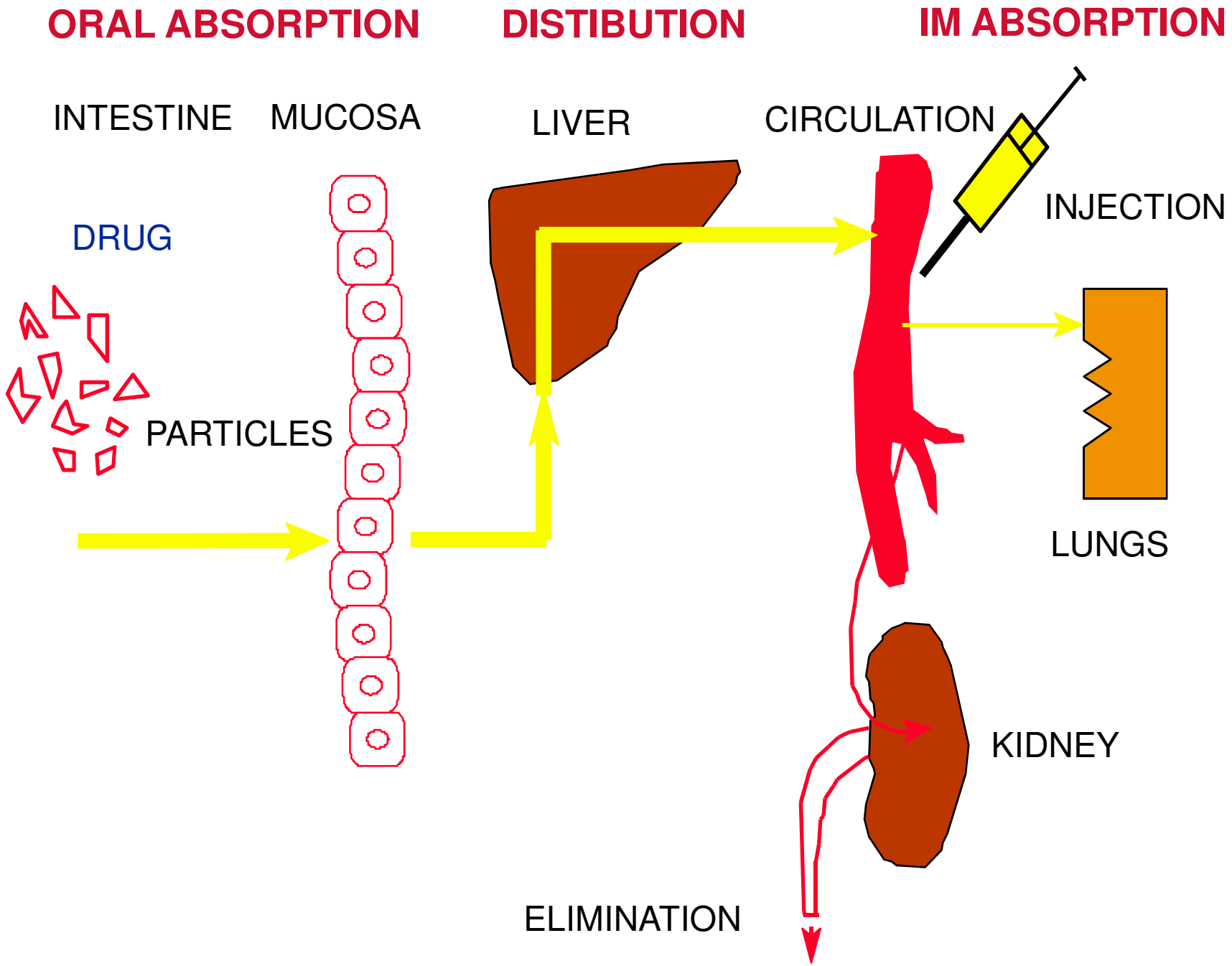
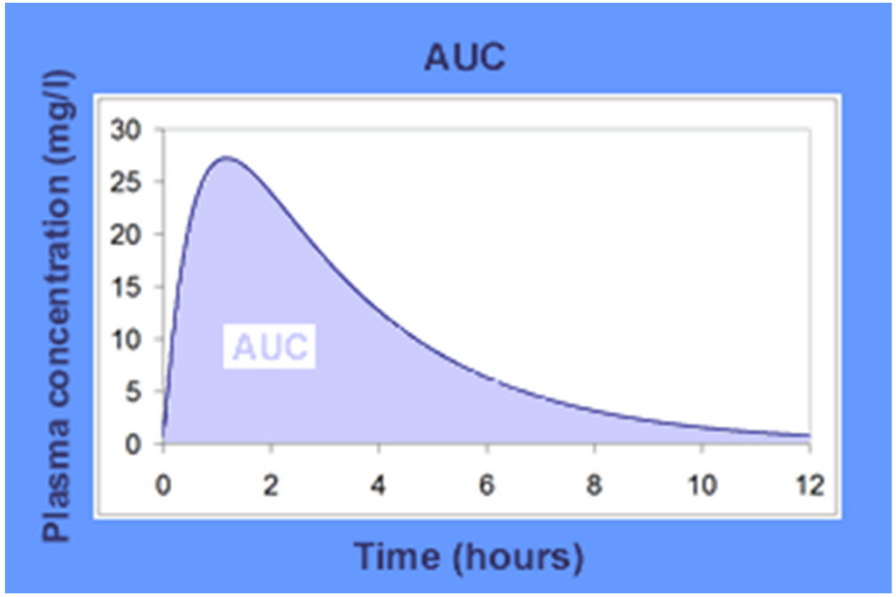
