

Environmental hazards of pharmaceuticals

Increasing amounts of pharmaceuticals are being found in the aquatic environment, threatening the ecosystem and human health. Countermeasures are urgently needed, experts say, including better treatment of pharmaceutical waste and new EU wide legislation.

A glass of fresh water from the tap: a cocktail of estrogens, lipid lowering substances, pain-killers and anti-epilepsy-drugs. A threatening vision which fortunately has not yet come true. However, considerable amounts of pharmaceuticals can already be found in the aquatic environment. Environmental and health impacts of pharmaceutical residues in the ecosystem are one of the main topics at the first European Congress on Sustainable Products and Practices in Healthcare "CleanMed Europe" (www.cleanmed.org) in Vienna from October 6-8, 2004. The congress is organized by the Viennese Institute for Sustainable Healthcare in partnership with the Vienna Hospital Association and the International Organisation Health Care Without Harm (www.noharm.org).

"It is still possible to get control of the situation and avoid serious damages, but we have to act immediately and among other things expand our highly efficient sewage treatment", says Thomas Jakl, Director, Chemicals Policy Unit at the Austrian Ministry for the Environment. Ake Wennmalm, environmental director at the Stockholm County Council, also emphasizes the urgent need for action as many scientific studies indicate multiple environmental hazards through pharmaceuticals.

The new EU legislation considers the environmental effects of pharmaceuticals, still missing are detailed application rules. Environmental data – for example, facts pertaining to biodegradability - should be part of the EU wide drug registration procedure. Labelling of environmental impacts of pharmaceuticals is currently being discussed. Jan Koschorreck from the German Federal Environment Agency will report about the latest developments in this area at the CleanMed Europe Congress.

Another important area is the avoidance of drug residues in the environment. This can be achieved, in part, through a much more critical and careful use of drug prescriptions by healthcare providers. For example, most experts have determined that broad-spectrum antibiotics are prescribed far too often. This not only causes environmental harm but also leads to multi-resistant bacteria, thus making effective treatment impossible in case of infection.

The problem of drug residues in the environment affects all industrialized countries. This can quickly negate the positive effects such drugs have in the treatment of diseases. The active substances in these medications are extremely stable. Therefore, they leave the human body virtually unchanged, passing easily through water treatment plants and staying in the aquatic environment for an exceptionally long time.