



PLASTIC REDUCTION AND THE WASTE HIERARCHY IN HEALTHCARE

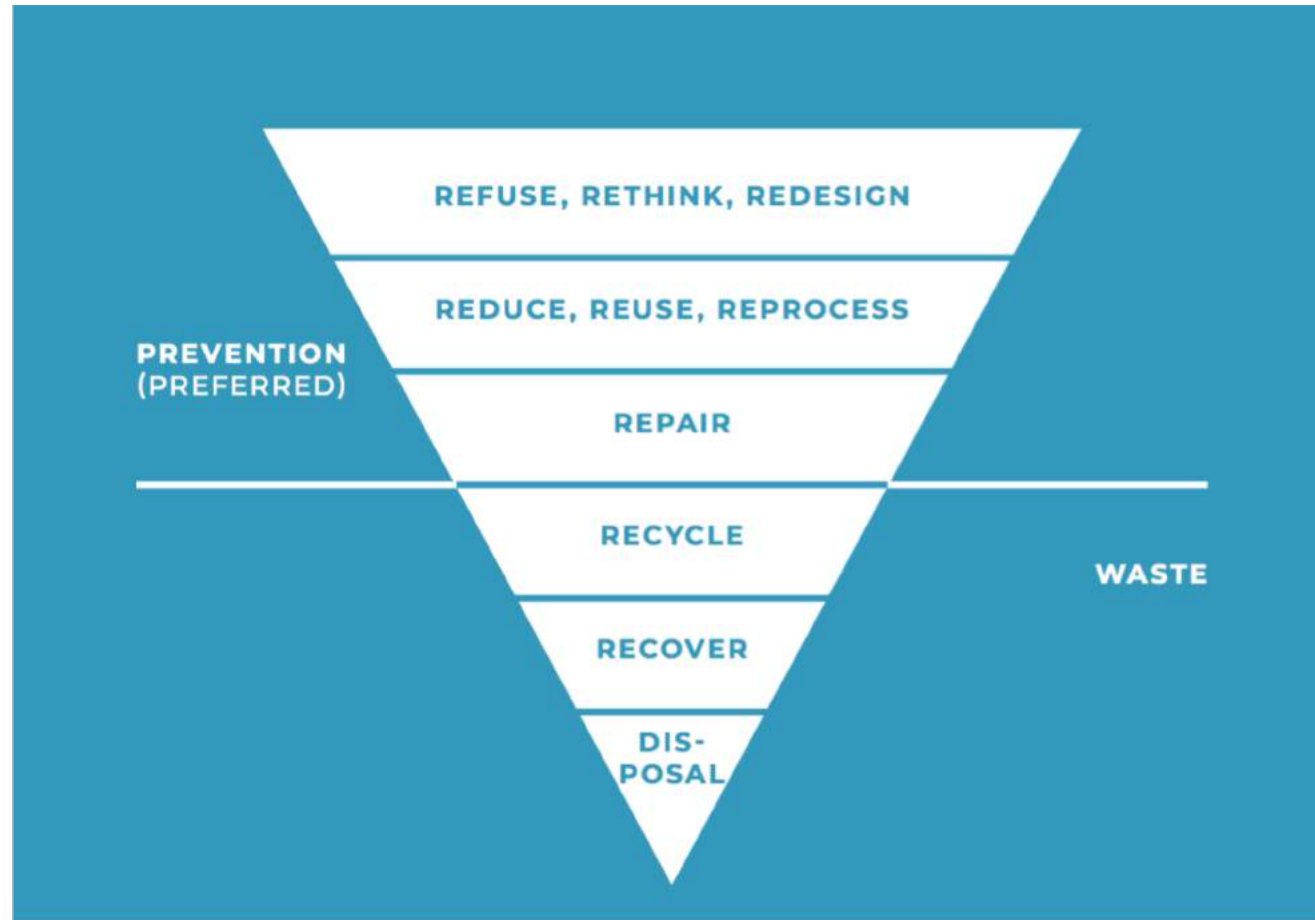
ABOUT US

We are a network of thousands of hospitals, healthcare leaders, and healthcare professionals, with members across Europe and partners across the globe.

Together we prove that it's possible to deliver the highest quality of care in a way that's sustainable environmentally and financially.



