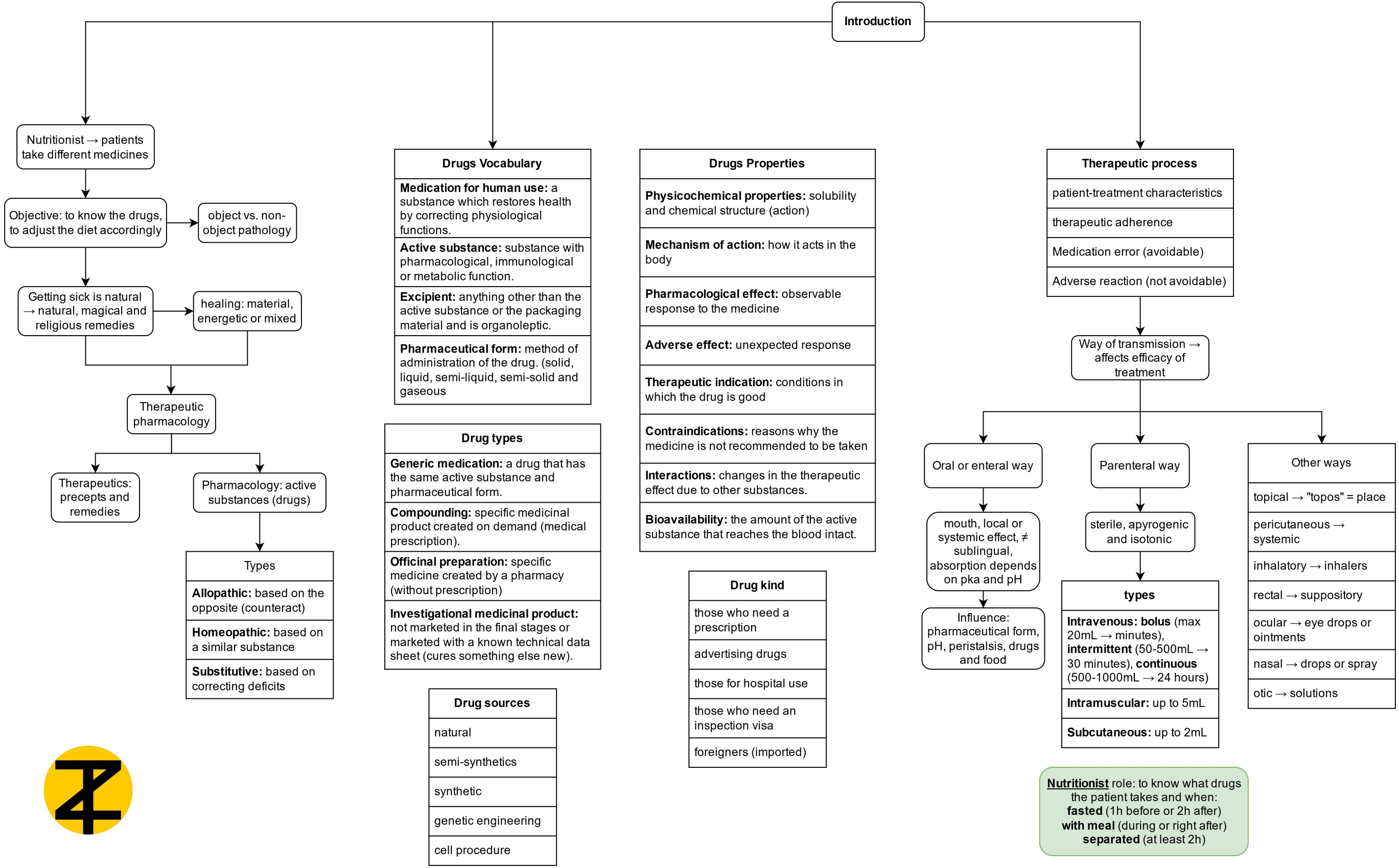
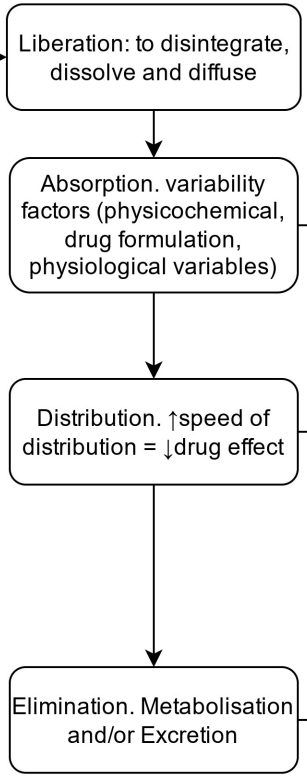
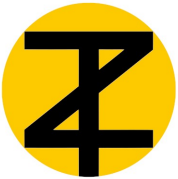
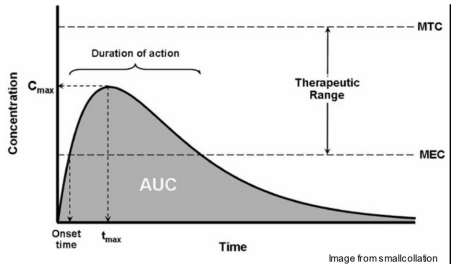
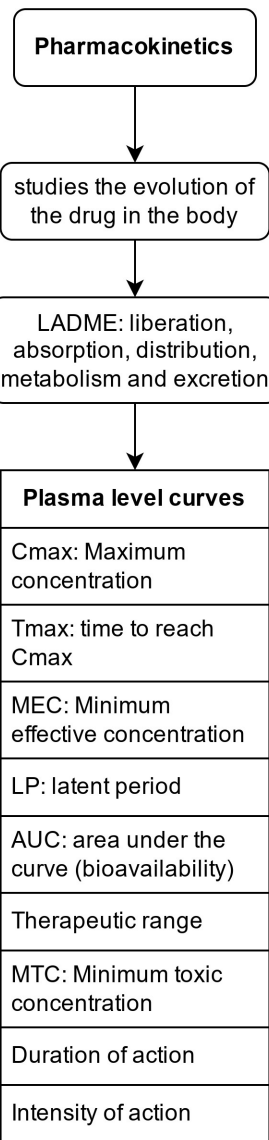






