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Innovation > Sport & Fitness > New method prints medicines on edible QR codes

NEW METHOD PRINTS MEDICINES ON EDIBLE QR CODES



Researchers have developed a method for printing individual doses of medication in QR coded patterns onto an edible material.

Advances in health care have seen the advent of increasingly personalized health care, including 3D-printed vitamins and a wearable that personalizes users diets. Now, researchers at the University of Copenhagen and Abo Akademi University in Finland have developed a way to tailor doses of medication to each patient. The team devised a way to ‘print’ medications onto an edible substrate using inkjet printing technology. The drugs were printed in the form of a QR code, which contained information about the drug and the dosage. The drugs can be printed in dosages tailor-made to each patient. Pharmacists or nurses can then scan the QR code to check that the patients are given the correct medication, before the patient pops the printed sheet in their mouth.

Natalja Genina, assistant professor in the Department of Pharmacy at the University of Copenhagen explained that, “This technology is promising, because the medical drug can be dosed exactly the way you want it to. This gives an opportunity to tailor the medication according to the patient getting it.” The researchers demonstrated that the substrate used for the printing held the pattern of the QR code well enough to allow accurate scanning. They are now working to refine the methods to allow for practical use of their system.

The researchers hope that in the future pharmacists will be able to use regular printers to print drugs onto edible ‘paper’. According to Professor Jukka Rantanen, from the University of Copenhagen Department of Pharmacy, “If we are successful with applying this production method to relatively simple printers, then it can enable the innovative production of personalized medicine and rethinking

of the whole supply chain.” It is estimated that, in the UK alone, around GBP 300 million worth of medicines remain unused each year. Printing medications to order could help to reduce that wastage, leading to substantial financial savings. What other ways might printed medicines save money?

26th February 2018

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