CHAPTER -II

REVIEW OF LITERATURE

Review of work already done on the subject:

Some of the reported methods of analysis of drugs in (single & multi-components) different formulations include:

- Sensitive and Rapid HPLC Method for the Determination of Pioglitazone in Rat. Serum\(^{(55)}\). (Ravikanth, C., Kumar, A. A., Kiran V.U. et. al., 2011)
- Simultaneous Estimation of Glimepiride, Rosiglitazone and Pioglitazone Hydrochloride in the Pharmaceutical Dosage Form\(^{(56)}\). (Havaldar F. H. and Vairal D. L., 2010)
- UV Spectrophotometric Determination of Carvedilol in Pharmaceutical Formulations\(^{(57)}\). (Theivarasu, C., hosh S. A. and Indumathi, T., 2010)
- Analytical method development & validation of carvedilol by HPLC in bulk and dosage form\(^{(58)}\). (Sreenivas S. A., D. Sandeep & Choudhary A., 2010)
- High-performance liquid chromatography determination of carvedilol in pig serum\(^{(59)}\). (Yamsani V. V., Gannu R., Yamsani M. R., & Veerabrahma K., 2010)
- Spectrophotometric study of β-cyclodextrin-rosiglitazone maleate inclusion complex and its analytical application\(^{(60)}\). (Jain I. and Bansal, G., 2010)
SPECTROPHOTOMETRIC & HPLC METHODS FOR POORLY WATER SOLUBLE DRUGS

- Study of Stressed Degradation Behavior of Pioglitazone Hydrochloride In Bulk And Pharmaceutical Formulation By HPLC Assay Method\(^{64}\). (Sharma S., Sharma, M. C., Chaturvedi, S. C., 2010)
- Development and Validation of HPTLC Method for the Simultaneous Estimation of Telmisartan and Ramipril in Combined Dosage Form\(^{66}\). (Patel, V. A., Patel, P. G., Chaudhary, B. G., et. al., 2010)
- Development of Spectrofluorimetric and HPLC Methods for *In vitro* Analysis of Repaglinide\(^{67}\). (Kaushal N., Jain S., and Tiwary A. K., 2010)
- Extractive Spectrophotometric Methods for the Determination of Etoricoxib in Tablets\(^{68}\). (Shah Kamal, Gupta Alka and Mishra Pradeep, 2009)
- Determination of Losartan, Telmisartan and Valsartan by direct injection of human urine into a column-switching liquid chromatographic system with fluorescence detection\(^{69}\). (Brunetto, D. R., Contreras Y, Clavijo S., et. al., 2009)
- Spectrophotometric and HPLC determinations of anti-diabetic drugs, rosiglitazone maleate and metformin hydrochloride, in pure form and in pharmaceutical preparations\(^{70}\). (Armagan Onal, 2009).
- Simultaneous Determination of Simvastatin & Ezetimibe in Tablets by HPLC\(^{71}\). (D. Anantha K., Sujan D. P., 2009)
- UV and Three Derivative Spectrophotometric Methods for Determination of Ezetimibe in Tablet Formulation\(^{72}\). (Sharma M., Mhaske, D. V., Kadam, S. S. et. al., 2008)
Development and Validation of UV Spectrophotometric Method for the Determination of Etoricoxib in Bulk and Tablet Formulation (Shahi S.R., Agrawal G.R., Rath P.B., et. al., 2008)

RP-HPLC Method for the Simultaneous Determination of Aspirin, Atorvastatin and Pioglitazone in Capsule Dosage Form (Ismail, R R., M Ganesh, M Jagadeeswaran, et. al., 2008)

Determination of Pioglitazone Hydrochloride in Tablets by High-Performance Liquid Chromatography (AMR Lotfy Saber, 2008)

An improved and fully validated LC–MS/MS method for the simultaneous quantification of simvastatin and simvastatin acid in human plasma (Apostolou C., Kousoulos C., Dotsikas Y., 2008)

HPLC determination of ezetimibe & simvastatin in Pharmaceutical formulation (Ashfaq M., Ullahkhan I., Qutab S. S., 2007)


Method development and validation of repaglinide in human plasma by HPLC and its application in pharmacokinetic studies (Ruzilawati, A. B., Suhaimei M., Wahab A., et. al., 2007)

New RP-HPLC method with UV-detection for the determination of carvedilol in human serum (Gannu R., Yamsani V. V. and Rao Y. M., 2007)


