

**ROYAL
PHARMACEUTICAL
SOCIETY**



RPS GREENER PHARMACY GUIDE

To be used in conjunction with the RPS Greener Pharmacy Toolkit

For Community Pharmacies

Publication date: September 2023

Contents

Contents	2
Introduction	3
Purpose	4
Scope	4
RPS Greener Pharmacy Guide	5
Using the guide	5
Domain 1: People	6
Domain 2: Clinical Practice	8
Domain 3: Travel	11
Domain 4: Resource Use	13
4.1. Energy and water	13
4.2. Waste and recycling	16
4.3. Procurement and Supply Chain	18
Domain 5: Information and communications technology (ICT)	19
Domain 6: Operations and strategy	20
Appendix 1	23
Pharmacy travel audit	23

Introduction

The Royal Pharmaceutical Society (RPS) Greener Pharmacy Guide has been developed to raise awareness and capability of pharmacy staff to reduce the environmental impacts of the pharmacy sector. The scoping review underpinning the development of the guide which will be published on the RPS website. This guide supports the rollout of the RPS Greener Pharmacy Toolkit, which community pharmacies can use to self-accredit their sustainability status. The guide sets out actions that pharmacy staff and pharmacy settings can achieve to help the NHS meet its net zero targets. The following policy documents highlight the UK healthcare systems' commitment in reducing their environmental impacts:

- England – Delivering a 'Net Zero' National Health Service, 2020¹;
- Wales – NHS Wales Decarbonisation Strategic Delivery Plan, 2021²;
- Scotland – NHS Scotland climate emergency and sustainability strategy: 2022-2026³.

The actions outlined within the guide and toolkit may be embedded into existing policy levers and contracts where appropriate by various NHS stakeholders. The actions listed in the guide and toolkit have been mapped to achieve General Pharmaceutical Council (GPhC) standards for registered pharmacies (2018) and the United Nations Sustainable Development goals.

Community pharmacies are encouraged to self-accredit as part of their corporate social responsibility initiatives, and work towards implementing an environmental management scheme for accreditation. A net zero pharmacy may appear more attractive to customers or patients and improves the organisation's reputation in a competitive market as demonstrated in a Welsh research⁴.

The guide was developed using RPS processes. The guide's development was led by healthcare professionals with expertise in environmental sustainability with multi-stakeholder engagement and feedback.

¹ Greener NHS. Delivering a 'Net Zero' National Health Service [Internet]. 2022 Jul 4 [cited 2023 Sep 9]. Available from: <https://www.england.nhs.uk/greenernhs/publication/delivering-a-net-zero-national-health-service>

² NHS Wales. NHS Wales decarbonisation strategic delivery plan [Internet]. 2021 Mar [cited 2023 Sep 9]. Available from: <https://www.gov.wales/nhs-wales-decarbonisation-strategic-delivery-plan>

³ NHS Scotland. NHS Scotland climate emergency and sustainability strategy: 2022-2026 [Internet]. 2022 Aug 16 [cited 2023 Sep 9]. Available from: <http://www.gov.scot/publications/nhs-scotland-climate-emergency-sustainability-strategy-2022-2026/>

⁴ Public Health Wales. Time to Talk Public Health [Internet]. 2023 Jul. [cited 2023 Sept 9] Available from: <https://phw.nhs.wales/topics/time-to-talk-public-health-panel/time-to-talk-public-health-panel-publications/publications/time-to-talk-public-health-june-2023-panel-survey-findings/>

Purpose

The guide outlines key actions to reduce the carbon hotspots of pharmacy services and help pharmacy staff to self-accredit pharmacy settings on their sustainability status using the toolkit. The guide allows all pharmacy staff and settings to:

- Have the knowledge and capability to understand the environmental impacts of healthcare, medicines and pharmacy practice
- Reduce the environmental impacts of healthcare, medicines and pharmacy practice to meet the NHS's net zero commitment
- Certify their sustainability credentials of pharmacy settings to show how they are reducing their environmental impacts
- Estimate the impact of actions taken in the toolkit to allow for quantification of carbon savings
- Raise awareness to patients and the wider public of the environmental impact of healthcare, medicines and pharmacy practice and the interdependency with health.

Scope

The guide can be adapted to cover community pharmacy services provided by:

- Independent community pharmacies
- Small and large chain community pharmacies
- Distance selling pharmacies
- Mobile pharmacies in rural areas
- Veterinary Pharmacies

RPS Greener Pharmacy Guide

The guide contains six overarching domains:

1. **People**
2. **Clinical Practice**
3. **Travel**
4. **Resource Use**
5. **Information and communications technology (ICT)**
6. **Operations and strategy**

This guide is less focused on clinical pharmacy practice and more about empowering pharmacy staff and decarbonising pharmacy settings. Each domain lists various co-benefits of the actions taken which are appealing to the pharmacy sector such as time saving, cost saving, improving health and wellbeing of patients and staff as well as waste reduction.

Using the guide

There are three levels under each domain with actions at each tier that pharmacy staff and settings can accomplish to progress towards the target goals associated with each level. Using the toolkit on the web platform, this guide can help community pharmacies work consistently towards reducing carbon hotspots and display their accreditation publicly to show their progress towards a net zero pharmacy. It is recommended that the actions listed in the guide and toolkit are shared between as many pharmacy staff possible to complete according to timelines set by the task group.

