Environmental aspects of different methods of administration of pharmaceuticals

Doctors and pharmacists can take environmental aspects into account when prescribing or recommending the method of administration of a pharmaceutical. The methods of administration and their different dosages influence how much pharmaceutical substances are released into the environment.

oral local parenteral METHOD OF ADMINISTRATION soft and hard capsule tablet ointment / cream / paste / gel liquid drops / spray effervescent tablet lozenge infusion injection suppository transdermal patch inhaler powder / granules syrup / juice / solution sometimes higher dosages are required compared ENVIRONMENTAL ASPECTS to oral and parenteral forms in some cases higher dosages are required compared to parenteral forms active substances from ointments etc. are partly lower dosage possible for infusions and injections released unchanged in large quantities into the environment active substances are partially metabolised instructions for use can minimise discharge into the active substances are partially metabolised residues of liquid medicines are often disposed of environment* incorrectly greenhouse gases in inhalers with high

More information on pharmaceuticals and the environment: uba.de/pharmaceuticals CC-BY 4.0 German Environment Agency, Ecologic Institute 2023

* After applying ointments etc., hands should first be wiped with a paper towel before being washed. The paper towel should be disposed of in the domestic waste.

global warming potential