THE WASTE HIERARCHY



THE IMPACT OF PLASTICS

“PLASTIC PRODUCTION IS PROJECTED TO DOUBLE IN THE NEXT 20 YEARS AND TRIPLE BY 2060”

- Plastic is closely linked with the fossil fuel industry
- Negatively affects human health
- Most plastic is not recycled => Incineration/waste-to-energy, landfilling



WHY RECYCLING WON'T SOLVE THE PROBLEM

Less than 10% of all plastic ever produced has been recycled

Recycling

- Insufficient capacity
- Downcycling, losing quality (infinite recycling is impossible)
- Low cost of virgin materials
- (Illegal) [waste shipments](#), no transparency
- Toxic chemicals



A healthcare worker in a clinical setting, wearing a surgical cap, mask, and gloves, is shown in profile. The image has a blue overlay. The text "APPLYING THE WASTE HIERARCHY IN HEALTHCARE" is overlaid in white, bold, sans-serif font.

APPLYING THE WASTE HIERARCHY IN HEALTHCARE

APPLYING THE WASTE HIERARCHY



Replace (products containing harmful chemicals):

Does the item contain harmful chemicals? Can it be replaced with a toxic-free alternative? [Check [European healthcare's phase out list for chemicals of concern](#)]

Refuse: Is this item truly needed?

Reduce: Is it sometimes used unnecessarily; can its use be reduced?

Reuse, repair, reprocess: Are durable, reusable and non-toxic alternatives available? Can the item be reprocessed?

Recycle: Can this item be recycled locally? Does the recycled item provide any value?

PROBLEMATIC CHEMICALS IN PLASTICS

- Patients are exposed to endocrine disrupting chemicals (e.g. phthalates, bisphenols) through medical plastics.
- Infants (especially premature babies) and children are particularly vulnerable.
- Recent study shows that [newborns in intensive care exposed to phthalate DEHP above tolerable daily intake](#)



REPLACING TOXIC PRODUCTS

- EU Chemicals Restriction Roadmap – have to make sure that healthcare is not exempted
- Many hospitals in Europe (especially in Nordic countries) are phasing down PVC with great success. For example, there are alternatives for:
 - Gloves
 - Tubings
 - IV bags
 - Packaging
 - Flooring: « There are a range of technically and economically feasible alternative materials and plastics for commercial and residential uses in flooring, this includes alternative flooring in healthcare settings. »
- Importance for healthcare organisations to ask for the same things (more leverage, lower price)
- Key moment to look at phase out instead of recycling

[HCWH position paper on PVC](#)

[A step forward in phasing-out harmful chemicals: The role of healthcare](#)

REFUSE & REDUCE

CAN PLASTIC USE BE AVOIDED IN THE FIRST PLACE?

- Reducing unnecessary items in custom packs
- Closely monitoring practices to optimize and ensure that no unnecessary waste is created
- Improve packaging to minimize waste (e.g. gloves, wipes falling on the ground)
- Reducing unnecessary use of gloves



GLOVES OFF CAMPAIGN (GREAT ORMOND STREET HOSPITAL, UK)



- Annual use of gloves reduced by 4.3 million
- Waste reduced by 21 tonnes per year
- Financial savings of approx. €119,000 after one year

Achieved by educating staff on:

- When gloves are needed and when not
- Good hand hygiene practices

<https://www.gosh.nhs.uk/news/gloves-are-off/>

REUSE, REPAIR, REPROCESS

Reuse

- Lower footprint
- Improving resilience
- Potential cost reduction

In practice:

- Textiles e.g. reusable gowns
- Laryngoscopes
- Sterilisation containers instead of blue wrap (blue wrap can represent approx. 19% of waste in Operation Rooms)
- Scissors
- Non-medical items (food contact materials, medication cups, nappies, etc.)



RAISING AWARENESS ON REUSE

Within the facility



Within the community

Educating new parents on how to store breast milk and infant food using glass instead of plastic containers.

RECYCLING

BEFORE CONSIDERING RECYCLING, IT IS IMPORTANT TO ENSURE THAT:

- Local waste collection providers accept plastics recycling waste streams.
- Plastics do not contain hazardous chemicals that disqualify them from recycling.
- There is demand for the recycled material.
- Waste is properly segregated.
- The plastic waste is recycled domestically.



MEASURING AND REDUCING PLASTICS IN THE HEALTHCARE SECTOR

[Link to publication](#)



What does it contain?

- Plastic's environmental and health impact
- Overview of plastics in healthcare
- Problematic chemicals in medical plastics
- Toolkit on reducing plastics
- Plastic waste audit methodology
- Case studies and best practices

Available in English, Spanish, and French

[Project website](#) (for more resources on plastics)

[Best practice list on plastic reduction](#)



NO HARM

CONTACT

Andreea Zotince
Circular Healthcare Project Officer
Andreea.zotinca@hcwh.org

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