Towards sustainable devices in healthcare

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Executive summary

Health Council of the Netherlands

In line with European climate targets, the Dutch government has set itself strict goals in the areas of sustainability and circularity. This will require a transition supported by all sectors. The healthcare sector is responsible for a substantial part of national CO_2 emissions, consumes scarce resources, and produces waste on a large scale. Improving sustainability still presents a huge challenge, particularly when it comes to medical devices and personal protective equipment. The Minister for Medical Care and Sport has therefore asked the Health Council of the Netherlands to provide insight into the obstacles to the more sustainable use of medical devices and personal protective equipment in healthcare (referred to in the rest of this report as devices). The Minister has also asked how sustainability improvements and the sustainable use of devices in healthcare institutions can be accelerated. To answer these questions, the Council set up the Medical Devices Sustainability Committee. In this report, the Committee understands 'sustainability improvements' to mean lowering environmental impact by reducing CO_2 emissions, the use of water, resources and land, and pollution.

More and more devices, with more and more single-use products

Population ageing and expanding medical treatment options are leading to a growing demand for healthcare in the Netherlands. The result is an increase in the use of devices such as gloves, wound management supplies, surgical instruments, medical equipment, diagnostic tests and implants. Healthcare provision is reliant on these products. Over the past few decades, there has been a shift from reusable devices to single-use devices. This includes advanced instruments such as surgical staplers. Overuse and a lack of emphasis on repairs (to equipment) and the reuse of components or materials are also commonplace. This behaviour stems from assumptions about the safety (hygiene), ease of use (efficiency) and costs of single-use devices.

Sustainable care initiatives are difficult to get off the ground

Recent years have seen a growing awareness that healthcare and the use of devices can and must become more sustainable, as improvements in this area benefit the environment and ultimately public health. The government still largely leaves the sustainability of devices to the market, and measures are voluntary. Current initiatives to improve sustainability come primarily from healthcare employees in the workplace, who identify opportunities for a more sustainable approach. Due to a number of different factors, these initiatives generally remain small scale. For example, initiators are hindered by a lack of

support from the healthcare institution (in the form of funding, manpower and knowledge) and dependence on other parties in the healthcare supply chain. Existing procedures and protocols also play a role, as well as a lack of backing and sense of urgency.

Take sustainability into account as an explicit value in healthcare

Healthcare is geared towards the provision of 'good care' to the individual patient. The key values of good care are enshrined in laws and regulations, and include safety, efficiency, effectiveness and client focus.

Little consideration is given to environmental impact in healthcare decision-making.

The Committee notes that the absence of sustainability as an explicit value within the current frameworks is an obstacle to more sustainable device use. The Committee believes that there is every reason to take sustainability into account as an explicit value and to enshrine this value in law, for example by including it as an explicit element of 'good care' in the Healthcare Quality, Complaints and Disputes Act (*Wet kwaliteit, klachten en geschillen zorg*, Wkkgz). Policymakers, healthcare institutions and healthcare employees will then be prompted to consider sustainability in their decisions and to look for ways of providing good care that is also sustainable. As a medical decision-making tool, the Committee has identified the need to develop an assessment framework that takes sustainability into consideration alongside existing values of good care. On top of this, healthcare institutions themselves must take action, for instance by including sustainability in their strategic vision, medical guidelines, procurement policy and healthcare staff training, and by adopting a conscious approach to devices in practice.

Changes needed in design, production, use and waste processing

The healthcare sector cannot make devices more sustainable on its own. Achieving this will require a transition from a linear to a circular economy, which involves changes throughout the chain of design, production, use and waste stages. The available sustainable devices are currently very limited. Manufacturers have a responsibility to work towards sustainable innovation and business models. At the same time, healthcare institutions can create demand for sustainable products through their procurement activities, thereby influencing supply. In order to extend the use stage, a stronger focus is required on aspects such as the reuse, repair and refurbishing of equipment. Closer attention needs to be paid in the waste stage to the reuse and recycling of components or materials. Not many companies are doing this yet. The Committee believes that the transition calls for the promotion of innovation, knowledge development and exchange, new business models and the reorganisation of facilities and logistics in healthcare institutions. Government policy establishes a foundation for a circular economy, however sufficient attention is not yet being paid to the healthcare and devices sectors. The Committee advocates greater interministerial collaboration to develop policy

and set sustainability goals for the transition to circular device use in healthcare. In addition, the Committee recommends encouraging innovation by more effectively combining knowledge from relevant public and private sectors. Examples include universities, healthcare institutions, research institutes, medical technology companies and waste processors.

A compulsory approach through law

The Committee believes that policy alone is not enough to achieve sufficient progress in making devices more sustainable: a more compulsory approach enshrined in law is needed. There are a number of possible solutions at both European and national level. One solution is to incorporate sustainability into laws and regulations that specifically apply to devices, for example by imposing sustainability requirements on the composition of a device and by holding manufacturers that market single-use devices accountable. It is also important to ensure that general regulations that encourage sustainability also apply to the devices sector. At present, that is not sufficiently the case. Possible measures include greater responsibility on the part of manufacturers and guidelines for ecodesign. The Committee recommends that the Netherlands take on a leading role in enshrining sustainability requirements for devices in European legislation.

Advice

The Committee considers state intervention to be urgently needed in order to make the use of medical devices and personal protective equipment in the healthcare sector more sustainable. This requires fundamental changes and measures that have an impact not only on device use, but also on the healthcare sector as a whole.

In summary, the Committee's recommendations are as follows:

- Make sustainability an explicit value of good care and develop an assessment framework for this purpose.
- Embed sustainability throughout the organisational structure of healthcare institutions.
- Ensure that sustainability is taken into account in medical guidelines, standards and insured care.
- Develop an interministerial policy agenda for making devices more sustainable.
- Draw up legal requirements in relation to sustainability.
- Focus on innovation of products and services for reuse, reprocessing and waste processing to accelerate the transition process.
- Facilitate research into sustainable products and processes and monitor the environmental impact.

The Health Council of the Netherlands, established in 1902, is an independent scientific advisory body. Its remit is “to advise the government and Parliament on the current level of knowledge with respect to public health issues and health (services) research...” (Section 22, Health Act).
The Health Council receives most requests for advice from the Ministers of Health, Welfare and Sport, Infrastructure and Water Management, Social Affairs and Employment, and Agriculture, Nature and Food Quality. The Council can publish advisory reports on its own initiative. It usually does this in order to ask attention for developments or trends that are thought to be relevant to government policy.
Most Health Council reports are prepared by multidisciplinary committees of Dutch or, sometimes, foreign experts, appointed in a personal capacity.
The reports are available to the public.

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