Level	Action	Target achievement
1	Easy, few actions, low data input	100%
2	Moderate, more actions, more data input	70%
3	Hard, few actions, high data input	50%

Associated resources on the RPS website provide links to legal and regulatory frameworks, international standards, core standards required by systems regulators, as well as signposting to more detailed guidance, resources and support tools. Individuals and organisations are encouraged to submit examples of good practice to RPS as well as further feedback on the guide (support@rpharms.com).

Domain 1: People

All staff in the healthcare system play a crucial role in helping the NHS meet its net zero ambitions. They directly influence the healthcare emissions, can educate colleagues, patients and the wider public about environmental sustainability, help innovate technologies to address inefficient practices and become role models for others to follow. Their collective efforts help mitigate the impacts of climate change and promote a healthier sustainable future for all.

Outcome: The listed actions in this domain ensures the whole pharmacy team is informed and aware of the potential impacts of climate change and are equipped with knowledge and skills to implement sustainable changes in their professional and personal lives. This can also result in cost savings, promotion of good health, and sharing of good practice to improve pharmacy services.

GP Practice or PCN Pharmacists should use the RCGP's [Green Impact for Health Toolkit](#). Pharmacy staff in Wales should start their sustainability journey using [The Greener Primary Care Wales Framework and Award Scheme from Public Health Wales](#).

Level 1:

Pharmacy staff regularly engage the local community in conversations and initiatives related to disease prevention and environmental health.

Community pharmacies are uniquely placed in the heart of communities to promote public health services such as treating common conditions, weight or hypertension management, smoking cessation, travel and flu vaccinations. Through shared-decision making and person-centred care, pharmacists can reduce overprescribing by tackling the wider social determinants of health. Pharmacy staff should be able to opportunistically signpost to preventative health services and empower people with the knowledge to better manage their own health.

Suggested e-learning:

- [Make Every Contact Count programme](#)
- [Centre for Postgraduate Pharmacy Education \(CPPE\) – Healthy Living Pharmacies](#)

Pharmacy staff have undertaken a continuous professional development (planned or unplanned), peer discussion or reflective record relating to environmental sustainable healthcare.

This can form part of General Pharmaceutical Council (GPhC) registered pharmacy staff's annual revalidation. Some recommended courses are listed below:

- [Building a Net Zero NHS](#)
- [Greener NHS Carbon Literacy](#) or [Greener NHS training hub](#)
- [All Our Health Programme](#)
- [CPPE Environmental Sustainability Gateway](#)
- [Centre for Sustainable Healthcare \(CSH\) courses](#)
- [Sustainability Leadership for Greener Health and Care Programme](#)

Level 2:

Pharmacy has included environmental sustainability and net zero objectives in all pharmacy job descriptions, job adverts, induction, interviews, governance and culture.
Pharmacy staff have joined a greener pharmacy network.
<p>Joining like-minded individuals who are passionate about the subject can foster a sense of community and support, allowing learning from one another, sharing of ideas and collaboration on initiatives. Examples of green pharmacy networks are listed below:</p> <ul style="list-style-type: none"> • Pharmacy Declares • Sustainability in Pharmacy Education (SPE) Group • Greener PCPA • Centre for Sustainable Healthcare (CSH) Pharmacy Sustainability Network • Healthcare without Harm Pharmacists for Greener Healthcare
Pharmacy staff have read the RPS Sustainability Policies and openly pledged a sustainable action in the RPS Climate Change Charter which is displayed in their pharmacy settings or on their social media accounts.
By participating, you can help raise awareness about the urgency of climate change, its impacts, and the actions individuals and societies can take to address it. An example of a simple pledge could be using reusable cups and avoiding disposable single-use cups for hot drinks.
Pharmacy staff are kept up to date with the latest healthcare environmental sustainability news.
<p>The climate-health sphere is ever changing in light of new research and innovation. One member of staff in the pharmacy setting can sign up to the relevant newsletters and be responsible for forwarding them onto the rest of the pharmacy team. The following are some recommended green newsletter subscriptions:</p> <ul style="list-style-type: none"> • Greener NHS or Greener NHS Knowledge Hub • Centre for Sustainable Healthcare (CSH) • Green Health Wales • Greener Practice • The Pharmaceutical Journal Green Pharmacy • UK Health Alliance for Climate Change
Pharmacy staff has organised workplace social events that promote the environment.
This can encourage pro-environmental behaviours and improve individual's relationship with nature. The event can also be organised with local communities or healthcare professionals to foster a sense of community and encourage people to get involved in eco-friendly initiatives. E.g., beach clean, tree planting, walking or hiking
Pharmacy staff have participated in environmental campaigns to raise awareness.
By participating in environmental campaigns, individuals and organisations contribute to the collective effort to protect and conserve the environment. Education and awareness raising through campaigning can lead to behaviour change as people become more informed and can inspire individuals to engage in environmental advocacy. E.g., Clean Air Day, No Meat May, antibiotics amnesty campaigns or World Environment Day.