simple diffusion (liposolubility of the drug, pH, drug characteristics, ion trapping). **Filtration. Active transportation** (pinocytosis)

mouth→little absorption. **esophagus**→ no absorption. **stomach**→liberation and absorption. **intestine**→absorption of the rest

↑blood flow = ↑absorption
↑peristalsis = ↓absorption

Distribution volume = administrated drug / plasma drug

fat-soluble drugs can get inside cells

forms of the drug:
free drug (1% active).
bond to proteins (albumin, b-globulin, a-glucoprotein) ***reversible*** (reservoir)

fat-soluble drugs can enter adipose tissue

Metabolisation. chemical conversion into metabolites

Hydrosolubles easier to eliminate → liver, kidney, plasma, intestinal epithelium

inductor = ↑P-450 = ↓drug availability (ineffective)
inhibitor = ↓P-450 = ↑drug availability (toxicity)

Biotransformation reactions: **Phase I** (oxidation, reduction or hydrolysis) ↑polarity=↑elimination
Phase II (binding to endogenous polar substance) to ensure polarity ↑drug size

Factors: physiological, genetics (metabolisation speed), pathological and iatrogenic

Excretion. Renal or intestinal mainly...

3 phases

1. glomerular filtration → urine (filtration by size) free drug only

2. Active tubular secretion → proximal tubule (facilitated diffusion) ionised form

3. Passive tubular reabsorption → proximal and distal tubule, the non-ionised form

Excretion = filtration + active secretion - passive reabsorption

