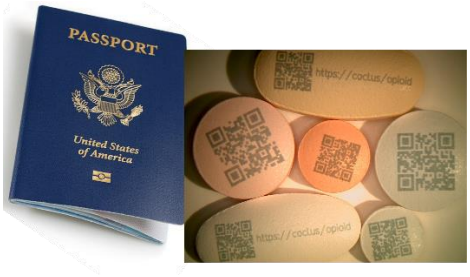

Passport for an Opioid Pill

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Each one of us carries a passport. We use this document to prove our identity as a citizen of a country and to claim our right to, for example, enter a country. A border guard uses a photograph in the passport to verify our identity visually and then reads a stripe on the bottom of the document to get a link for additional information about the holder of the passport. This can involve searching through a variety of databases on national security, immigration, law enforcement etc.

Opioid ID is a passport for an opioid pill. Every pill dispensed using the Opioid ID system will have on one side a picture of the person to whom the pill was prescribed. Just as a picture in a passport, the face printed on the pill allows anyone to visually validate the identity of the person in possession of the pill.

The QR code on the other side of the pill is a link to a comprehensive set of information about the pill. Depending on the level of access allowed, it can provide information on the prescribing physician, dispensing pharmacist, the patient and a wealth of information about the pill itself.

Saving lives

According to the National Institute on Drug Abuse, more than 130 people in the United States die every day from overdoses involving prescription opioids. Some of these overdoses are accidental and many overdose deaths can be prevented with timely action based on the information provided by the Opioid ID. Imagine an emergency responder attending a case of a potential overdose being able to instantly get information about the medication such as date of expiry, doze, ingredients, side effects, compatibility with other medicines, actions to take in case of an overdose, manufacturer's hotline contact, contact information for a prescribing physician, pharmacist and so on. Information provided by Opioid ID can make a difference between life and death.

Taking illegal prescription drugs off our streets

Opioids obtained legally sometimes end up in the wrong hands fueling addition and human misery. Our law enforcement agencies need tools to fight the distribution of illegal prescription medicines on our streets. Opioid ID provides law enforcement with the tools to verify pill ownership in an instant and to be able to validate the source and the provenance of the medication in seconds and without infringing on the legal rights of the public.

How it works

Opioid ID marks every pill at the point of sale. Dispensing pharmacist uses Tri-Star Laser Marking System to print a picture of the patient on one side of the pill and a QR code to the identity record for the pill on the opposite side of the pill. All relevant information is associated with the pill is recorded on the Opioid ID Blockchain; a secure distributed database based on the most advanced cryptographic technology. Private information about the patient

is neither captured nor stored ensuring full compliance with today's stringent privacy and security regulations. However, patients can optionally have a link for requesting access to their vital emergency information associated with the pill identity record.

In a multi-patient household, patients can easily get confused and mix up the medication. The picture on the pill gives an instant clue who the pill belongs to, and, by simply scanning QR code on the pill with a smart phone, patients can get all of the prescription details including those found on the pill container like doze, "take with food" etc. and a wealth of additional information that is typically on the container. It is like having your own personal pharmacist at the press of a button.

Paramedics responding to possible overdose cases can ascertain if the drugs found on the patient were actually prescribed to the patient by simply looking at the picture on the pill. They can also scan the QR code on the pill to get instant access to the lifesaving information about the drug. In addition, paramedics can register discovery of illegal pills to help fight prescription drug abuse in the system.
Law enforcement officers can ascertain if the person is legally possessing the drugs by looking at the picture on the pill. If the person in possession of the prescription drugs was indeed prescribed the medication, further investigation can be done instantly and rogue prescriptions or dispensing cases can be followed up, investigated and prosecuted.

Why Opioid ID Blockchain:

Opioid ID system is an investigative collaboration project between Tri-Star Technologies and IBM. It is based on a combination of leading technologies for laser marking of pharmaceutical products and blockchain for secure storage and management of sensitive information. Opioid ID system relies on blockchain, a distributed data management technology, that provides unparallel level of data protection. Unlike centralized databases, blockchain technology distributes trust among participants of the blockchain making it virtually impossible to break into the system or for any participant to modify records even when colluding with several other participants. This means that neither organized crime nor corrupt officials at any level of participating organizations are able to alter records or gain access to information.

Blockchain technology is inherently distributed technology that naturally resists single party control and ownership. Most blockchain projects belong to and are run by the participants typically organized and collaborating as a consortium. Tri-Star Technologies and IBM are looking to partner with other participants in the pharmaceutical ecosystem, local, state and national governments, and law enforcement agencies to further develop and deploy the Opioid ID system to address the growing epidemic of opioid abuse.

Interested to learn more? Please visit us at https://cocl.us/opioid