OPTIMIZATION OF THE PACKAGING PROCESS ON THE "IBUPROFEN 400 mg" TABLET PRODUCTION LINE

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Relevance. Modern requirements for the quality of medicinal products imply high precision in packaging labeling, especially in mass production. Labeling is a key element in ensuring the identification, traceability, and safety of pharmaceuticals. Improving the efficiency of the labeling process on the production line of "Ibuprofen 400 mg" tablets contributes to reducing the number of defects and increasing production performance.

Objective of the study: To determine the optimal parameters of the labeling process on the packaging line in order to improve the accuracy and stability of information application and reduce the number of defects during the production of "Ibuprofen 400 mg" tablets.

Materials and methods: Evaluation of print quality (clarity, durability), assessment of the speed and stability of the labeling process, and statistical analysis of defect rates and production line speed before and after optimization.

Results: The key parameters influencing labeling quality were identified: labeling speed, print head pressure, and the type of consumables used. After process optimization, the number of defective packages decreased by 25%. The stability of DataMatrix code reading by control scanners improved. Equipment changeover time during batch switching was reduced by 15%.

Conclusions: Optimization of the labeling process significantly improved the stability of the packaging line and the quality of the final product. It is recommended to implement an automatic code verification system and further automate labeling quality control processes to enhance overall production reliability.