1. Chiu j. Et al.(1996) have reported the HPLC method for determination of olanzapine in plasma the limit of quantification is 1ng per ml in plasma. The method provides linear response for olanzapine over a concentration range of 1-100ng per ml with coefficient of determination was greater than 0.9912. The inter and intra - assay precision observed was in the range of 7.33%-8.47% and 0.97-26.0% respectively. The inter - assay accuracy and intra - assay accuracy ranged from 98.9 to 118% and 92.5 to 125% respectively. Olanzapine and its two metabolites n-desmethyl and 2-hydroxy methyl accounted for less than 50 %of total plasma radiocarbon.

2. Aravagiri M. Et al.(1997) worked on plasma samples one step liquid –liquid extraction with 15% methyl chloride in pentane with recovery of approximately 94%of the total olanzapine in plasma. Cyano column is used for separation. The patients are treated with daily doses of 10,15 and 20mg tablet the lower  limit of determination of assay was 0.25ng. The inter assay and intra assay variance was less than 10%. The standard curve was linear and ranges between 0.25 to 50 ng/ml of olanzapine the result indicates plasma level of olanzapine increases linearly with dose(r=0.6889 , p=0.01)

3. Kasper S. Et al. (1999) have reported reversed phase HPLC method for quantification of olanzapine in human breast milk. The column used was 150mm x 4.6 mm i.d.,5 micron particle size at a rate of 1ml/min. a mixture of 75Mm phosphate buffer,Ph7.0-acetonitrile-methanol (48:26:26,v/v/v) was used as mobile phase. The standard curve with lower limit of quantation of 0.25ng/ml of olanzapine were linear over a range of 0.25-100ng/ml. The inter day accuracy was99.0% with average precision of 6.64%.

4. Raggi Maria et al.(2000) have worked with quality control of olanzapine by HPLC method using C8 column and mobile phase constituted of acetonitrile and aqueous tetra methyl ammonium perchlorate. Repeatability and intermediate precision was better than 1.8%.,The accuracy was in between 99.9 and 101.1%.The recovery was between 97.8 and 102.6%.
5. **Raggi Maria et al.(2000)** have reported a sensitive HPLC method for analysis of olanzapine in human plasma. The column used was C8, 150 x 4.6mm i.d., 5 micron with acetonitrile phosphate buffer as a mobile phase. The flow rate was 1 ml per min. This method provides linear response over a range of 2-100 µg per ml.

6. **Bergman N. et al.(2004)** studied plasma Conc of olanzapine in 71 schizophrenic patients with HPLC. 56 patients were received only olanzapine while rest of the patients received co-medication with olanzapine. The daily dose was 17.5mg (sd=7.0, range 5-40mg) and olanzapine plasma conc was 52.2ng /ml (sd=37.8, range1.2-208ng/ml). The plasma conc of olanzapine increased linearly with daily oral dose(r=0.64, p was less than 0.001).

7. **Sultana sharifa (2004)** observed method determination of olanzapine in pharmaceutical formulations. C-8 column (150 x 4.6mm x 5 µm length), optimum separation was achieved in 15 min with 1ml0min flow rate, and Sdetection was done at 260 nm. The method produced linear responses in conc range 45.2-135.6 with co-relation coefficient of 1, accuracy of 99.80%.

8. **D. Gowri Sankar(2005)** developed sensitive spectroscopic method for estimation of sisomicin and olanzapine in pure and pharmaceutical formulations. Folin-Ciocalteu reagent under alkaline conditions shows blue colour with maximum absorbance at 725 nm and 655nm. Beer’s law was obeyed at 10-15 µg/ml. concentration for sisomicin and 1.5-7.5 µg/ml concentration olanzapine.

