OPEN ACCESS Freely available online

ISSN: 2329-6887
Journal of Pharmacovigilance

Commentary

Identification of Quality Control of Drug Product

Markus Pretis*

Department of Pharmacy, University of Modena and Reggio Emilia, Reggio Emilia, Italy

DESCRIPTION

Identification is a vital process in pharmaceutical quality control and new drug development. Infrared (IR) and Ultraviolet (UV) spectroscopy, as well as retention matching with standards employing High-Performance Liquid Chromatography (HPLC) and Thin-Layer Chromatography (TLC), are the most essential approaches for this aim. HPLC-UV, HPLC-Mass Spectrometry (HPLC-MS), and Nuclear Magnetic Resonance (NMR) spectroscopies are used to identify contaminants and degradants. Despite the growing importance of macromolecules in medical therapy, small molecules still account for the majority of medications used today. The documentation submitted to drug regulators detail the structure elucidation as well as the identification of intermediates and end products. These are significant approaches in drug research, and characterizing the "library" obtained, which can comprise thousands of compounds, as well as identifying manufactured compounds, is a very specialized subject of drug analysis. MS and NMR spectroscopy, in combination with HPLC, are the most extensively used procedures for this function.

Quality control is an essential process in the pharmaceutical industry. Pharmaceuticals must be marketed as safe and therapeutically effective formulations with consistent and predictable performance. New and better medicines are being manufactured at an accelerating pace. At the same time, more sophisticated and sophisticated analytical methods are being developed for their evaluation.

The quality of the product and infrastructure is a critical component of pharmaceutical quality improvement. Crude material related issues are the root of many drug quality issues. As a result, pharmaceutical raw materials should be thoroughly examined. To save expense, certain pharmaceutical corporations use low-quality raw ingredients, which not only impair efficacy but also put people's lives and health at risk. Furthermore, pharmaceutical equipment must be stored and maintained in a high-quality manner. To ensure that the quality of the medication guidance is above standard, pick high-grade pharmaceutical equipment when purchasing equipment. While many pharma companies buy equipment, they do not even give heed to the equipment's visual investigation, culminating in the procurement of equipment which doesn't meet the required quality standards. And, in the application of equipment, often in the creation of different types of pharmaceuticals, cleaning is insufficient, resulting in a significant impact on the drug's performance. Furthermore, many pharmaceutical enterprises do not pay attention to equipment maintenance and maintenance, resulting in equipment rust; additionally, the equipment is not cleaned in a timely manner, resulting in residual drug residue in the equipment, which is easily mixed with other drugs, resulting in serious consequences.

The study of drug research quality management necessitates lengthy persistence and efforts, as well as relevant personnel to conduct a comprehensive analysis of medicinal chemistry, and pharmacological process thus every connection to undertake a thorough invention and enhancement, particularly pharmacological natural resources, equipment, and R&D staff strict quality control, in order to create good basic conditions for the development of pharmaceutical technology. In addition, to create new development directions for the pharmaceutical process, expand development space, and provide a solid foundation for improving drug quality, it is necessary to combine science and technology development, promote internal improvement of the pharmaceutical process, strengthen full integration with biotechnology, and develop green pharmaceuticals such as intelligent pharmaceutical drugs in the future research & development. This could considerably enhance pharmacological performance, cut prices, drop the cost of drugs, create quality benefits, as well as provide guarantee for the abilities of pharmaceutical enterprises through research on the development of drug research and development and pharmaceutical technology.

Correspondence to: Markus Pretis, Department of Pharmacy, University of Modena and Reggio Emilia, Reggio Emilia, Italy, E-mail: pretis.markus@unimore.it

Received: 16-Mar-2022, Manuscript No. JP-22-16590; **Editor assigned:** 21-Mar-2022, PreQC No. JP-22-16590 (PQ); **Reviewed:** 04-Apr-2022, QC No.JP-22-16590; **Revised:** 11-Apr-2022, Manuscript No. JP-22-16590 (R); **Published:** 18-Apr-2022, DOI: 10.35248/2329-6887.22.10.367.

Citation: Pretis M (2022) Identification of Quality Control of Drug Product. J Pharmacovigil. 10:367.