

Quality Assurance in the Pharmaceutical Sector

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EDITORIAL

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EDITORIAL NOTE

Quality Assurance (QA) is critical in the pharmaceutical sector for ensuring that pharmaceutical goods are prepared to a safe and uniform standard. QA is a broad term that refers to anything that can affect the quality of a drug during its research, development, manufacturing, and distribution phases. QA specialists are in charge of implementing a variety of methods that help to ensure the quality of a medicine [1]. Because quality assurance is such a vast area, looking at specific examples of how it is applied in practise can be beneficial. Here are a few real-world examples of how quality assurance works so, you can see why it's so vital in the pharmaceutical sector.

A drug that does not work properly or is defective in any way can be hazardous to the public's health. The fundamental purpose of every pharmaceutical company's QA department is to ensure that their medications are safe and effective. To attain this purpose, QA departments employ a variety of approaches and procedures [2-4].

As a result, As a result, Students, for example, learn about good manufacturing processes as part of their quality assurance coursework (GMP). GMP refers to a set of guidelines that drug companies must follow to ensure that their products are produced to a consistent and reliable quality. In Canada, Health Canada inspects medication manufacturing plants to ensure that they are following GMP guidelines. In order for the production plant to be licenced, these inspections are required. These inspections are required in order for the manufacturing facility to be licenced, legally in Canada [5,6]. A quality assurance expert executes GMP-compliant methods at manufacturing facilities, such as calibrating equipment, keeping documentation, and conducting quality testing, to pass the inspection.

Drug stability, for example, is a measure of how consistent a pharmaceutical product's chemical, therapeutic, physical, and other qualities stay over time and under specific conditions. Because drug stability has a significant impact on a medicine's potential safety and efficacy, it is a topic taught in quality assurance courses. A drug that degrades when exposed to diverse environmental conditions could harm patients, which is why quality assurance experts look into whether a drug's chemical qualities alter while stored at a specific temperature. The findings of these investigations may be used to assist drug makers in developing standards for safe and proper drug storage [7].

The general population expects guarantees that the pharmaceutical drugs they use are both safe and effective. The public may lose faith in a pharmaceutical manufacturer's products if they are shown to be in violation of QA regulations, or if they have manufactured a pharmaceutical product that is either harmful or does not work as intended. A QA expert plays an important role in convincing the public that a drug—and, by extension, the drug's manufacturer—can be trusted by ensuring that methods to ensure product quality are in place. As a result, pharmaceutical businesses can preserve their public image, which is critical for their success [8,9].

In the medical field, quality assurance is critical since it aids in the identification of medical equipment and service standards. External agencies are used by hospitals and laboratories to ensure that equipment such as X ray machines, Diagnostic Radiology, and AERB meet certain criteria. QA is especially useful during the development and launch of new medications and medical equipment. Through its members and regulatory organisations, the Research Quality Association (RQA) supports and promotes the quality of research in the life sciences [10].

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