## THE WAY OF THE PHARMACEUTICAL INGREDIENTS TO THE FINISHED PHARMACEUTICAL FORM

## Bence Rafael<sup>1</sup>, Nóra Kuruczleki<sup>2</sup>, József Gál<sup>3</sup>

<sup>1</sup>Faculty of Pharmacy University of Szeged, Szeged, Hungary <sup>2</sup>Faculty of Economics and Management, University of Szeged, Szeged, Hungary <sup>2</sup>Faculty of Engineering, University of Szeged, Szeged, Hungary galj@mk.u-szeged.hu

## **Abstract**

The modern pharmaceutical industry is a strictly controlled area. Both national and international rules apply, but none of these deals with logistical issues arising from the manufacture of the product. Following the path of a drug, it is possible to get acquainted with the problems that arise and their solution.

The drug is much more than a common product. The drug is a product of confidence, which is provided with information. It defines its quality as well, to comply with the relevant directives and standards in the manufacture of, and that the enclosed information is sent to the user.

This requires the manufacturer, the distributor and the user to comply with it. There is no production without material handling, but GMP (Good Manufacturing Practice) does not yet have a chapter on logistics. References to handling raw materials and finished products can be found in the corresponding GMP chapters, the responsibility of the correct execution are borne by the manufacturer. In this case, the effect of the common sense prevails exponentially, keep the medicine in mind and it has to be done, that no loss, no quality deterioration is not caused by the transport, handling of such loads, storage.

It is typical that the raw material and the finished product are going through the entire site during the pharmaceutical manufacture. Starting from the warehouse, it runs through the manufacturing facilities, on the packaging, and some units go to the lab, so that eventually, in medicine form returns to the warehouse, from where it goes further in the supply chain through the pharmacies to the patients.

In our study we examine the logistics activity and problems of a small pharmaceutical company and tasks to be solved presented in the light of the theory.

Key words: pharmacy, logistics, GMP, drug