Risk of Heroin Overdose Due to Prescription Opioids

Rate of Hospitalization due to Heroin Overdose

Inpatient hospitalizations due to heroin overdose have doubled between 2013 and 2015.

Out of 396 heroin overdose patients, 363 had been prescribed opioids and filled their prescriptions (2013-2015).

Time to Heroin Overdose After Prescription Opioids Ended

Once patients stopped prescription opioids, heroin overdose occurred after 6 months on average (median 5 months).

Past misuse of prescription opioids is the strongest risk factor for starting heroin use.

Approximately, three out of four heroin users report having abused prescription opioids prior to using heroin.

In 2015, the majority of opioid related deaths (63%) in Wisconsin involved prescription opioid drugs.

Hazard Ratios By Risk Factors of Heroin Overdose among Prescribed Opioid Recipients

- Hospitalized after opioid Rx ended: 10.6
- Rate of hospitalization due to heroin overdose is 10.6 times higher after prescription opioids ended.

- Received 90MME: 2.99
- Patients who were prescribed opioids more than 90 Morphine Milligram Equivalent (MME) were at higher risk of heroin overdose--2.99 times higher.

- Male: 3.63
- Compared to females, Males have higher risk of heroin overdose--3.6 times higher.

- Kidney Disease Comorbidity: 5.64
- Co-morbidity of kidney disease increases the risk of heroin overdose by 5.66 times.

- Tapering*: 0.80
- Patients whose medication levels were not tapered had an increased rate of heroin overdose of 1.25 after controlling for other conditions.

* Compared to the increased dosage of opioid prescription

Source: Centers for Disease Control and Prevention (CDC): Prescription Opioid Overdose Data. Health Outcomes of Opioids Surveillance System, Wisconsin Prescription Drug Monitoring Program Data and Hospital Discharge Data