

Title

How can we measure sustainable impact in the Intensive Care Unit? Development of the ICU green calculator

Problem statement

The Intensive Care (IC) is one of the most polluting departments of a hospital. In the name of patient safety and hygiene measures, many materials are packaged and/or wrapped. Both packages and materials and instruments are frequently disposable, creating a lot of waste. The Green IC ('de Groene IC') network in the Netherlands was started by medical professionals working at IC units (ICUs), such as intensivists and IC nurses. Their aim is to make ICUs sustainable. To do this several sustainable interventions have been developed. The network wants to make these interventions available to all ICUs in the Netherlands. Therefore, it is about to launch its website with sustainable interventions. However, the Green IC does not have specific information about the environmental impact of these interventions. Information about the impact is needed to create awareness amongst IC staff and hospital boards. Furthermore, it can serve as a "green calculator" that ICUs can use to calculate their impact and compare this with other ICUs.

Research question(s)

- What is the environmental impact (CO2 footprint) of specific ICU interventions?
- Is it possible to develop a green calculator that can be used by ICUs to measure, show and track their environmental impact? Examples are: gloves, gowns, infusion bags etc.

Expected type of work

Life cycle assessment and use of existing data in combination with interviews.

References

- the barometer from the green OR network (de groene OK; expected to be available in the course of 2022/2023 <https://degroeneok.nl/over-ons/over-de-groene-ok/>)
- the website from de groene IC: <https://degroeneic.nl/>
- <https://www.milieubarometer.nl/voorbeelden/ziekenhuis/>
- <https://www.nvic.nl/landelijk-netwerk-de-groene-ic/>

Commissioner details

Organization / Department: Erasmus MC Rotterdam, Intensive Care / Groene IC netwerk NVIC

Name: Nicole Hunfeld

Email: n.hunfeld@erasmusmc.nl