Level 3:

Pharmacy staff have participated in a SusQI project.
Pharmacy staff are encouraged to undertake Sustainability in Quality Improvement (SusQI) courses to successfully implement their SusQI projects and share good practice with other organisations.
Pharmacy staff have organised local, regional or national teaching, webinars or conferences to raise awareness of sustainable healthcare.
These events can be organised sustainably using Pharmacy Declares' Sustainable Conference Checklist .
Sustainable healthcare have been embedded into existing training programmes within the business.
Pharmacy staff have applied for or collaborated with local organisations to secure funding for environmental sustainability research projects or pilot studies.
Some green funding resources are listed below: <ul style="list-style-type: none"> • Healthier Futures Action Fund • Small Business Research Initiative Healthcare Funding

Domain 2: Clinical Practice

Medicines account for 25% of the NHS's carbon footprint in England (2% from anaesthetic gases and 3% from inhalers) and the unintended wider ecological impacts of medicines use should be mitigated where possible.

Outcome: The listed actions introduce measures pharmacy staff can take to reduce the environmental impacts of clinical pharmacy practices and pharmaceuticals through shared-decision making and personalised care. It can present cost savings, improve patient outcomes, reduce unnecessary waste and increase pharmacy productivity.

Level 1:

Raise awareness among all healthcare staff and inform patients to avoid pouring any pharmaceuticals or chemicals down sinks, toilets or drains. Enforce messaging of returning all unused or unwanted medications to local pharmacies for disposal.
Medications include inhalers, topical products, eye, ear or nose drops, sprays, patches and injections. Any returned medicines or medical devices due to adverse effects or incidents in England and Wales can be reported via the usual Yellow Card site. As part of Pharmacy Quality Scheme Guidance 2023/24 , all pharmacy staff should be trained on the reasons why unwanted and expired antibiotics should be returned to the pharmacy for safe disposal and the adverse effects on the environment and antimicrobial resistance (AMR) when antibiotics are disposed of in domestic waste.

Implement environmental sustainability messaging in patient communication. E.g., pharmacy drug labels, pharmacy bags, text messaging to patients or the pharmacy website. See: [Meds Disposal Campaign](#).

Routinely ask patients to check their medications in pharmacy bags before leaving the pharmacy to prevent return of incorrect or unwanted items.

Current regulatory rules prevent medicines to be reused once they have left the pharmacy settings. It is therefore useful to check with patients or carers upon collection of their medications whether all items are correct and needed before they leave the pharmacy.

Pharmacy settings have displayed environmental sustainability messaging (e.g., RPS Greener Pharmacy accreditation certificate, posters or leaflets) visible to patients and wider staff members to raise awareness.

Computer screensavers or notice boards in pharmacy settings can be utilised to communicate relevant messaging. Staff tearoom area could display message such as avoiding over-filling kettles when making hot drinks to save energy.

Level 2:

Pharmacy staff promotes safe and environmentally friendly disposal of all unwanted and used inhaler devices by engaging in discussions with all patients, their carers and/or representatives.

Inhalers disposed inappropriately release greenhouse gases with global warming potential when crushed in landfill. This is part of [Pharmacy Quality Scheme Guidance 2023/24](#).

Pharmacy staff are able to optimise respiratory care to reduce carbon footprint related to inhalers and improve respiratory disease outcomes

Pharmacy staff are able to recognise short-acting beta-agonists (SABA) overuse via repeated prescribing (>6 SABAs per year) or emergency requests and refer patients back to their clinicians for review.

Pharmacy staff should offer the new medicines service (NMS), with the appropriate inhaler technique check, to all patients presenting with a prescription for a new inhaler (i.e., for the first time or changed to a new inhaler device), especially those switched from a metered dose inhaler to a dry powder inhaler. This is linked to [Pharmacy Quality Scheme Guidance 2023/24](#).

Further resources:

- [Greener Practice High Quality and Low Carbon Asthma Care toolkit](#)
- [Asthma + Lung UK](#)
- [Greener Practice Guide to reducing the carbon footprint of inhaler prescribing](#)
- [NHS Wales inhaler carbon footprint reports](#)
- [MIMS Inhaler carbon emissions](#)
- [NICE Asthma Patient Decision Aid](#)
- [CPPE - Respiratory](#)

Pharmacy staff can signpost to vegan-friendly medication options.

Some patients may choose to take medications that are vegan-friendly, therefore pharmacy staff should be aware of existing resources to signpost patients:

- [What are the general considerations for vegan patients?](#)
- [Which E-numbers and additives are from animal origin?](#)

Pharmacy staff do not automatically order and dispense medications on repeat dispensing without speaking to patients and assessing what is actually required.

Review monthly orders of 'PRN, when required' medications. The medicines optimisation team at [Dartford, Gravesham and Swanley](#) has implemented an app-based prescription ordering direct scheme across limited number of GP surgeries and identified cost saving of £650,000 in the first year which could be translated to carbon savings.

Further resources: [RPS repeat medicines guide](#); [CPPE – Repeat dispensing](#)

Pharmacy staff are able to teach patients how to swallow solid drug formulations.

Champion the delivery of the [KidzMed programme](#). Solid drug formulations have longer shelf lives (reducing liquid medication waste), usually do not require refrigeration (larger CO₂e are associated with cold-chain medicines), easier to transport and are more readily stocked at pharmacies (reducing patient travel when attempting to source liquid medication from multiple pharmacies).

Prescribers should also consult evidence-based literature on the [Special Pharmacy Service website](#), or the [NEWT guidelines](#), for options to crush or dissolve tablets and prescribe alternative formulations (e.g., dissolvable tablets).

Pharmacy staff knows how to signpost patients to health and wellbeing coaches, social prescribers or link workers through their GP practices for a range of local, non-clinical services.