9. **Reddy Venkateswara et al.(2007)** have presented specific reversed phase HPLC method for determination of olanzapine and fluoxetine. chromatographic separation was carried out at C18 column with 40:30:30(v/v/v) mixture of 9.5Mm sodium hydrogen phosphate with pH 6.8 with trimethyl amine. Acetonitrile and methanol are used as mobile phase. The assay results were linear from 25-75micro gram per ml. The intra and inter day precision was less than 1% accuracy and LOQ for olanzapine was 97.7-99.1 and 0.005. Separation of olanzapine and fluoxetine was carried out in less than 10 min.

10. **Rao Ramisetti et al.(2008)** described RP-HPLC method for separation and determination of olanzapine and pharmaceutical formulation was developed.
The separation was carried out on intertsil OSD 3V (4.6X250mm;and particle size is 5 micron). Ammonium acetate and acetonitrile are used as mobile phase.

11. Shah C. Et al.(2008) have developed method for estimation of olanzapine and fluoxetine in combined tablet dosage form. The column used was silica gel 60 F TLC with methanol and toluene (4:2v/v) as mobile phase. The calibration plots shows good linear relationship in the range of 100-800 ng/spot for olanzapine and 1000-8000 ng/spot for fluoxetine. The limit of detection and quantification was found for olanzapine 30 and 100 ng/spot respectively, and for fluoxetine 300 and 1000 ng/spot respectively.

12. K. Basavaiah et al.(2008) have developed HPLC method and validate for determination of olanzapine in pharmaceutical formulation. ODS column is used for separation (150mm x 4.6mm i.d. particle size 5 micron). A rectilinear relationship was observed in the range 10-200 µg/ml and quantification limit was 8.0 µg/ml. The accuracy evaluated was in the range 97.7-102.35%.

13. Pathak A. Et al.(2009) described RP-HPLC method for analysis of olanzapine and fluoxetine in the presence of degradation products. Separation of drugs was observed on C-18 column using 75 mm potassium dihydrogen phosphate, acetonitrile – methanol (55:40:5v/v/v) as the mobile phase.

14. Nagaraju Rjendraprasad and K. Basavaiah (2009) developed sensitive spectroscopic method using permanganate as oxidometric reagent. The method involved addition of permanganate to olanzapine in either acid or alkaline medium followed by determination of unreacted permanganate at 550 nm (method A) or bluish-green colour of manganate at 610 nm (method B). The decrease in absorbance in method A and increase in absorbance method B was measured. Beer’s law was obeyed at the range 2.0-20 and 1.0-10 µg/ml in method a and b respectively. The LOD and LOQ are 0.37 and 1.13 µg/ml for method A and 0.16 and 0.48 µg/ml method B. The RSD was in the range 0.51-2.66% and accuracy ranged from 0.79-2.24%. The mean % recoveries were 102±1.59 (method A) and 101±1.35(method B).

15. A. Prameela Rani et al.(2009) reported RP-HPLC method was developed for determination of olanzapine. The intertsil C-18 column was used. The chromatograms are observed by using mixture of ammonium phosphate buffer
and methanol (70:30:5 v/v) as a mobile phase at 1ml/min rate. Method gives linear response in concentration range 2-10 µg/ml.

16. K. Swapnakumari (2010) have observed the affect of chemical properties of olanzapine on dissolution, absorption and pharmacodynamics. The physical forms of olanzapine were generated with solvents 0.1N Hcl and 0.1N Hcl containing solubilising surfactants like SLS tween 20 and tween 80(0.5%w/v). Then M.P., solubility were determined in 6.8 phosphate buffer. The physical form isolated from 0.1N Hcl shows more solubility and better locomotor activity. The dissolution rate of crystalline form follows first order kinetics. In vitro absorption and in vivo pharmacodynamic activity can be modified with alterations in physical forms of the drug.

17. Jadhav Sanjay et al.(2011) developed simple and rapid RP-LC method of determination of both assay and related substances in paliperidone was developed. During the forced degradation, degradation was observed in oxidative and acid stress conditions. Two impurities were found to be degradents. The hypersil BDS C18 (250X4.6 ,nm 5µm) column was used and mass balance was found to be close to 99.0%.

