

Review on analytical studies of some pharmaceutical compounds containing heterocyclic rings: brinzolamide, timolol maleate, flumethasone pivalate, and clioquinol

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Abstract

The heterocyclic compounds are extremely important with wide array of synthetic, pharmaceutical, and industrial applications. Heterocyclic-containing compounds have been reported for their broad spectrum of biological activities including antibacterial, antifungal, antiviral, antiprotozoal, and anthelmintic activity.

Main text: Several techniques have been used for the quantitation of heterocyclic compounds in pharmaceutical samples such as high-performance liquid chromatography (HPLC) either equipped with UV-visible or fluorescence, in addition to liquid chromatography-mass spectroscopy, UV-visible spectrophotometry, and electrochemical techniques. This article reviewed several published methods that have been applied to detect and quantify some pharmaceutical drugs containing heterocyclic compounds focusing on four drugs: brinzolamide, timolol maleate, flumethasone pivalate, and clioquinol.

Conclusion: From literature reviews, HPLC is the most widely used analytical technique for the quantitative analysis of the four selected drugs.

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