

Fixed dose combination (FDC) products: challenges and opportunities

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Fixed dose combination (FDC) products are common in the treatment of hypertension, diabetes, human immunodeficiency virus, and tuberculosis.

They make it possible to combine two or more drug molecules with different pharmacological actions in a single dosing unit and improve the therapeutic treatment.



From a patient perspective, they offer convenience, reduced dosing unit burden, and cost savings.

From a clinical perspective, elderly population in developed countries will need multiple medications to treat age related diseases and co-morbidities.

FDC products simplify dosing regimen and enhance patient compliance.



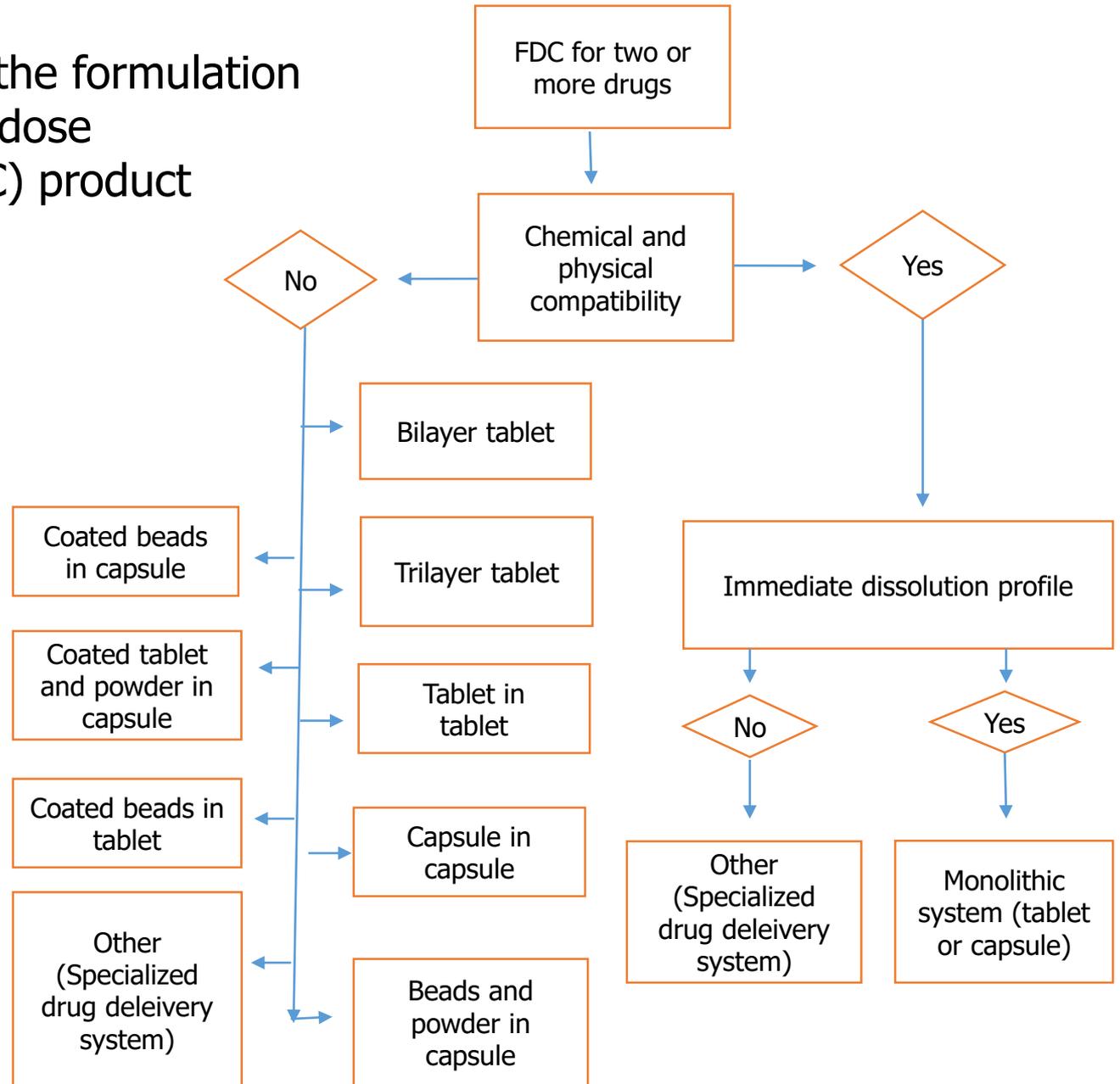
The number of FDC products has grown over the years and the trend is likely to continue.



This meeting will give an overview to pharmaceutical scientists about recent trends in the development of the FDC products.



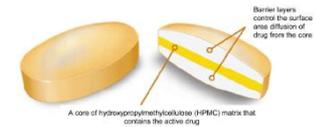
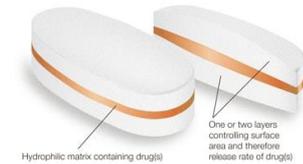
Decision tree for the formulation design of a fixed-dose combination (FDC) product



The formulation technologies that allow to obtain:

- multi-layer tablets,
- multiparticulates,
- functional film-coated systems, and
- hot-melt granules

are those most commonly used, but the specialized technologies recently developed are very interesting.



FDCs as one of many opportunities present on the market to innovate oral solid-dosage forms together with the growing interest for multiparticulate formulations and new drug delivery systems.

The overall aim is to make better use of existing drug products through improvement of pharmacokinetic profile, bioavailability, and therapeutic effect, as well as reduction of side effects.



FDCs can be especially useful to support long-term concurrent therapies in patients affected by chronic diseases that are related to each other.

It is believed that the current elderly population is a driver for growth for this type of oral solid-dosage form.