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Formulation and Evaluation of Dispersible Tablet of Furosemide for Pediatric Use

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Abstract : The objective of this work is to formulate a dry dispersible form of furosemide in the context of pediatric dose adjustment. To achieve this, we have produced a set of formulas that will be tested in process and after compression. The formula with the best results will be improved to optimize the final shape of the product. Furosemide is the most widely used pediatric diuretic because of its low toxicity. The manufacturing process was chosen taking into account all the data relating to the active ingredient and the excipients used and complying with the specifications and requirements of dispersible tablets. The process used to prepare these tablets was wet granulation. Different excipients were used: lactose, maize starch, magnesium stearate and two superdisintegrants. The mode of incorporation of super-disintegrant changes with each formula. The use of super-disintegrant in the formula allowed optimization of the disintegration time. Prepared tablets were evaluated for weight, content uniformity, hardness, disintegration time, friability and in vitro dissolution test.

Keywords : formulation, dispersible tablets, wet granulation, superdisintegrants, disintegration
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