18. Hima Bindu et al.(2012) have reported a linear gradient and stability indicating method for estimation of related substances and degradents of paliperidone API and tablets. The separation were achieved using an Acquity UPLC BEH 100mm,2.1mm,1.7 µm C18 column with potassium di hydrogen phosphate buffer (pH 2) as a mobile phase A and acetonitrile –water (9:1) as a mobile phase B. A linear gradient mobile phase A, mobile phase B in the ratio 84:16 was chosen.

19. A. Manjuladevi et al.(2012) developed a novel and precise HPLC method for estimation of paliperidone using paracetimol as internal standard Li Chrospher RP-18 column was used, while 10mM ammonium acetate: methanol in the ratio of 10:90(v/v) as a mobile phase. The limit of detection and limit of quantification were 0.569 and 1µg per ml.

20. Pawar Shubhangi (2012) have reported sensitive and precise HPTLC for determination of paliperidone as a bulk drug and formulation. Aluminium plates precoated with silica gel 60F-254 as stationary phase and ethyl acetate
Toluene: ammonia 6:1:0.5(v/v/v). A good linear relationship over a concentration range of 150-1500 ng per spot was observed.

21. **Tantawy Mahmoud et al. (2012)** developed HPLC method for simultaneous determination of olanzapine and fluoxetine HCL and used C 18 column with isocratic elution. The mobile phase composed of phosphate buffer pH 4: acetonitrile:triethyl amine (53:47:0.03 by volume) at flow rate 1ml per min. The method was applied in bulk powder and combined capsule dosage form.

22. **Dadare Khemchand et al. (2012)** approached for simultaneous estimation of paliperidone in formulation in presence of degradation products. Separation was achieved on Zorbax SB C-18,50mm x 4.6mm, 1.8 µm column with mobile phase A consisting buffer pH 4: acetonitrile in the ratio 95:5v/v respectively. Mobile phase B consist of buffer:0.05M Na$_2$HPO$_4$ anhydrous and ortho phosphoric acid. The linearity was investigated in the range of 30-90 µg/ml.

23. **Rao Rukmangada et al. (2012)** have developed RP-HPLC method for determination of olanzapine in pharmaceutical dosage form. The column used was Capcell pak C-18(250X4.6mm , 5µm) and mobile phase consisting acetonitrile:water:triethylamine (60:40:0.1v/v/v). The method produced linear responses in the concentration range 2-12 µg/ml.

24. **P.Satyanarayana (2012)** have reported RP-HPLC method for determination of paliperidone in pharmaceutical dosage form. The column used was chromosil C-18 (250X4.6, 5µm) and mobile phase consisting of methanol: acetonitrile: water (60:10:30v/v/v). The % RSD for precision and accuracy of the method was found to be less than 2%.

25. **Chaudhary Vilas et al. (2013)** have developed an isocratic RP-HPLC method for determination of olanzapine hydrochloride in bulk drugs. The column used was Kromosil C18 (250X4.6 mm, 5µm) and mobile phase consisting 0.1 M potassium dihydrogen phosphate pH 6.0 with triethyl amine. Homogeneous mixture of buffer, methanol and acetonitrile (55:45v/v) was also used.

26. **Punugoti Raja and Jupally Venkateshwar (2013)** reported RP-UPLC method for determination of olanzapine in pharmaceutical dosage form. The column used was Waters Acuity HSS T-3 C-18 (100X2.1, 1.8µm) and mobile phase
consisting of potassium dihydrogen phosphate: methanol in the ratio 60:40 v/v. The % RSD for precision and accuracy of the method was found within 1.5% and recovery data is in the range of 98.2-100.9%

27. Rao Nageswara et al. (2013) have reported HPLC method for determination of paliperidone in pharmaceutical dosage form. The column used was Thermosil Symmetry C-18 (100X4.6mm, 5µm) and mobile phase consisting of ammonium acetate buffer pH 4.0 acetonitrile in the ratio 50:50 v/v). The % recovery was 98.5% to 101.3%