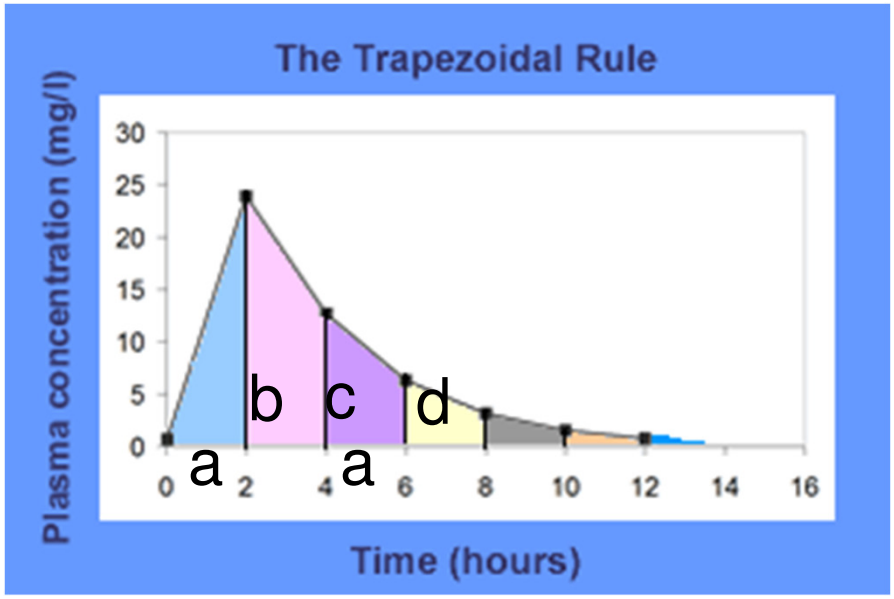
Biotilgængelighed