E.g., volunteering in charities, arts activities, group learning, gardening, cookery or walking provided by voluntary or community organisations. This holistic approach in addressing social determinants of health may reduce future need of healthcare access and engage communities with their local environment. See: [Green social prescribing](#).

Pharmacy settings have conducted a risk assessment and outlined in their standard operating procedures (SOPs) when staff should wear personal protective equipment (PPE) for pharmacy clinical service provision.

E.g., When administering vaccines in community pharmacies. See: [Gloves Off Campaign](#).

Pharmacy have ensured data sharing agreements and interoperability standards are in place to enable data transfer and sharing across healthcare services.

Consent patients to utilise shared patient records and NHS websites to avoid unnecessarily diverting patients to emergency services, NHS 111 (NHS24 in Scotland) or walk-in centres out of hours for prescription requests, which increases the carbon footprint of other healthcare services and travel. E.g., [NHS Spine Web Portal](#), [NHS Service Finder](#) or the National Care Records Service

Level 3:

Optimise multi-compartment compliance aids (MCAs) sizes to reduce plastic use.

Also known as pill organisers, pill containers, dosette boxes, nomad trays, pill cases or pillboxes.

Patients on a twice-daily medication regime could receive a 14-grid compartmental box rather than the standard 28-grid compartmental box to minimise plastic use.

The need for compliance aids should regularly be reviewed by pharmacy staff, and the use of medication reminder charts or digital reminders for drug administration at home could be promoted with a view to eliminate plastic use.

Reusable compliance aids could be encouraged, provided they can be quality-assured.

Further resources: [RPS guide on MCAs](#).

Report the number of MCAs in all sizes ordered the past year in the toolkit to calculate CO₂e.

Pharmacy settings adequately stocks lower carbon alternatives.

Pharmacies could liaise with their medicines optimisation committees locally on any changes in local prescribing practices to promote low-carbon products (e.g., branded lower-carbon pressurised metered dose inhalers or a wider range of dry powder inhalers) and adequately stock them to be available for patients.

Enrol pharmacy settings in available recycling schemes.

Successful implementation of these schemes is highly dependent on broader recognition of their accessibility and should therefore be actively promoted locally.

- [Inhaler recycling](#)
- [Medicine blister pack recycling](#)
- [Novo Nordisk PenCycle](#)

Audit the amount of unused or expired medicines.

Conduct a medicines waste audit using the [RPS waste medicines audit toolkit](#).

Domain 3: Travel

Road travel from patients, visitors, staff and NHS suppliers account for 14% of the healthcare system's total emissions in England. The use of technology can foster networking opportunities in larger geographical areas, reduce unnecessary travel delays or disruptions that risk business continuity or exposure to health-related concerns, e.g., disease outbreak.

Outcome: This domain introduces measures pharmacy teams can take to promote active travel and reduce unnecessary business travel that saves both time and costs. It promotes cleaner air for all and improves physical and mental health for staff and patients.

Level 1:

Pharmacy staff promotes active travel.

Walk, cycle, car share, park and ride or take public transport to work. Pharmacy staff should explore their eligibility for discounted travel passes for public transport and encourage patients to visit their pharmacy via active travel to promote health.

It is understandable that active travel might not be ideal for some, and they should be offered priority parking spaces, e.g., mobility issues, working out of hours in areas with poor public transport systems or deemed unsafe to walk alone or have caring responsibilities.

Pharmacy staff utilises virtual meeting platforms to conduct meetings or educational events remotely, where possible, to reduce unnecessary travel.
Staff should have access to digital devices with virtual platforms such as Teams or Zoom and good network server connection to facilitate this.
Pharmacy staff actively supports patients in navigating through the complex health and social care systems and overcoming barriers to access healthcare services.
All community pharmacies should provide up-to-date opening hours and contact details on the NHS website , which will allow other healthcare professionals to signpost patients appropriately for any emergency supplies of prescriptions or consultations via the Community Pharmacist Consultation Service (CPCS). Updating pharmacy profiles to show they are a 'Pharmacy palliative care medication stockholder' can save relatives/carers and healthcare professionals time and carbon footprint traveling to different community pharmacies to obtain palliative/end of life care medicines as per Pharmacy Quality Scheme Guidance 2023/24 .

Level 2:

Availability of greener and active travel amenities in pharmacy settings are widely promoted to patients and visitors to encourage low carbon travel.
E.g., Cycling or bus routes, bus or rail timetables or walking times to pharmacy settings are displayed in the pharmacy settings or the pharmacy's website.
Switch to greener fleet.
Consider cargo bikes smaller, hybrid or electric vehicles to deliver medications or conduct home visits for any clinical services offered by pharmacy. Businesses who have replaced their vehicles reportedly take between four and ten years to recover their costs on average. Pharmacy businesses can pay staff up to 12p per mile tax-free for using their own cycles on business travel. Pharmacy staff can claim tax relief of 12p per business mile if their employer does not provide payment and can also claim capital allowance on a proportion of the cost of the bicycle for business travels (excludes travel to and from work). The workplace charging scheme provides eligible applicants with support towards the upfront costs of the purchase and installation of electric vehicle charge points with potential savings on fuel, tax and road charges. The plug-in grant scheme offers discounts on certain vehicles.
Pharmacy settings has infrastructure to promote active travel and green transport.
Fit bike racks or bike sheds, have an onsite bicycle puncture repair kit and pump, and shower facilities or changing rooms for pharmacy staff. Install electric vehicle charging points in pharmacy settings. Pharmacy businesses can sign up to the cycle to work scheme where pharmacy staff can purchase bicycles or cycling equipment through salary sacrifice arrangements, resulting in savings on income tax.

