

Investigation of an Approach in Drug Delivery: Orally Fast Disintegrating Tablets

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Abstract : Orally fast disintegrating tablets (FDTs or ODTs) have become popular during the last decade, and manufacturing of ODTs is getting a rapidly growing area in the pharmaceutical industry. The concept of ODTs has emerged from the desire to provide patients with more conventional means of taking their medication. Drugs, that have satisfactory absorption from the oral mucosa or aimed for immediate therapeutic activity can be formulated in ODTs. After placing the ODT into the mouth, these tablets dissolve or disintegrate in the mouth usually less than a minute, in the absence of additional water. Even though the ODT technology has taken an important path, as proved by a large group of commercial products on the drug market, there are so many problems to be solved in ODT formulations such as; formulation of hydrophobic drugs is still a challenge, especially when the amount of drug is high. As these tablets dissolve or disintegrate in the mouth without the need of additional water, taste masking of active ingredients becomes essential in these systems because the drug is entirely released in the mouth. In ODT technology, coping with the taste of drugs is still a challenge. Resins or sweeteners or other techniques are also used in the formulation to aid taste-masking of the API. Another important factor to consider is whether they can be manufactured using conventional equipment and processes, as this will have a positive influence on manufacturing costs. Some products, however, may require a more costly, special unit-dose packaging if the dosage form is fragile. In this overview, benefits, various formulation technologies, clinical studies and some future research trends of ODTs will be discussed.

Keywords : orally fast disintegrating tablets, benefits, formulation technologies, future research trends

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