APIs for global & Indian markets: Regulatory perspective

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APIs (Active Pharmaceutical Ingredients) are responsible for the pharmaceutical effect of the formulated pharmaceuticals (medicines). The global market has integrated with the supply chain of pharmaceuticals in the APIs contribution to the corresponding medical needs at the required nations. There has been a significant growth in the quality of reliable API sources to avoid any public health risks. The trend is outsourcing by larger pharmaceutical multinationals who are expected to contribute to the growing demand in the quality of APIs. When it comes to the regulatory perspective in India, the contribution is more significant. As per the last update, the market of APIs is estimated at around US$119.7 billion. It is projected to grow to a CAGR of 6.5% to a value of US$185.9 billion by 2021. The contribution of the Asian countries, especially India, is shared in percentage by India 33%, China 61%, and other nations 6%.

In recent times there has been a drastic cut implemented by the pharma giants to their in-house production of the API. The attributes are measured by poor cost viability and the increased production issue coupled with the other vital parameters like high-end R&D cost, price issues, and the formulations that have resulted in the thrust to outsource API production. However, the growth of the API segment is amplified based on the substantial global upsurge in demand for generic prescription drugs.

The scenario of API is much anticipated to thrive on different evolving results in response to the regulation in the market. The growth opportunities in the manufacturing of APIs are shifted from the local market to the second-in-line emerging markets of India. On getting this overall dominance in the intermediates, the API manufacturing industry is a competitive threat to the Indian counterpart when Chinese players are in true sense in the league. It is much beyond the APIs for the essential drugs.

Evolving regulatory expectations are witnessed

All the medicinal manufactured products containing APIs and excipients are manufactured in Asia. In response to this outside input, North American, European, and Japanese regulators adopted the "International Conference on Harmonisation (ICH) Q7 Good Manufacturing Practice Guidance for Active Pharmaceutical Ingredients," which is based on endemic rules that substantiate and even extend WHO requirements across several areas of accordance.

The GMP regulations differ from country to country. With the compendium "Quality Assurance of Pharmaceuticals," the World Health Organization (WHO) has established a worldwide standardised framework for quality standards - the GMP standards for APIs bulk drug compounds. The holders of the GMP certifications will offer a competent national authority in India to attract the audits of API.

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As a result of this, the Indian API manufacturers exporting to the regulated market now need to prepare to face the GMP audits. It is there for the quality system and manufacturing of the processes. Individuals conduct these sorts of audits through a third-party auditor.

Realising the self-sufficiency of India in API production

There is a realisation that the pharma industry needs to become self-reliant in the production of APIs. It will take time, but once it is realised, the goal will be achieved soon. IPA represents 24 leading research-based drug firms that include Sun Pharma, Cipla, and Lupin. The Indian industry had the know-how on the requirement to produce APIs. The growth of technology is the main motive behind relieving the dependency on China. Once the schemes are activated to cover APIs, India will alone make possible stances to become successful. "The ultimate essential principle in all of this is that the supply chain must be diverse. Every manufacturer cannot rely on a single source of supply. Unfortunately, we have been relying on one source for far too long. We don't have solutions yet, so we'll continue to rely on outside sources until we can develop our capabilities in the future." say experts in this matter.

There are reports that IPA has been in constant touch with the US Food and Drug Administration (USFDA) concerning starting the inspection to carry out the overseas regulation swiftly by India all alone. Though due to Covid 19, there has been a deep-rooted struggle to fight across the globe, it is still on. Concerning the possibility of India being completely self-reliant is a matter that combines virtual and physical inspection that is yet to take place.

The IPA is working closely with the Pharmacy Council of India to update the B Pharm and M Pharm courses' curriculum and syllabus to reflect current industry standards.

Schedule M India

Schedule M of the "Drugs and Cosmetics Rules" contains Indian GMP criteria specified by Indian authorities. Unlike the ICH Q7, which only addresses APIs, Indian GMP laws do not differentiate between GMP for therapeutic goods and GMP for APIs, with Part 1-F including API manufacture.

Several adjustments are made to Schedule M that have since been implemented, while others are still in the works. To provide a level playing field for Indian manufacturers, regulatory bodies promote harmonising Schedule M with the ICH/PICS. Concurrently with the evaluation and modification of Schedule M, it is recommended that the Indian inspection agency's GMP inspection norms will be reviewed and harmonised with worldwide standards to offer the Indian manufacturer the necessary boost on the global stage.

As per the ICH Q7 Guideline and national rules, it must be followed by Indian pharma-

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ceutical businesses exporting to the ICH region. Professional auditors knowledgeable with regulatory authorities in India and global markets can reduce the risk of misinterpretation of recommendations.

India: Import/export requirements

Approximately 14 to 15% of Indian pharmaceutical companies adhere to international standards and export to regulated markets (the US, EU, etc.). For a large number of essential drugs, such as paracetamol, metformin, ranitidine, amoxicillin, ciprofloxacin, cefixime, acetylsalicylic acid, ascorbic acid, ofloxacin, ibuprofen, metronidazole, and ampicillin, India continues to rely heavily on intermediates and APIs from China, and this dependence is detrimental in the long run. All parties are working hard to ensure that India is self-sufficient in bulk pharmaceuticals (APIs) that fulfil international quality requirements. However, necessary steps are already activated.

GMP compliance is critical

Firstly, Failing to create an effective quality management system to pass all quality and regulatory information from the API manufacturer to the formulation maker are two examples of common GMP non-compliance discovered during API audits.

The quality unit also failed to check batch production records before the release of an API batch. There's also a system in place to document production operations as they happen. Furthermore, there is an inability to maintain equipment properly and protect digital data from unwanted access or alterations.

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Furthermore, there is a failure to keep complete data from all laboratory testing. There is also a failure to ensure that equipment is cleaned consistently and efficiently following pre-approved guidelines.

Deviations from GMP can be avoided. Understanding the objective of Indian API GMP, putting in place procedures and systems to fulfill the intent, and having higher levels of commitment from company management and product specialists will go a long way toward ensuring API GMP compliance.

Some positive move from Indian counterparts

The Ministry of Chemicals and Fertilisers and the Government of India (GoI) are taking substantial steps to support this initiative. The Department of Pharmaceuticals (DoP) has formed a task force known as the Katoch Committee to encourage bulk medication manufacturers. To resurrect API manufacturing in the United States, six huge API intermediate clusters are developed in five to six states.

The Katoch Committee's key recommendations are to make adequate land available for API manufacturing with essential infrastructures, such as water, electricity, ETPs/STPs, steam, testing facilities, and so on.

Foreign investment is also formulated along with other assistance. In India, the small and mid-sized API manufacturing sector needs to be strengthened urgently. In addition to financial help, the industry requires modernisation with cutting-edge pharmaceutical technology and training support to achieve global standards. All these are readily processed. ❍

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