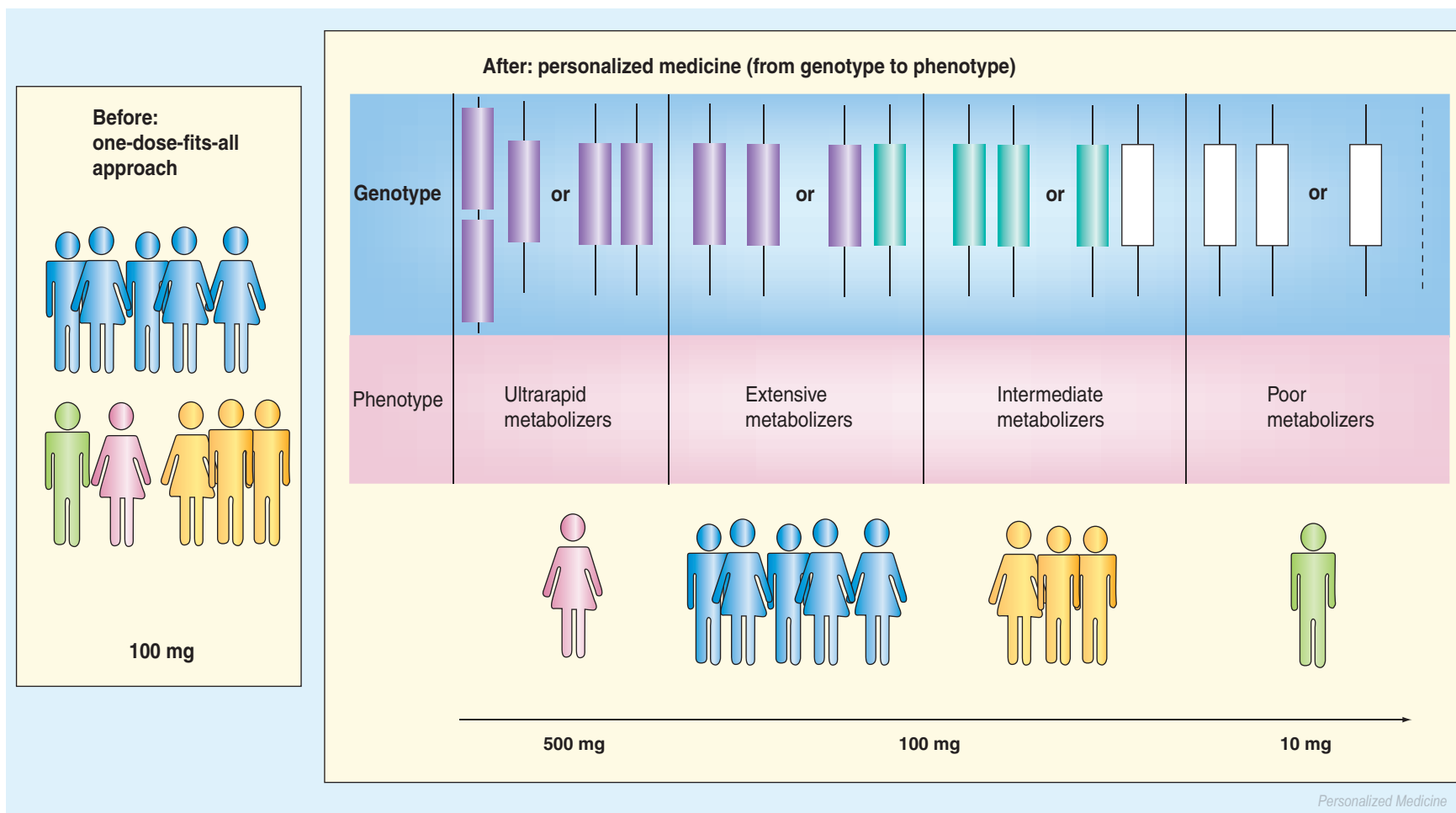


Figure 2. Representation of the trial-and-error or one-dose-fits-all approach versus personalized medicine.



Differences in prescribing the same drug (nortriptyline, an antidepressant drug) before and after genotype-based medicine. The left panel shows a one-dose-fits-all approach. In the right panel, fully functional alleles of the *CYP2D6* gene are illustrated by purple boxes, functional but impaired alleles (such as *CYP2D6**2, *9, *10, *17) by green boxes, nonfunctional alleles (such as *CYP2D6**3, *4, *6) by white boxes, and deletion of the *CYP2D6* whole gene (i.e., *CYP2D6**5) by a dashed line. The phenotype is predicted for each individual patient. To achieve the same plasma drug level, nortriptyline dose requirements (mg/day) vary by genotype [19].