Bioavailability

- Fraction of a dose of drug that is absorbed from its site of administration and reaches, in an unchanged form, the systemic circulation


ORAL ABSORPTION
DISTIBUTION
IM ABSORPTION
INTESTINE
MUCOSA
LIVER
CIRCULATION
INJECTION
DRUG
PARTICLES
LUNGS
KIDNEY
ELIMINATION



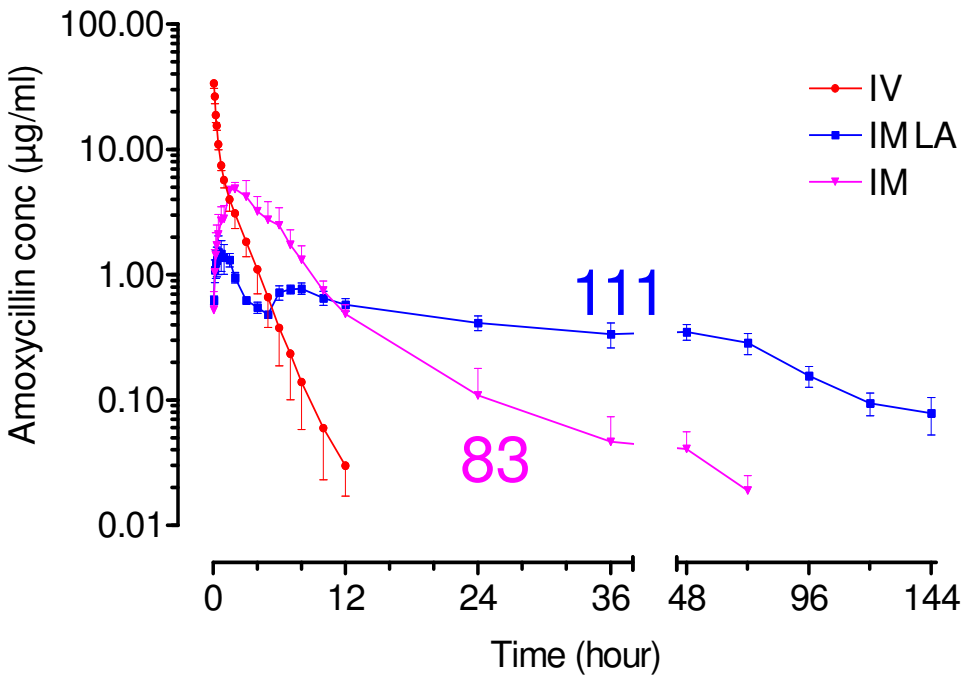


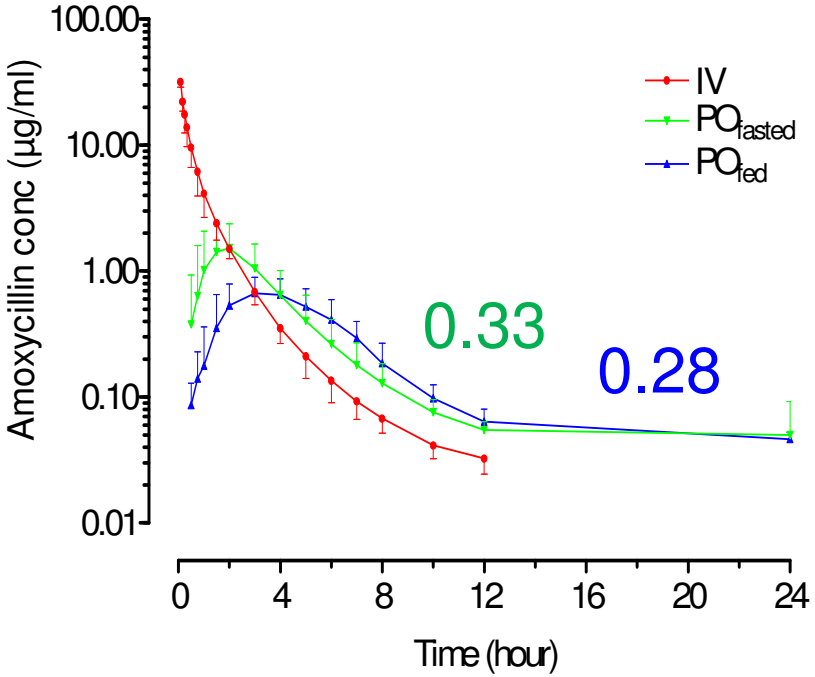
Trapezoid: ½ a (c +d)
Triangle: ½ ab

Bioavailability

$$F = \frac{AUC_{po} * Div}{AUC_{iv} * Dpo}$$

Amoxicillin - pharmacokinetics





Agersø and Friis, J. vet. Pharmacol. Therap., 1998, 21, 41

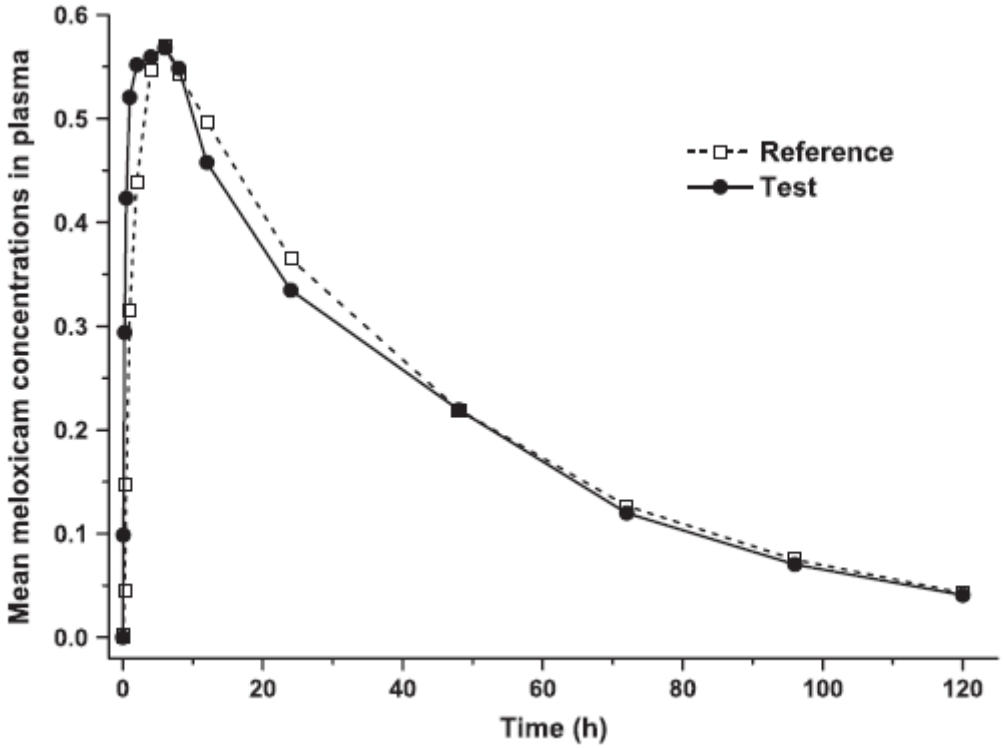
PO Biotilgængelighed kan påvirkes af

- Passagetid
- Kemisk stabilitet af lægemiddel
- Adsoption til partiker I tarm
- Metabolisme
  - i tarmakanal
  - i lever

Bioequivalence

- **Bioequivalence** is a term in pharmacokinetics used to assess the expected in vivo biological equivalence of two proprietary preparations of a drug. If two products are said to be bioequivalent it means that they would be expected to be, for all intents and purposes, the same.

Meloxicam
oral mist formulation vs po



Lees et al. J. vet. Pharmacol. Therap. 36, 78–84, 2012.

Guideline on the conduct of bioequivalence studies for veterinary medicinal products

- AUC
- Cmax
- Tmax

- 90% confidence intervals for the ratio of the population geometric means (test/reference) for the parameters under consideration