Dosage forms

*According to the assumed possibilities that the pharmaceutical form could mean for increasing the effect and safety of the treatment, we distinguish **3 generations of pharmaceutical forms**.*

Pharmaceutical forms of the 1st generation

They represent the majority of current drugs on the pharmaceutical market. It is characteristic of them that the profile of plasma concentrations over time is influenced only by pharmacokinetic processes (absorption, distribution and elimination). The dosage form itself will release all the medicine contained in it very quickly.

Pharmaceutical forms of the 2nd generation with controlled extended (retarded) release

In addition to pharmacokinetic processes (absorption, distribution and elimination), the profile of plasma concentrations achieved is also influenced by the properties of the dosage form. The main advantage is the possibility of slowly releasing the drug at a constant rate, which makes it possible to maintain stable plasma concentrations for a certain period of time. These dosage forms can also be modified so that they release the initial (load) dose immediately after administration. Examples are oral delayed-release dosage forms (e.g. Nitro-Mack) or patches on the skin (so-called transdermal therapeutic systems – TTS).

Dosage forms of the 3rd generation with targeted distribution

Their task is to carry the molecule of the active substance by the shortest route into the target tissue to the receptors. The active substance does not come into contact with tissues that could have a toxic effect (e.g. liposomal preparations used for cancer therapy).

Links

Related articles

References

LINCOVÁ, Dagmar. *Základní a aplikovaná farmakologie.* - edition. Galén, 2007. pp. 672. ISBN 9788072623730.