Conspectus of Pharmaceutical analysis

1. European Pharmacopoeia - Identification reactions of ions and functional groups.

2. Limit tests. Standard solutions.

3. Examination of melting point, boiling point and relative density of drug substances. Examination of sulfated ash. Determination of solubility.

4. Examination of the degree of coloration of liquids. Tests for clarity and degree of opalescence of liquids.

5. Tests for bacterial endotoxins.

6. Thin-layer chromatography.

7. High-performance liquid chromatography.

8. Gas chromatography.

9. Infrared spectrophotometry.

10. Ultraviolet and visible spectrophotometry.

11. Polarimetry and refractometry.

12. Validation of analytical procedures.

13. Analysis of drug substances – hydroxyl derivatives (alcohols and phenols).

14. Analysis of drug substances – ethers, aldehydes and ketones.

15. Analysis of drug substances – carboxylic acids and derivatives.

16. Analysis of drug substances – amines and amino derivatives.

17. Analysis of drug substances – purine derivatives.

18. Analysis of drug substances - pyridine derivatives.

19. Analysis of drug substances - furan derivatives.

20. Analysis of drug substances, affecting vegetative nervous system (excluding beta-blockers).

21. Analysis of drug substances - psychostimulants and nootropics.

22. Analysis of nonsteroidal anti-inflammatory drug substances.

23. Analysis of drug substances – analgesics and antipyretics.

24. Analysis of drug substances - beta-blockers.

25. Analysis of drug substances – diuretics and peripheral vasodilators.

26. Analysis of drug substances – ACE inhibitors, angiotensin II blockers and calcium channel blockers.

27. Analysis of lipid-modifying drug substances.

28. Analysis of antithrombotic and antihemorrhagic drug substances.

29. Analysis of drug substances – barbiturates.

30. Analysis of drug substances – benzodiazepines.

31. Analysis of drug substances – antipsychotics.

32. Analysis of drug substances – antidepressants.

33. Analysis of drug substances – beta-lactam antibiotics and beta-lactamase inhibitors.

34. Analysis of drug substances – antibacterial sulfonamides.

35. Analysis of drug substances – tetracyclines, macrolides and aminoglycosides.

36. Analysis of drug substances - antibacterial quinolones.

37. Analysis of antimycotic drug substances.

38. Analysis of antiviral drug substances.

39. Analysis of antineoplastic drug substances.

40. Analysis of drug substances - H1 blockers.

41. Analysis of drug substances for treatment of peptic ulcer and gastroesophageal reflux disease.

42. Analysis of drug substances with steroid structure.

43. Analysis of vitamins.

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