Level 3:

Conduct an audit of pharmacy staff travel.
Conduct an audit of patient travel.
Conduct an audit to optimise pharmacy business travel routes.

Please see the suggested travel audit form in Appendix 1. Pharmacy staff can choose to adapt the format but retain the key questions listed to calculate travel CO₂e to report on the toolkit. Ideally, the data from the audit should cover the span of at least one month.

Results from survey can be utilised in future policy and decision making processes with local councils or authorities to improve public infrastructure to promote greener travel.

Pharmacies should plan and optimise routes of medication deliveries or home visits localised to an area where possible.

Implement [eConsult](#) services or [Near Me](#) (Scotland) where appropriate, allowing patients to consult pharmacists remotely without the need to travel.

Domain 4: Resource Use

4.1. Energy and water

Energy production and consumption are the largest sources of global greenhouse gas emissions. Combustion of fossil fuels also emits air pollutants exacerbating the issues of global air pollution which is harmful to health. Resources to create this domain include [RCGP Net Zero Hub](#), [TUC Go Green at Work](#), and [UK Business Climate Hub](#).

Purifying, storing, heating and supplying of water to pharmacy settings followed by sewage processing is energy-intensive and attached with large CO₂e. NHS staff are under legal obligations to conserve water under the Water Act 2003.

Outcome: This sub-domain introduces measures which pharmacy teams and settings can take to improve energy efficiency. This will reduce running costs for pharmacy settings, create a favourable working environment (neither overheated nor overcooled), and support people who might be sensitive to temperature changes (e.g., hypothyroidism, menopause). Actions in this sub-domain also promote water conservation, reduce water consumption and prevent pharmaceutical pollution of water sewage systems.

Level 1:

Pharmacy staff keep radiators free from obstruction and turn off air conditioning if window(s) or door(s) are open.

Obstructed radiators reduce heat distribution and lead to uneven heating in a room. The heating system may need to run longer or at a higher temperature to maintain the desired room temperature as a result using more energy. If the room is overheated, turn down the thermostat instead of opening the doors or windows to cool the room down.

Hot outdoor air can flow into the cooled indoor spaces causing the air conditioner to use more energy to maintain the desired temperature. If the room is overcooled, turn up the thermostat instead of opening the doors or windows to heat the room up.

Pharmacy staff manually switch off or set a timer for all heating, cooling and electrical devices in pharmacy settings to match operating hours.

E.g., lights, monitors, desktops, laptops, printers, scanners, photocopiers, automated dispensing machines, prescription endorsement machine.

Set all electronic devices to enable standby, eco-friendly or low-power modes, and to power down after several minutes of inactivity. Reduce computer monitor brightness to save energy.

Consider adjusting the timer for clock changes and bank holidays.

Ensure all controls and switches in pharmacy settings are clearly labelled.

This helps pharmacy staff to switch on or off lights or devices in pharmacy settings without unnecessarily wasting energy.

Pharmacies should optimise fridge or freezer spaces without overloading them and reduce the number of unnecessary fridges or freezers running in the department.

See [Specialist Pharmacy Services \(SPS\) guidance](#) on using, monitoring, maintaining fridges and freezers.

Level 2:

Pharmacy staff are aware how to report leaks or water waste promptly.

Regularly inspect and repair leaks in plumbing systems, taps and toilets in pharmacy settings. Small leaks can waste significant amounts of water over time.

Switch all lighting in pharmacy settings to light-emitting diode (LED) bulbs.

Upgrading from conventional lighting to LED bulbs could deliver cost savings of up to 80% for your business. LED bulbs use less energy, last much longer and reduce maintenance costs compared with regular bulbs.

This may not be possible for small or large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead.

Ensure all windows in pharmacy settings are inspected and maintained, and doors in pharmacy settings are draught-proofed to prevent heat escaping.

All doors and windows should be able to open and close properly. Closing curtains and blinds overnight can help insulate the pharmacy settings from unwanted heat gains or losses. Consider installing double-glazed or triple-glazed windows to reduce heat escaping, external noise and condensation buildup inside windows.

This may not be applicable for small or large chain community pharmacies located within stores.

Conduct annual maintenance of boilers and electrical items in pharmacy settings.

Regularly serviced boilers and electrical items prolonged the lifespan of the product whilst ensuring they operate efficiently.

Maintain and optimise heating, ventilation and air conditioning (HVAC) systems in pharmacy settings using programmable thermostats to regulate the temperature based on occupancy.

Turning down the thermostat by just 1°C can save 10% on heating costs and CO₂e, but pharmacy settings must take into account the optimum medicines storage conditions. The Chartered Institution of Building Services Engineers recommends the temperature settings of 18°C on hospital wards and shops and 20°C for offices.