The transfer of a LC-UV method for the determination of fenofibrate and fenofibric acid in Lidoses: Use of total error as decision criterion (Rozet, E., Mertens, B., et. al. 2006)

Stress degradation studies on ezetimibe and development of a validated stability-indicating HPLC assay (Singh S., Singh B., Bahuguna R., et. al. 2006)
- High-performance liquid chromatographic method for the determination of pioglitazone in human plasma using ultraviolet detection and its application to a pharmacokinetic study (Pattana S., Penporn N. and Aurasorn S., 2006)
- First-derivative ultraviolet spectrophotometric and high performance liquid chromatographic determination of ketoconazole in pharmaceutical emulsions (Maria E. R., Hackmann K., Santoro R. M., et. al., 2006)
- Validated Analytical Methods of Repaglinide in Bulk and Tablet Formulations (Rajput, S. J. Chaudhary, B. G, 2006)
- Stability Indicating RP-HPLC Method For Determination Of Pioglitazone From Tablets (Wanjari, D. B and Gaikwad, N. J., 2005)
- New application of hydrotropic solubilization in the Spectrophotometric estimation of Ketoprofen in tablet dosage form (Maheshwari R. K., 2005)
- Spectrophotometric methods for quantitative estimation of donepezil HCl from tablet formulation (Pillai S & Singhvi I, 2005)
- Quantitative analysis of repaglinide in tablets by reversed-phase thin-layer chromatography with densitometric UV detection (Gumieniczek, A., Berecka A. and Hopkala H., 2005)
- Spectrophotometric methods for simultaneous estimation of prednisolone and chlorpheniramine maleate from combined tablet dosage form (Goyal A and Singhvi I., 2005)
Visible spectrophotometric determination of risperidone in tablet formulations\(^{96}\). (Goyal A & Singhvi I, 2005)

Spectrophotometric determination of cefixime in tablets by hydrotropic solubilization phenomenon\(^{97}\). (Maheshwari R. K., 2005)

Visible spectrophotometric methods have been developed for estimation of repaglinide in pharmaceutical formulations\(^{98}\). (Goyal A & Singhvi I, 2005)


Statistical method comparison: short- and long-column liquid chromatography assays of ketoconazole and formaldehyde in shampoo\(^{100}\). (Nguyet A. N. M., Nederkassel A. M. V., Tallieu L., 2004)

Quantitative analysis of simvastatin and its β-hydroxy acid in human plasma using automated liquid–liquid extraction based on 96-well plate format and liquid chromatography-tandem mass spectrometry\(^{101}\). (Zhang N., Yang A., Rogers, J. D. and Zhao J. J., 2004)

Analytical methods for the quantitative determination of 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitors in biological samples\(^{102}\). (Sidika E. A. O. and Çetin S. M., 2003)

Direct injection HPLC method for the determination of selected benzodiazepines in plasma using a Hisep column\(^{103}\). (Pistos C. and Stewart, J. T., 2003)

Determination of Repaglinide in Pharmaceutical Formulations by HPLC with UV Detection\(^{104}\). (Gandhimathi M. Ravi T. K. and Renu S. K., 2003)

Pharmacodynamic interaction between the new selective cholesterol absorption inhibitor ezetimibe & simvastatin\(^{105}\). (Teddy K., Ingo M., Enrico P. V., et. al., 2002)

Disposition of the Selective Cholesterol Absorption Inhibitor Ezetimibe in Healthy Male Subjects\(^{106}\). (James E. P., Teddy K., et. al. 2002)

Visible spectrophotometric methods have been developed for estimation of Clarithromycin from tablet formulation based on formation of coloured complex of drug with concentrated hydrochloric acid and acetone, ion pair complex of the drug with bromocresol green and bromophenol blue\(^{107}\). (Singhvi I, 2002).
Optimised determination of clobazam in human plasma with extraction and high-performance liquid chromatography analysis (Bolner A. Tagliaro F. and Lomeo A., 2001).


Spectrophotometric Determination Of Fluvoxamine Maleate And Fluoxetine Hydrochloride (Barbara Starczewska, 2001).

Two visible spectrophotometric and one HPLC methods have been reported for estimation of Ramipril from capsule formulation (Singhvi I, & Chaturvedi, S. C., 2001).

A Visible and HPLC method for the estimation of Sertaline HCl from tablet formulation are reported (Singhvi I, & Chaturvedi, S. C., 2000).

Simultaneous determination of Ranitidine and Domperidone in pharmaceutical dosage form by HPLC have been reported (Kanumula G. B. & Raman B., 2000).
