Research & Reviews: Journal of Pharmaceutical Analysis

e-ISSN:2320-0812

Introduction to Pharmaceutical Analysis for Drugs

Chuanfeng Zheng*

Department of Pharmacy, Jilin University, Changchun, China

Editorial

Received date: 06/9/2021
Accepted date: 10/9/2021
Published date: 15/9/2021

***For Correspondence**

Chuanfeng Zheng

Department of Pharmacy, Jilin University, Changchun, china

Keywords: Equivalent, Exceptionally, Ignited

E-mail: cfzheng@jlu.edu.cn

ABSTRACT

Pharmaceutical analysis is especially focussed in drug analyses, in raw materials and pharmaceutical formulations, involving the determination of active components, impurities, excipients, content uniformity, solubility, dissolution rate and stability.

That process involves several decision points, like the selection of the candidate drug after the invention phase, the appliance to the authorities before testing the compound for the primary time in humans, and eventually the new drug application for marketing, which summarizes the info obtained from all the studies needed for approval of the drug as a drugs. In all these steps the quantity of knowledge generated is gigantic. Analytical chemists are involved in many of the studies that constitute this documentation. Substance quality and its specifications are supported substance analysis, which knowledge is later used for internal control (QC) of the substance during full-scale production.

INTRODUCTION

The substance could also be one compound or a mix of compounds and it's going to be in any of the dosage form. The substance used as pharmaceuticals are animals, plants, micro-organisms, minerals and various synthetic products.

The sample to be analysed is named as analyses and on the idea of size of sample, they will be classified as macro(0.1 g or more), semi micro (0.01 g to 0.1 g), micro(0.001 g to 0.01 g), sub micro (0.0001 g to 0.001 g), ultra micro (below 10-4 g), trace analysis(100 to 10000 ppm). Among all, the semi micro analysis is widely used.

A branch of chemistry that deals with the identification of compounds and mixtures (qualitative analysis) or the determination of the proportions of the constituents (quantitative analysis): techniques commonly used are titration, precipitation, spectroscopy, chromatography, etc.

The definition of analytical chemistry is examining materials by separating them into their components and identifying all and the way much there's of every one.

Types

There are main two sorts of qualitative analysis

1. Qualitative (identification)

2. Quantitative (estimation)

1. Qualitative analysis is performed to establish composition of natural/synthetic substances. These tests are performed to point whether the substance or compound is present within the sample or not. Various qualitative tests are detection of evolved gas, formation of precipitates, limit tests, colour change reactions, freezing point and boiling point test etc.

2. Quantitative analytical techniques are mainly wont to quantify any compound or substance within the sample. These techniques are based in (a) the quantitative performance of suitable chemical reaction and either measuring the amount of reagent added to complete the reaction or measuring the amount of reaction product obtained, (b) the characteristic movement of a substance through an outlined medium under controlled conditions, (c) electrical measurement, (d) measurement of some spectroscopic properties of the compound.

There are varieties of regulations that need to be followed within the development of pharmaceuticals also as in their production. Regulatory approval is required before each clinical test and before marketing is licensed.

An important part of the development process is safety evaluation, primarily the toxicology tests, which run from 1 to 24 months in different species. During this point bioanalytical studies are performed also as control of the formulations utilized in the tests.