28. Kumar Ashok et al. (2013) have reported RP-HPLC method for determination of paliperidone in bulk drug and pharmaceutical dosage form. The column used was phenomenax Luna (ODS) C-18 (150X4.6mm, 5µm) and mobile phase consisting of phosphate buffer Ph 3.0: acetonitrile in the ratio (60:50 v/v). The calibration curve was linear in the concentration range 5-30 µg/ml. The limit of detection and quantification were found to be 0.580531 µg/ml and 1.75918 µg/ml respectively. The recovery was 101.10 ± 1.635 %.

29. K. Umamaheshwar et al. (2013) have developed RP-HPLC method for assay of paliperidone in pure and tablet form. The column used was inertsil (ODS) C-18 and mobile phase consisting of acetonitrile and methanol in the ratio (10:90 v/v). The calibration curve was linear in the concentration range 20-120ppm. The recovery was 99.56 %.

30. K. Basavaiah et al. (2014) worked on isocratic RP-HPLC method for analysis of olanzapine in bulk drug and tablet form. The column used was Inertsil (ODS) 3V and mobile phase consisting of 10 mM disodium hydrogen pH 7.4: acetonitrile in the ratio (35:65 v/v). The calibration curve was linear in the concentration range 2.5-20.0 µg/ml. The intra day RSD value and inter day RSD value was 0.11-0.28% and 0.15-0.46% respectively.

31. Injavarapu Divya and Panigrahy Uttam (2014) have developed simple, economic sensitive and rapid UV-spectrophotometric method for determination of paliperidone bulk drug and pharmaceutical dosage form. The absorption maxima was found to be at 235nm in methanol and shows linearity over the conc range 1-30 µg/ml.
32. **Pradhan Kishanta et al. (2014)** described UV - VIS spectrophotometric method for analysis of olanzapine in bulk and pharmaceutical form. Water: HCl in the ratio (9:1) acts as solvent system. The $\lambda$ max was found to be 258nm. The linear response was found to be in the range 5-40 $\mu$g/ml. The RSD value for intra day and inter day precision were less than 1%.

33. **V. Pranitha et al. (2014)** described RP-HPLC method for analysis of olanzapine and fluoxetine in pharmaceutical dosage form. Separation of drugs was observed on HYPERSIL ODS(250X4.6mm,5µ) C-18 column using 0.01M Phosphate pH 5.8: acetonitrile (55:45v/v, pH2.6 adjusted with ortho phosphoric acid) as the mobile phase. Olanzapine and fluoxetine shows linearity in the range of 18-42 $\mu$g/ml and 72-168 $\mu$g/ml. The% relative standard deviation was less than 2%. The% recovery was 100.3 and 99.3 for olanzapine and fluoxetine respectively.

34. **G. Swarnalatha et al. (2014)** have developed RP-HPLC method for assay of paliperidone in pharmaceutical formulation. The column used was Zorbas-SB-phenyl (150X4.6mm,3.5 5µm), and mobile phase consisting of pH 4 buffer acetonitrile in the ratio (80:20 v/v). The calibration curve was linear in the concentration range 1.0mg/ml. The recovery was 99.56%. The RSD value was below 2%.

35. **Boga Harinath et al. (2014)** have reported RP-HPLC method for determination of paliperidone drug present in drug substance. The column used was Develosil (ODS) HG-5RP (150X4.6mm, 5µm) and mobile phase consisting of mixture of buffer0.01m potassium hydrogen phosphate pH adjusted to 2.89 with ortho phosphoric acid and acetonitrile in the ratio (30:70 v/v). The calibration curve was linear in the concentration range 5-30 $\mu$g/ml. The limit of detection and quantification were found to be 0.03 $\mu$g/ml AND 0.09 $\mu$g/ml respectively. The recovery was 101.10 ± 1.635%. The intraday RSD value and inter day RSD value is in the acceptable limit 2%.