Drug diversion surveillance dashboard

Duke File (IDF) Number

IDF #:T-006536

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External Link(s)

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Value Proposition

Prescription drug diversion is defined as the illegal distribution or misuse of prescription medications. Drugs that are susceptible to abuse and addiction in at-risk individuals are commonly involved. In the light of nationwide opioid crisis, the surge in demand for drug diversion surveillance and monitoring of medical practitioners who have access to controlled substances in the course of their professional activities drove the attention to healthcare automation and analytics systems. Current systems still have multiple vulnerabilities that continue to allow diversion due to many other factors involved in the process of drug transfer – such as practitioner and system practice patterns, continually rotating medical trainees and service reports that require a significant interpretive effort by supervisors. The need for robust monitoring systems incorporating multiple factors predicting drug diversion is essential to ensure accurate alerting of aberrant incidents.

Technology

This invention presents a new system and methodology to improve current surveillance methods and aims to incorporate multiple complexities of drug diversion monitoring. Using machine learning, statistical methods, and mathematical models, the described surveillance system involves provider, patient, procedure and drug information to better predict and identify cases that are concerning for drug diversion. More accurate prediction of diverters' behavior patterns for identification of potential drug diversion cases can help overcome surveillance on trainees with chaotic work patterns that often escape the radar of traditional monitoring methods.. This working prototype proves a clear application of new-age data analytics in solving real-world problems.

Advantages

- Aggregation of multiple relevant data sources
- Seamless connection and compatibility to existing operational platforms
- Using cutting-edge data science techniques to analyze behavior patterns including complicated work schedules of rotating medical residents
- Clear, easy-to-understand presentation of critical metrics on users' dashboard for easier diversion investigations
- Real-time surveillance and monitoring allow prospective tracking and reporting