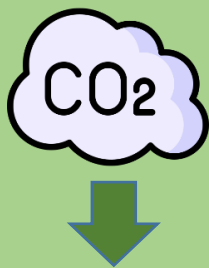


National Green Theatres Programme

Prògram Nàiseanta Lannsaireachd Uaine

Reducing the Unnecessary Use of Non-Sterile Gloves

October 2024



1,591
T CO₂e



£2.5 Million

**Cost
Reduction**

1. Description of action

- 1.1 Non-sterile gloves are used in healthcare as Personal Protective Equipment (PPE) when delivering direct patient care and cleaning in the clinical environment. During the COVID pandemic the use of gloves increased and has not yet returned to pre-pandemic levels, suggesting a change in the practice of non-sterile glove use.
- 1.2 Overuse of non-sterile gloves can increase transmission of pathogens¹, cross contamination, and lead to a reduction in hand washing. In addition, non-sterile gloves are single use and largely discarded of in the clinical waste stream.
- 1.3 This action aims to reduce the unnecessary use of non-sterile gloves across NHS Scotland within theatres, wards, outpatients and all other clinical environments. This will result in better outcomes for the environment, staff and patients.

2. Background

- 2.1 There is consensus in the literature that non-sterile examination gloves must be worn when applying Standard Infection Control Precautions (SICPs), i.e. where there is potential contact with blood and bodily fluids that may occur during direct or indirect patient contact, and when performing non-sterile procedures.

Non-sterile gloves should be worn based on an assessment of the risk of contact with:

- Blood, body fluids (including but not limited to secretions and/or excretions), non-intact skin, mucous membranes, lesions and/or vesicles.
- Hazardous drugs and chemicals, e.g. cleaning agents: Where such a risk exists, gloves should be worn to protect the healthcare worker and/or the patient.

Gloves should not be worn as a substitute to hand hygiene.

When should gloves be changed or removed?

- Gloves are a single-use item and should be changed immediately after each use or upon completion of a task.
- Gloves should be changed after patient contact and therefore must be changed between patients.
- Gloves may need to be changed after the completion of a single aspect of patient care.

Prior to the pandemic, approximately 5 million gloves (single glove) were bought on a weekly basis within NHS Scotland. During the pandemic, extra precautions resulted in use doubling to 10 million. A recent study showed that gloves accounted for 45% of the total carbon footprint of PPE distributed during the first six months of the pandemic. Current use stays 20%² above pre-pandemic levels at 6 million gloves ordered per week.

¹ Lindberg M, Skytt B, Lindberg M. Continued wearing of gloves: a risk behaviour in patient care. *Infect Prev Pract*. 2020 Sep 17;2(4):100091. doi: 10.1016/j.infpip.2020.100091. PMID: 34368725; PMCID: PMC8336026.

² National Procurement Data provided by NHS National Services Scotland

3. Who needs to be involved in this change locally?

- Health Board communications teams
- Local managers with procurement responsibilities
- Local infection control teams
- Clinical staff
- Domestic, estates and facilities staff

4. Boundaries

4.1 The table below identifies the boundaries for this action:

In scope	Out of scope
<ul style="list-style-type: none">• Disposable non-sterile glove use which is considered unnecessary when adhering to the relevant guidance.• Non-sterile gloves.• Secondary care settings.	<ul style="list-style-type: none">• Non-sterile gloves use which is necessary for the task being undertaken.• Sterile gloves.• Primary care.

5. What is the change and how will it be implemented?

5.1 A working group was formed as part of the NHS Scotland Sustainability Action Programme including:

- ARHAI Scotland
- NHS Scotland Assure
- NHS National Services Scotland
- NHS Education for Scotland
- National Green Theatres Programme (Centre for Sustainable Delivery)
- Scottish Government

5.2 The group developed and endorsed the 'Be #GloveAware' campaign toolkit to support Boards to reduce unnecessary glove use. The toolkit has been distributed to Health Board Communications Teams. It shares clear guidance, messaging and materials to support Board colleagues to promote the campaign and encourage behaviour change by introducing a Once for Scotland campaign approach with consistent messaging and materials which can be displayed in workspaces³. Examples of the materials produced are available in [Appendix A](#).

