

Title

Green products and behavior: fluid collection in a sustainable way

Problem statement

Healthcare contributes for 7-8% to the national CO₂ footprint. Part of this is due to a large amount of waste from disposable materials in the hospital. Multiple studies have shown that most disposable products have a greater environmental impact compared to reusables. To reduce this environmental impact, it is necessary to gain knowledge about the environmental impact of products and services, to be able to make an environmentally sound choice.

In the hospital cellulose pads are used in various departments. These are used to absorb moisture, blood and fluids. Previous research has shown that the obstetrics department is the major user of cellulose pads and that reduction of use is possible in various areas. The cellulose pad seems to be a choice with a great environmental impact, since it is used once and since it consists of different materials. The use of these different materials might influence the environmental impact of the production phase (expected to be greater) and it makes it difficult to recycle in a proper way. The same research has shown there are alternatives available on the market (e.g. reusable (washable), compostable and biobased). Unfortunately, there is no literature available to answer the question which option is best from an environmental perspective. Before we switch to an alternative, we would like to know what the most sustainable choice is to reduce our environmental impact.

Research question(s)

How can we reduce the environmental impact of pads/mats used to absorb moisture, blood and fluids in the hospital?

- What is the environmental impact of the disposable cellulose pad vs. alternatives?
- How can the use of these pads/mats be reduced?
- (How is the comfort of the sustainable alternative for the patient?)



Expected type of work

Life cycle assessment, material flow analysis.

References

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Commissioner details

Organization / Department: Gynaecology/Obstetrics LUMC

Name: Kim van Nieuwenhuizen, Joanne Verweij, Claar Lap, Evelyn Verheijen, Suzanne van Engelen

Email: k.e.van_nieuwenhuizen@lumc.nl, e.j.t.verweij@lumc.nl, c.c.m.m.lap@lumc.nl, evver50@hotmail.com, s.j.p.m.van_engelen@lumc.nl