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Development and Validation of Spectrophotometric Methods for Estimating Amisulpride in Pharmaceutical Preparations

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Five simple, sensitive, accurate and rapid visible spectrophotometric methods (A, B, C, D and E) have been developed for estimating Amisulpride in pharmaceutical preparations. These are based on the diazotization of Amisulpride with sodium nitrite and hydrochloric acid, followed by coupling with *N*-(1-naphthyl)ethylenediamine dihydrochloride (Method A), diphenylamine (Method B), *β*-naphthol in an alkaline medium (Method C), resorcinol in an alkaline medium (Method D) and chromotropic acid in an alkaline medium (Method E) to form a colored chromogen. The absorption maxima, λ_{max}, are at 523 nm for Method A, 382 and 490 nm for Method B, 527 nm for Method C, 521 nm for Method D and 486 nm for Method E. Beer's law was obeyed in the concentration range of 2.5 – 12.5 μg mL^{-1} in Method A, 5 – 25 and 10 – 50 μg mL^{-1} in Method B, 4 – 20 μg mL^{-1} in Method C, 2.5 – 12.5 μg mL^{-1} in Method D and 5 – 15 μg mL^{-1} in Method E. The results obtained for the proposed methods are in good agreement with labeled amounts, when marketed pharmaceutical preparations were analyzed.

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