This may not be possible for small or large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead.
Switch to non-fossil fuel electricity sources in pharmacy settings.
Businesses are exempt from the Climate Change Levy for utilising renewable sources. Diversifying energy sources and reducing reliance on fossil fuels improves energy security by reducing pharmacy business vulnerability to price fluctuations. The reduction of fossil fuel burning improves air quality and, in turn, reduces incidences of respiratory and cardiovascular diseases. This may not be possible for small or large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead.
Install motion sensor or timer-controlled lights in low-use areas.
E.g., toilets, changing rooms, offices and education rooms. This may not be possible for small or large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead.
Install tap flow restrictors in pharmacy settings.
The amount of water saved will depend on the specific restrictor and pharmacy staff's habits of water usage. Consider using Hippo the Water Saver to help conserve water in toilet cisterns.

Level 3:

Carry out an audit of gas and electricity usage in pharmacy settings.
Benchmarking energy usage and setting targets to reduce the CO ₂ e overtime helps identify resource and cost saving opportunities for pharmacy settings. It also allows comparison with other pharmacy settings of similar sizes for best practice recommendations. This may not be possible for large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead. Independent community pharmacies may wish to engage with an external energy/carbon/sustainability consultant to create a system for monitoring performance against tailored action plans to decarbonise. Further resource: Energy Audit Checklist Report the annual electricity and gas usage (annual kWh) in the toolkit to calculate carbon emissions (CO ₂ e).
Pharmacy settings have invested in onsite energy generation.
E.g., Solar panels. Businesses who installed their own renewable electricity generators or low-carbon heating system on average, made their costs back in one to ten years. Look out for government, local council or energy company schemes that offer loans, grants or subsidised energy-saving measures to help businesses reduce their environmental impact. This may not be possible for small or large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead.
Switch gas boilers to heat pumps, electric (and infrared) heaters, solar thermals, and district heating systems.
Boiler replacement through the Boiler Upgrade Scheme should be explored in England and Wales where a grant can be secured to cover part of the cost of replacing fossil fuel heating systems with

a heat pump or biomass boiler. [Grant funding](#) for energy efficiency improvements in Scotland is also available.

This may not be possible for small or large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead.

Where possible, install a smart meter for better monitoring of gas and electricity usage in pharmacy settings.

See the [Smart Energy GB](#) website for more information.

This may not be possible for small or large chain community pharmacies located within stores, consult your head office or organisation's sustainability lead.

4.2. Waste and recycling

To address the environmental issues associated with healthcare waste, it is crucial to implement proper waste segregation, collection, treatment, and disposal practices in healthcare facilities. Appropriate waste segregation has been a legal requirement since 2005 and, therefore, enforceable by the Environment Agency. Recycling of paper, plastics, glass, aluminium and steel is estimated to save more than 18 million tonnes of CO₂ annually compared with using virgin materials. For further information on management and disposal of healthcare waste, please see [HTM 07-01](#)

Outcome: This actions in this sub-domain ensure pharmacy teams follow the waste hierarchy – eliminate, reduce, reuse, recycle or recover and dispose. This presents opportunities for cost savings, safer working practices and time saved handling waste.

Level 1:

Multiple bins for different waste streams are available in pharmacy settings and all bins are appropriately labelled for waste segregation.

Pharmacy staff should avoid contaminating recycling bins as it may render the whole bin unrecyclable. Use clear visual signage with images that reflect the waste streams to help pharmacy staff segregate waste for disposal – landfill, clinical waste, sharps, cytotoxic, recycling, confidential waste or compost.

Level 2:

Recycle or refill printer cartridges.

Recycling printer cartridges reduces the need for new cartridges to be manufactured, conserving valuable resources such as plastics, metals, and energy. Recycling helps reduce the amount of electronic waste (e-waste) and its associated environmental impact. Refilling printer cartridges is often cheaper than buying new ones. Refilling cartridges eliminates the need for packaging materials associated with new cartridges, reducing waste and environmental impact.

Reduce and recycle paper.

Paper recycling should take into account its content, which might be confidential. Reduce unnecessary printing and set default printing to double sided for all printers in pharmacy settings.
Eliminate avoidable single-use plastic.
E.g., cups, plates, cutleries, bottled drinks, bags or envelopes with plastic windows. Pharmacy staff should use refillable bottles, cups and reusable cutleries. Check with patients or carers whether they have oral syringes, measuring spoons or cups at home to accurately measure the correct dosage of liquid medications instead of issuing them automatically. Remove the plastic measures that come with packaged medications to store in pharmacy settings for future use after ensuring they are not designed for specific products only. See Tackling pharmacy's reliance on single-use plastic and Environmental Protection (Single-use Plastic Products) (Wales) Bill .
Pharmacy staff can remind customers to avoid flushing commonly sold items down the water sewage systems.
E.g., food waste, plastic bags, nappies, sanitary towels, tampons, cotton buds, condoms, bandages, plasters, baby or cleaning wipes and syringes.
Install mains-fed water coolers instead of bottle-fed water coolers in pharmacy settings.
Mains fed water coolers eliminate the need for single-use plastic bottles, which contribute to plastic pollution. Over the long term, mains fed water coolers are more cost-effective than single-use bottle coolers and there is no risk of running out of water. Mains fed water coolers have lower CO ₂ e as the production, transportation, and disposal of plastic bottles contribute to greenhouse gas emissions.
Upcycle or recycle any existing furniture or equipment in pharmacy settings.
E.g., Habitat for Humanity GB , reuse network
Use electronics with rechargeable batteries and avoid single-use ones.
This will save pharmacy businesses the cost of replacing batteries long-term and reduce e-waste. Pharmacy staff should be aware not to dispose of any batteries in general waste.

