

Too much waste due to the disposable culture in hospitals?

In 2014, the East-Limburg Hospital ('Ziekenhuis Oost-Limburg' or 'ZOL') produced around 873 tons of non-hazardous medical waste (NHMW) and 226 tons of hazardous medical waste (HMW). Medical waste cannot be re-used due the risk of contamination, so over 1000 tons of waste goes through the incinerator every year from the ZOL alone. Hazardous medical waste is incinerated in a special rotary kiln incinerator to guarantee full destruction of the contaminants (infectious particles). However, incineration is not the most environmentally-friendly and least of all the cheapest solution for waste treatment. The cost of waste management is weighing increasingly heavily on Flemish hospitals. Dominic Hermans, Department head for prevention and the environment and simultaneously environment coordinator for the ZOL, explains why it is so difficult to implement change there.



Autoclaving in the way that is currently being suggested, may not be the ideal solution, but it is acting as a catalyst for other ideas. By doing that we are actually just going to convert our waste into another type of waste and to me that seems to be a pointless interim step. I think that we need to look further and find the added value in waste.

Naturally a lot depends on your staff, you can make the sorting guidelines as environmentally-friendly as you like, but they also have to carry it out. Is it working?

"We are only as good as our weakest link. The ZOL is almost the biggest employer in Limburg; every member of staff from an intern to a surgeon has to respect the waste streams. All it takes is for a couple of people to ignore the rules and our waste stream is no longer pure. Sometimes people make mistakes in spite of all of their good intentions or as a result of ignorance. That is why there are a lot of training sessions, awareness campaigns and even our own internal waste checks!

And it doesn't end with the education of our own staff. On a week day, around 2150 patients come through the ZOL's doors and that isn't even counting the visitors, contractors and third parties. It would be impossible to give everyone who walks through here a quick lesson on waste sorting. Our staff are aware of the particular risks, but we can't expect that from our visitors and patients. In some hospitals PMD waste is not even separated, because patients and visitors don't sort it correctly and so the waste stream becomes contaminated. Even though people are aware of the different waste streams, you shouldn't underestimate people's general frame of mind when they are in a hospital. People are having to deal with all sorts of emotions when they are here. The joy of a child that has just been born, worry in the waiting room, dismay from bad news, loneliness, relief... and of course people are also experiencing varying degrees of pain. It is more than understandable that at times like these sorting waste is not a priority.

The ZOL constantly tries to raise awareness. As well as following the hierarchical line, the usual training and awareness actions, we also apply a bit of healthy pressure. We randomly check waste receptacles and when we notice that a department is consistently getting it wrong, that is discussed through the supervisor and adjusted via the committee for prevention and protection at work. That is the monthly social dialogue at which the employer, employee organisations and trade unions are present.

Good waste management contributes to every aspect of making the world a better place. And an objective like that is perfectly suited to a care institution.

Why is it that hospitals produce so much waste?

"In hospitals an almost unavoidable disposable culture reigns. That is primarily linked to hygiene. It isn't possible to re-use everything due to the risk of infection. A patient doesn't want to be told that he has an infection because recycled materials were used.

Flemish hospitals are already working hard to overcome the disposable culture. Operating theatres are equipped with a special lift that goes directly to the central sterilisation autoclaves that sterilise the equipment used during an operation. But it is only worth recycling one portion of the equipment used. Sterilising equipment is in fact very complex, labour intensive and consequently also quite expensive. It is therefore only beneficial for more expensive instruments. Disposables however are part and parcel of the job: for example a needle will not be cleaned and re-used: that is pure medical waste. Because the cleaning and sterilisation cost is so high, people are moving increasingly towards single-use equipment. If we look at it purely from the perspective of environmental policy, we are taking a step backwards.

Moreover, the care sector produces more waste than just medical waste. In 2014 around 163 tons of paper and cardboard was produced in the ZOL. For example people bring a lot of newspapers and magazines with them. That increases the height of the waste mountain. From an economic perspective, ZOL already digitizes as much as possible, but we can't exactly give all of our patients and visitors a tablet and prohibit paper reading materials. Another example is the problem of separating waste: making visitors observe the correct waste streams is difficult...

However, in the ZOL people are being made more aware in that respect than they were 10 years ago and we are already reaping the benefits. The waste fractions (waste streams) are much better sorted now. That is also noticeable during our own internal waste checks. Twenty years ago all waste went into one bag and just look at how far we've come now!

Moreover, Flanders is doing very well. To start with, we have very good quality waste treatment here. From a study conducted by OVAM it appears that in Flanders we also have very pure fractions, which means that we sort meticulously. Flanders also has strict standards regarding emissions and in that area we score better than our neighbouring countries and in comparison to Wallonia."

Do you think that other alternatives could still come onto the market to solve the waste problem?

"A study was carried out into converting HMW to NHMW on a hospital's own site. That has an organisational advantage, but also comes with unexpected costs. This kind of installation has to be licensed and installed etc. ...and what about the running and maintenance costs? Also operators have to be trained and the installation has to be monitored. All of those factors have to be considered as part of a CBA study (cost-benefit analysis) and taken into account in order to judge whether a project like that is feasible and economically beneficial.

Within the care sector however there is a sort of vicious circle. Due to the hesitant nature of the stakeholders there is no market. And for as long as there is no market, the price of an installation of that kind will remain high. Compare it with the electric car that is only gradually breaking through in Belgium. Waste treatment is not a care institution's main task, which is why creating a market for it here is not evident.

But note that we welcome waste-treatment-related innovation. It is thanks to these kinds of initiatives that we continue to innovate. One great example is the construction sector: when a building is demolished, the rubble is re-used as a secondary raw material for new projects, for example a recycled bench. This is called LCA (life cycle analysis). I hope that in the care sector we will also be able to develop these kinds of initiatives and thus save the environment and reduce costs. It is after all a great shame to simply incinerate all of those valuable materials.

