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Use of Chipless RFID for Protecting Drug Counterfeit in Upcoming Digital Bangladesh

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Abstract:

Problem of drug counterfeiting is a very severe issue in the healthcare sector that may sometimes become fatal. Drug counterfeiting is increasing day by day because of lack of legal protection and technology to identity the genuine drugs. Also lack of vigilance and advocacy by the healthcare providers as well as the government are the reasons behind the issue. The barcode technology cannot prevent counterfeiting drugs since it can be easily duplicated. Use of Radio Frequency Identification (RFID) could have become the ideal technology to identity genuine drugs; but high unit price of RFID prohibits its use. Recently R&D efforts have helped produce chipless RFID devices, which are cheap and could be used to combat this universal burning issue of the healthcare industry. The chipless RFID devices may easily and cost effectively ensure the drug authenticity and also create an electronic pedigree to record and maintain the chain of custody from the point of manufacture to the point of dispensing of drugs. The pharmaceutical industry in Bangladesh has made an impact on the country's economy and also obtained a position in the international market. Adoption of chipless RFID in anti-counterfeiting may help improve Bangladesh's competitiveness in the global drug market