Level 3:

Although time consuming, conduct a waste audit to quantify the amount and types of waste from pharmacy settings and subsequently set a target for reduction of carbon hotspots. Alternatively, pharmacies have completed the pre-acceptance waste audit every five years.
The pre-acceptance healthcare waste self-audit tool is produced by Community Pharmacy England, with the support of the Environment Agency and The Co-operative Pharmacy. It sets out the pre-acceptance requirements for waste disposal related to pharmacy settings' provision of pharmaceutical services.

4.3. Procurement and Supply Chain

Many healthcare suppliers have recognised their corporate social responsibility to address climate change and environmental issues arising from the goods and services provided. With a global focus on sustainability, suppliers that do not have net zero ambitions or carbon reduction plans may face reputational risks and market disadvantages. For England, please see [Greener NHS Net Zero supplier roadmap](#).

Outcome: This domain introduces measures pharmacy teams can take to procure items sustainably. This can result in cost savings where businesses may be exempt from some taxes when purchasing energy-efficient technologies. It can also reduce extraction of natural resources, promote health and optimise treatments for patients.

Level 1:

Use recycled paper trademarked by the Forest Stewardship Council or Programme for the Endorsement of Forest Certification.

[FSC](#) and [PEFC](#) certifications ensure that the paper comes from forests managed in an environmentally responsible and sustainable manner. By choosing FSC or PEFC certified paper, you are supporting forest conservation efforts.

Pharmacy staff encourages patients to adopt a meat-free and plant-forward diet, which prevents and treats chronic diseases, as well as supports planetary health.

Catered events hosted by pharmacy staff should take this into consideration.

[The Eat Lancet Report](#) outlined the environmental limits of food production, stressing the need to reduce greenhouse gas emissions, land use, and water consumption associated with agriculture.

[Plant Based Healthcare Professionals](#) is a group founded by a UK Haematology Consultant dedicated to providing education and advocacy on whole food plant-based nutrition for prevention and treatment of chronic disease.

See: [CPPE Nutrition, medicines and myths: evolution of pharmacy practice](#)

Level 2:

Pharmacy staff purchases [Fairtrade](#)-certified tea, coffee and sugar for communal break rooms or displayed a poster explaining the benefits of buying Fairtrade.

Fairtrade ensures that producers, often in developing countries, receive fair wages and work in safe conditions. Fairtrade products are produced using environmentally sustainable practices which are typically traceable whilst not compromising on their qualities.

Cleaning products for use in pharmacy settings are eco-friendly or refillable.

Pharmacy staff are encouraged to bring their own lunch to work and avoid buying plastic-packaged food or be limited to food choices on sale that are not sustainable.

Preparing meals at home typically involves less single-use packaging and waste compared to takeout or restaurant dining. It also saves time traveling to a restaurant, waiting in lines, or waiting for food to be prepared.

Level 3:

Pharmacies have explored all options to procure from socially and environmentally responsible vendors.

All products have a life cycle from production to use and disposal, which is associated with greenhouse gas emissions and depletion of the world's finite natural resources. Shop fronts could stock more eco-friendly items for sale and reduce single-use items or environmentally damaging products.

Domain 5: Information and communications technology (ICT)

ICT infrastructure including data centres, servers, and network equipment consumes a significant amount of energy that generates greenhouse gas emissions to sustain ICT operations. Technological advancement also leads to generation of e-waste which can lead to environmental contamination and health risks. Climate change can disrupt ICT infrastructure through extreme weather events which affects delivery of patient care.

Outcome: This domain introduces measures pharmacy teams can take in their professional and personal lives to minimise the negative impact of ICT operations on the environment. It also suggests how digital technologies can be utilised to provide cost and time savings, improve operational and pharmacy staff efficiency.

Level 1:

Pharmacy settings have contingency plans for ICT infrastructure failure.

During extreme weather events where ICT infrastructures could fail, leading to pharmacy staff's inability to access electronic patient records, prescribing or dispensing systems, the pharmacy should have contingency plans to ensure business continuity.

Level 2:

Pharmacy staff reviews, deletes or avoids sending unnecessary emails and unsubscribed from unwelcomed electronic newsletters and marketing mailing lists.

Disorganised inboxes may result in pharmacy staff not receiving vital communications in a timely manner. One standard email = 4 g CO₂e; one email with attachments such as PDFs or links = 50 g CO₂e; One spam email = 0.3 g CO₂e

Set the default search engine on all computers in pharmacy settings to [Ecosia](#).

[Install](#) the search engine that plants trees for every search.

Delete unwanted files as they are stored in data processing centres with high-energy carbon footprints, including any files stored in the cloud or Microsoft OneDrive.
The storage and maintenance of digital data including online files and documents rely on data centres that require a substantial amount of electricity to power servers and cooling systems. Reducing the volume of unnecessary data can help lower energy consumption in data centres, decreasing the carbon footprint associated with data storage. Set files to auto-delete at the end of retention period.
Keep equipment free from obstructions and clean filters and fans to prevent overheating and possible failure, especially during heatwaves.
Many ICT devices such as computers, servers and networking equipment generate heat during operation. Proper airflow is essential to dissipate this heat and prevent overheating. Obstructed equipment can impede airflow, leading to higher operating temperatures and a greater risk of hardware failures. It can reduce the lifespan and reliability of ICT equipment leading to unexpected system crashes and downtime.
Implement circular devicing.
Buy remanufactured or refurbished devices or extend the lifetime of devices are some examples of this as recommended by Digital Net Zero . Concept Management provide free of charge Waste Electrical and Electronic Equipment Compliant computer disposals, IT asset disposal, and secure onsite data.

