



Design of Sustained Release Tablet Formulations of Alfuzosin HCl by means of Neuro-Fuzzy Logic

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SUMMARY. Fuzzy logic is a problem-solving technique which derives its power from its ability to draw conclusions and generate responses based on vague, ambiguous, incomplete and imprecise information. This study is intended to design sustained release formulation of alfuzosin HCl by means of Neuro-Fuzzy logic. For the preparation of sustained release tablets of alfuzosin HCl, the selected parameters were as polymer type and concentration, tablet compression pressure force and concentration of lubricant. Physical and chemical tests of the tablets and commercial tablets were performed. The results of these tests and were installed on to the Form Rules V3.32 Neuro-Fuzzy logic software program. It was requested to assess and determine the most similar formulation to the reference product from logic software program. The compatibility of the program-recommended formulation was confirmed with dissolution studies using similarity factor.

KEY WORDS: Alfuzosin hydrochloride, Neuro-fuzzy logic, Quality by design, Sustained release tablet, Xanthan gum.

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