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Preparation and Quality Evaluation of Ferrous Fumarate and Folic Acid Oral Dispersible Tablets

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***SUMMARY*. The aim of this study was to develop a method for the preparation of ferrous fumarate and folic acid oral dispersible tablets and their quality evaluation through HPLC and spectrophotometry. The formulation was optimized with dissolubility and dispersed uniformity as reference parameters by single-factor and orthogonal experiments. The results exhibited that the optimal formulation contained: 182 mg ferrous fumarate, 0.4 mg folic acid, 101 mg microcrystalline cellulose, 27 mg crosslinking polyvinylpyrrolidone, 5 mg sodium dodecyl sulfate, 13.5 mg 2% povidone-K_{30}, 3.4 mg micronized silica gel, 1.7 mg magnesium stearate, and 3.4 mg steviosin with exterior and interior addition. The disintegration time was approximately 50 s or less, and more than 80% of folic acid and ferrous fumarate were dissolved within 10 min. Consequently, the formulation design is reasonable; the process of preparation is feasible.**

KEY WORDS: Dispersible tablets, Ferrous fumarate, Folic acid, Formulation, Quality evaluation.

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