FEATURES OF TWO-DIMENSIONAL ENCODING

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Introduction. Today barcode cannot give a consumer really important information: composition of the product, allergens, specific origin place. These can be found on other parts of package, but more and more customers seek to obtain such information through Internet or mobile phone camera. The need to encode more information on smaller area has led to development, standardization and application of two-dimensional (2D) barcodes. The most widespread are Datamatrix, Data Glyph, Aztec, QR Code et al.

Aim. Study of QR-code application on package of medicines and other products.

Materials and methods: have been analyzed modern types of packages with QR code marking. In the study, we have used systemic and logical methods of analysis.

Results and discussion. QR code — is a 2D barcode, in which the following maximum number of characters is placed, namely: digits - 7089 symbols, numbers and letters (including Cyrillic alphabet) - 4296 symbols. According the DIRECTIVE 2011/62/EU OF EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 amending Directive2001/83/EC on the Community, automated system for tracking drugs in circulation is aimed at preventing counterfeit medicines entering the legal network, and implies a unique identifier labeling of prescription drugs. Thus, in order to identify counterfeit medicines, it is planned to apply a QR code to each package, which includes a unique package identifier - a randomly generated sequence of numbers (random inconsistent numbers are used to prevent forgery). QR code will help to track the circulation of medicines through the chain of a foreign manufacturer - a distributor - a pharmacy and a domestic manufacturer - a distributor - a pharmacy. According to GS1 recommendations, this code should include four standard components: the manufacturer's product code (for example, GTIN or NDC), batch number (series), expiration date and unique serial number (unique packing identifier). The application of a two-dimensional bar code is recommended by the European Federation of Pharmaceutical Industries (EFPIA), its use was tested in a pilot project in Sweden, which allows placing only one code on the packaging instead of two or more.

Conclusions. It should be noted that on the packaging of medicines, including ones of Ukrainian production, QR code has been applied for several years, but without an identifier. Usually, in such cases, advertised information about the manufacturer, the product itself is encoded.