Level 3:

Invest in ICT infrastructure in pharmacy settings.
Upgrade hardware, software and Wi-Fi to reduce pharmacy staff's time spent on inefficient devices and increase pharmacy productivity. Invest in all-in-one equipment to allow the removal of multiple old equipment that uses more energy (e.g., multifunction printers to remove scanners, photocopiers, fax machines).
Pharmacy staff aims to meet the NHS's ambition to eliminate paper at the point of care and support its digital evolution.
A community pharmacy in Sheffield has succeeded in adopting a paperless dispensing system using TITAN PMR which saves printing 16,000 paper prescriptions monthly. Switch to digital records where possible to minimise paper audit trails. E.g., private prescription records, controlled drug registers, e-prescribing. Further resources: Community Pharmacy England Going paperless (IT) .
Utilise digital technologies, such as automated dispensing machines, to track and manage drug inventory levels, ensure optimal stock rotation and reduce the likelihood of medicine waste. Review reasons for overstocking and near-expiry checking practices.

Domain 6: Operations and strategy

Pharmacies should incorporate environmental sustainability into pharmacy staff's workplan, strategic and operating plans and budgets to reflect its commitment to net zero. It supports

the UK's transition to a greener economy by creating green jobs and upskilling pharmacy staff in quality improvement work.

Outcome: This domain puts policies and strategies in pharmacies to help the NHS achieve net zero and enhance community resilience to the impacts of climate change. When a pharmacy setting is clean, safe, caring and innovative, it also improves staff retention, morale and productivity. This may improve brand image and attract new customers or patients who are environmentally conscious.

Level 1:

Pharmacy has nominated a sustainability lead and recognises sustainability champions in pharmacy settings.
Sustainability leads or champions can be the responsible person for completing the toolkit and track their pharmacy setting's progress to attain Level 3 sustainability accreditation.
Pharmacy staff are aware of their role and involved in achieving their businesses' green plans collectively.
Pharmacy staff should feedback to their health boards or ICS in England on how to integrate environmental sustainability into pharmacy specific values and practices. Community pharmacy staff can encourage their board of directors to declare a climate emergency . See: West Yorkshire Health and Care Partnership Pharmacy and Medicines Optimisation Green Plan .

Level 2:

Environment sustainability is a standing agenda item for every pharmacy team meeting.
Pharmacy staff has joined or started a multidisciplinary sustainability task force in primary care to take action towards sustainable healthcare.
See how a pharmacist in Gloucestershire has collaborated with other primary care colleagues to undertake the Green Impact for Health scheme in GP practices.
Develop a climate change mitigation and adaptation plan for pharmacy.
Pharmacy has put in place adaptation action(s) to ensure their service and patients are protected and avoid unnecessary harm due to extreme weather conditions. E.g., Pharmacies located in flood risk zones should have adaptation plans for flooding and adequately insure the business against extreme weather events. Pharmacy staff should be allowed regular breaks, flexible uniform policies and easy access to drinking water to stay well during heatwaves. Pharmacy settings should also have a process for managing medicines during heatwaves, see managing temperature excursions by SPS.
Create green spaces in pharmacy settings.
Creating green spaces in workplaces can benefit mental health and wellbeing for staff and patients. Green spaces can promote local biodiversity and provide natural shading or insulation for

pharmacy settings. A green roof where plants grow can reduce the impact of urban heat islands, prevent flooding by reducing up to 50% of rainwater run-off and promote biodiversity.

See: [NHS Forest](#)

Level 3:

Pharmacy staff working towards net zero could be allowed time off from clinical work to perform these activities.

E.g., attend meetings or conduct audits. Currently, there are very few funded roles within pharmacy sector to undertake activities that contribute to achieving NHS's net zero ambitions.

Pharmacies are encouraged to take into account environmental, social and corporate governance issues when making investment decisions.

E.g., banking, pension or insurance. Rather than withdrawing from or avoiding certain companies or sectors, engage with them to encourage change and take part in shareholder activism by attending annual general meetings and voting on relevant issues.

Where possible, utilise marketplaces and redistribution platforms for unused medicines close to their expiry date, which also provide better matching of supply and demand.

Appendix 1

Pharmacy travel audit

A. For pharmacy staff and patient travel audits

Pharmacy's post code:

1. From which post code did you travel to our pharmacy today?

or How many miles in total did you travel to our pharmacy today?

Staff working in multiple sites or irregular, hybrid working patterns:

1. On average, how many days per week do you travel to work?

2. If you work on different sites regularly, please enter the post code of all the other sites, and how many days per week you travel to them:

2. What is the mode of transport you used to travel to our pharmacy today?

- Walking
- Cycling
- Motorbike
 - **Size of motorbike:** Small Medium Large Average
- Car
 - **Size of car:** Small Medium Large Average
 - **Fuel:** Diesel Petrol Hybrid Plug-in hybrid electric Battery electric Compressed natural gas (CNG) Liquefied petroleum gas (LPG)
 - **Did you car-share with anyone?** Yes (How many in a car? ___) No
- Train
- Bus

Days	Total miles travelled (miles/km)	Purpose
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		