

Somchai Rasikawan Mr. : Comparative Studies of the Method and the Dissolution Rate of Isoniazid, Diazepam and Indomethacin Tablets. Thesis Advisor lecturer Sirisak Dumrongpisuthigul, Lecturer Song Yootyacharn. 115 p.

Direct compression, slugging, wet granulations and microgranulation method were employed to prepare the tablets. Different manufacturing methods affect the binder distribution which govern the characteristic including the dissolution rate of tablets.

Isoniazid, diazepam and indomethacin are freely soluble, slightly soluble and practically insoluble in water. Manufacturing methods had no effect on the physical properties of isoniazid tablets regardless without the binders or with 0.1%, 0.2% and 0.3% w/w of methyl cellulose or acacia as binders in the formulations. It was found that the methods of tablet preparation had an influence on the hardness, friability and dissolution rate properties of diazepam and indomethacin tablets except those prepared without the binder. Tablets which were prepared by microgranulation method exhibited the fastest dissolution rate followed by tablets which were made by wet granulation, direct compression and slugging process respectively. Tablets with a different amount of binders did not show the clearly different dissolution rate of tablets.