals staff to take positive environmental actions. We have launched GRASP Rewards to show that you can make a difference. The online platform and mobile app will show you a range of simple actions you can take that will have a big impact. In return, you will be awarded Green Points!

Each month those who earn the most Green Points will win a £20 voucher, or you could be our lucky monthly raffle winner simply for taking part. Choose from activities like energy quizzes and reporting your recycling or try eating local food and growing your own plants!

That's not all: you'll compete as part of your CSU team, and every six months the teams that have earned the most Green Points per person will win a share of £200 to donate to their favourite Leeds Hospitals Charity funding area.

How can I join?

[Homepage \(greenrewards.co.uk\)](http://greenrewards.co.uk)

What do I need to do?

1. Turn it off
2. Turn off the light when outside is bright
3. Save Water
4. Dry Mixed Recycling
5. Segregate Waste
6. Leave your Car at home
7. Measure your Carbon Footprint at: <https://footprint.wwf.org.uk/#/>

For help contact the Sustainability Team:

leedsth-tr.sustainability@nhs.net



How can you and your area contribute to a Greener NHS?

"Be Green, Recycle, be Aware, be Sustainable for our Patients"

Climate change poses a major threat to our health as well as our planet.

The environment is changing, that change is accelerating, and this has direct and immediate consequences for our patients, the public and the NHS.

This is why the NHS has launched the 'For a greener NHS' programme, to build on the great work being done by trusts across the country, sharing ideas on how to reduce the impact on public health and the environment, save money and – eventually – go net carbon zero.

At Leeds Teaching Hospitals we are already doing lots of great work to reduce carbon, waste and air pollution across our hospital sites.

National ambition

To deliver the world's first net zero health service and respond to climate change, improving health now and for future generations.

This leaflet, sets out how you personally and your area can become more sustainable, working together to reduce carbon emissions at Leeds Teaching Hospitals Trust (LTHT).



LTHT- Green Plan

Our Green Plan

We have the aspiration to become one of the greenest NHS Trusts in the UK. Our Green Plan is the central document for the Trust's sustainability agenda including our objectives and how they will be met.

This Green Plan establishes the Trust's sustainable vision, our targets and the actions by which to achieve this vision. The Trust considers sustainability to be a key issue facing the future, for the Trust, the City of Leeds, the UK and beyond.

The Green Plan is designed to enable us to:

- Reduce our total carbon emissions (through consumption of fuels, energy, and materials consumption)
- Reduce our contribution to air pollution
- Reduce our use of plastic and improve recycling

During 2021, The Trust was proud to announce that they were recognised as the first NHS Trust to become Carbon Literate!

PEAT Team- Let us help you!

The Patient Environment Action Team (PEAT) are a dedicated team from Estates & Facilities (E&F), who attend Clinical areas annually to carry out minor routine Estate and Maintenance works, along carrying out Vent, Light and Radiator cleans.

The PEAT team want to help you and your team become more sustainable!

Commencing February 2022, as part of their scheduled visit, the team will help you become more sustainable by:

- Supporting the installation of Dry, Mixed Recycling in Staff rooms.
- Supporting the installation of battery Recycling stations.
- Offer you a review of your store rooms, with the aim to de clutter aligned with Lean 4 Leaders 5S key principles.
- Leave you with a 'How can you and your area contribute to a Greener NHS' information leaflet.

Waste Segregation

Did you know that it is a legal requirement to segregate your waste correctly?

Correct segregation saves the Trust both £££'s and CO2.

- General and Offensive waste - all goes waste to energy.
- In 2021 462.13kg of CO2 Saved = 2000 planted trees.
- LTHT have introduced reusable sharp containers and some of our clinical waste is repurposed.
- Confidential Waste - green bags or hessian sacks – 100% of the waste is shredded and recycled.
- Only dispose of clinical waste into the correct clinical waste receptacles or bags .

The Trust's Waste Compliance team are happy to support with any queries or training you or your team may require:

leedsth-tr.eafwastecompliance@nhs.net

Dry Mixed Recycling (DMR)

What CAN be put in a dry mixed recycling bin ?

- Cardboard
- Plastic Bottles (clear and coloured plastic bottles)
- Tin and cans (clean and empty food and drinks cans)
- Paper (Not confidential)

What can NOT be put in a dry mixed recycling bin?

- Coffee Cups
- Contaminated Food Packaging
- Tissues
- Confidential waste

Carbon Literacy Training

Carbon Literacy is externally accredited training designed to educate colleagues about climate change.

If you would like more information on the above or would like to arrange training for your team, please email : leedsth-tr.sustainability@nhs.net

Energy

Electricity

The Trust encourages staff to save energy by remembering to turn off lights and electrical equipment such as computers when they are not required.

Natural lighting should be utilised by opening blind and curtains and turning lights off when appropriate, this also helps patients and staff by promoting health, wellbeing, alertness, mood and good sleep patterns.

At night, where suitable, lights should be turned off to reduce light pollution and help patients sleep properly.

Side room lights should be turned off if not needed and all lights in non-clinical areas should be turned off when leaving work. The Trust are trialling the installation of occupancy sensors on lights in priority areas.

Did you know?

1 computer left on overnight creates enough CO2 to fill a double decker bus!

Heating

Regulating room temperatures for patients is a priority, this should be done without using electric heaters which could overload the electricity supply and put patients at risk. To keep rooms warm and protect patient safety and privacy close doors and windows. Blinds and curtains should also be closed at night to retain heat. Please contact the sustainability team if your workplace is too cold.

Water

The Trust spends >£1 million on water a year, and uses enough water to fill 26,500 baths a day!

You can help reduce the amount of water used by the Trust by not leaving taps running and reporting any dripping taps or leaks to Estates using the K2 Portal on the intranet.