³ Further information is available at: [Be glove aware to protect our people and our planet - NHS Sustainability Action : NHS Sustainability Action](#)

- 5.4 Local Green Theatre teams should consider reinforcing the message during induction of new staff members and encourage educational training is up to date on the correct use of Gloves.

A module is available on the TURAS learning platform to help staff to correctly choose, safely use and discard PPE at the appropriate times⁴.

6. What are the potential co-benefits of this change?

- 6.1 Data from National Procurement has identified that currently NHS Scotland use 312 million examination gloves per annum with a total spend of £13.7m.

Previous case studies with targeted education in correct use of non-sterile gloves have reported reductions in use from 18-55%⁵. If NHS Scotland were able to reduce overuse by 18%, this reduction would provide:

Outcome	Potential Benefits
Carbon Savings	1,591 tonnes CO ₂ e ⁶
Cost Savings	£2.5million
Staff experience	Reduction in contact dermatitis ⁷ , time saved
Patient experience	Reduced risk cross contamination, improved patient experience

7. Risks and Issues

- 7.1 As part of the development of this action there have been 2 risks identified to date, outlined below:

Description of risk or issue	Mitigation / Action Plan
Gloves are not used when guidance states they should be	Hand hygiene audit, education and signposting to relevant guidance.
Increased infection	ARHAI are engaged and supportive of the campaign and will alert to any unusual spikes in HAI.

⁴ Module available here: [Personal protective equipment | Turas | Learn \(nhs.scot\)](#)

⁵ [NHS England » 'The gloves are off' campaign](#)

⁶ [Environmental impact of personal protective equipment distributed for use by health and social care services in England in the first six months of the COVID-19 pandemic \(sagepub.com\)](#)

⁷ [Iijima S, Numata M, Sasaki K. \[ALLERGIC CONTACT DERMATITIS DUE TO NITRILE RUBBER GLOVES: ETHYL ISOTHIOCYANATE AND BUTYL ISOTHIOCYANATE AS POSSIBLE CAUSATIVE CHEMICALS\]. Arerugi. 2020;69\(8\):669-677. Japanese. doi: 10.15036/arerugi.69.669. PMID: 32963190.](#)

8. Implementation Guidance

- 8.1 The opportunity for change highlights the importance of implementing this action. This change will help your site and NHS Scotland achieve net-zero emissions by 2040 as stated in NHS Scotland's Climate Emergency and Sustainability Strategy 2022-2026.
- 8.2 Below the National Green Theatres Programme has provided guidance on how you can implement this change within your area. If you require any further information or guidance, please contact the National Green Theatres programme team on: cfsdgreentheatres@gjnh.scot.nhs.uk

Local Sustainability or Green Theatre Group:	
1.	Review opportunity for change and validate what this means locally.
2.	Work with National Green Theatres Programme Team to validate opportunity for improvements (see below section)
3.	Convene a discussion with the staff who need to implement it and those who are impacted by the action.
4.	Understand what the opportunity is for implementing the action locally: work already undertaken and challenges.
5.	Agree a local implementation plan. Liaise with broader sustainability team in your hospital and discuss how they are championing in other work areas.
6.	Implement local plan.
7.	Connect with National Green Theatres Programme concerning measurement (see below section)
8.	Work with National Green Theatres Programme to monitor implementation of action and improvements made.

9. Measurement

- 9.1 Measurement will be undertaken with data provided directly from National Procurement to the National Green Theatres Programme measurement team using occupied bed days as a surrogate for Health board activity levels. This information will be fed back during measurement and validation meetings with health boards. Local teams should be aware of the processes for feedback from hand hygiene audits and hospital acquired infections and highlight any concerns should they arise.

Appendix A – Example of Gloves Off - Campaign graphics



**SUSTAINABILITY
ACTION**
Our NHS | Our People | Our Planet

**Reducing unnecessary
glove use can help us
lower our carbon
footprint**

NHS
SCOTLAND



**SUSTAINABILITY
ACTION**
Our NHS | Our People | Our Planet

**When gloves aren't
needed, good hand
hygiene is the best way
to protect you and your
patients**

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SUSTAINABILITY **ACTION**

Our NHS | Our People | Our Planet

**Together we can
protect patients,
staff and our planet**

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