The Consequences of Addiction: Associated Infectious Diseases

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Alice C. Thornton, M.D.
Source of Infection

- Nonsterile equipment
- Unsterile injection practices
  - Water, skin prep, licking needles, etc.
- Narcotic solutions themselves
- Washing drugs out of the syringe with own blood
- Broken needle tips- some use 20-30x
- Own skin flora
- Malnutrition
- Poor living conditions

Infections Associated with Injection Drug Use

• Skin/Soft Tissue: cellulitis (#1), abscess(#2)
• Endocarditis-heart (life time prevalence in this group-10%)
• Thrombophlebitis/Endovascular complications
• CNS infections or strokes
• Bone and Joint Infections
• Viral Infections: Hepatitis A, B,C and HIV

Kay, Ear Nose Throat J, 1996 Oct, Vol 75(10) 670-6
Increases in Hospitalizations from Associated Infections

• Retrospective data – Nationwide Inpatient Sample (NIS) – represents 20% of all US hospitalizations
• Trends in rates of serious infection and the associated costs related opioid abuse/dependence and associated infections resulting in hospitalizations.

Diagnosis of Opioid Associated Infections: 2002 versus 2012

• Increase in hospitalizations: 301,707 vs. 520,275
• Endocarditis: 1.5 fold increase
• Osteomyelitis: 2.2 fold increase
• Septic arthritis: 2.7 fold increase
• Epidural abscess: 2.6 fold increase

Costs

• Medicaid was most common payer
• Costs tripled between 2002 ( $4.57 billion) and 2012($14.85 billion) for opioid use DO
• Opioid related infection (ORI) admissions more than tripled
  – 2002 ($190.68 m) vs 2012 ($700.66m)
  – 2012: Opioid abuse/hospitalization was $28,543 vs ORI/hospitalization was $107,217

UK Healthcare Impact

• 2017 patient encounters with any opioid diagnosis:
  – 1,792 inpatient, 579 ED, 136 observation bed
  – Represents 5% of the total patients admitted
  – UK ID adult inpatient services (except transplant), 50% of all ID consults are IDU related
Counts at Risk for HIV Outbreak As a Result of HIV Drug Use

- Bluegrass Care Clinic Service Area
- Location of the Bluegrass Care Clinic
- PWID Diagnosed with endocarditis
- Counties vulnerable to rapid spread of HIV
Diagnoses of HIV Infection among Persons Who Inject Drugs, by Sex and Race/Ethnicity, 2016—United States and 6 Dependent Areas

Note. Data for the year 2016 are preliminary and based on 6 months reporting delay. Data have been statistically adjusted to account for missing transmission category. Hispanics/Latinos can be of any race.

HIV Diagnoses Among Persons Who Inject Drugs, by Region and Race/Ethnicity
2016—United States and 6 Dependent Areas

Note. Data for the year 2016 are preliminary and based on 6 months reporting delay. Data have been statistically adjusted to account for missing transmission category. Data exclude men with HIV infection attributed to male-to-male sexual contact and injection drug use.

Hispanics/Latinos can be of any race.

Downstream Consequences

• Costly both financially and in terms of life
• Can be lifelong: major heart surgery, stroke, loss of family, etc.
• Need innovative strategic approaches
  – Surveillance role for ID associated with OUD - no health system to monitor
  – Loan forgiveness for MAT
  – Syringe access programs
  – MAT
  – Decrease in Stigma