

Management of the Injection Drug User with Serious Infections

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Overview

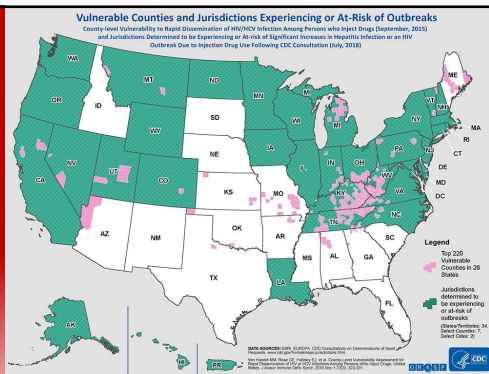
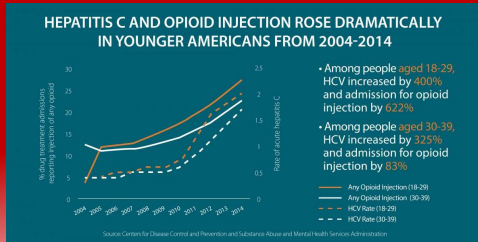
- Epidemiology
- Risk factors
- Spectrum of infections
- Barriers to administering care
- Prognosis

Scope of the Problem

- 13 million Injection Drug Users (IDU) worldwide
- 1.7 million IDU living with HIV
- 67% of IDU have Hepatitis C

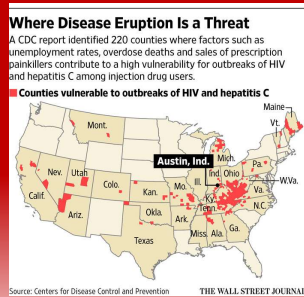
www.who.int/hiv/topics/idu/about/en. Accessed 11-11-18

Young people and IDU



Human Immunodeficiency Virus

Scott County, Indiana



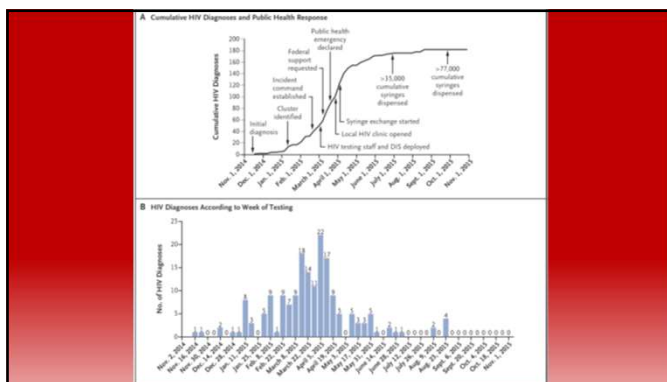
Scott County, Indiana

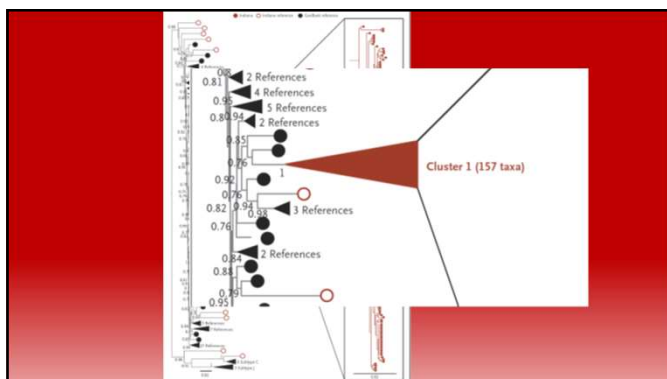
- Scott County population of ~15,000 adults
- Only 5 HIV infections from 2004 to 2013
- 11 diagnosed in 3 months in 2014 -2015
 - All had injected oxycodone



Injection practices

- Me and the lady [syringe exchange program counselor] had a miscommunication. She was like, "How many time do you do a pill a day?" And, I was like, "well, 5 or 6." She was thinking 5 or 6 times I'd stick myself. And see, she didn't ask me how many times I stick myself. She asked me how many pills I do a day. And, so that worked out a lot different when she figured [multiple injections per injection episode], you know, ok 5 times 7 is 35 rigs. You know, 35 needles.

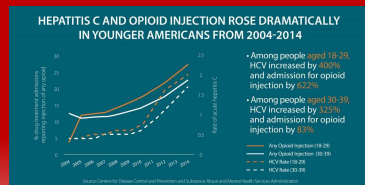




Hepatitis C Virus

HCV and IDU

- IDU most common risk factor for HCV
 - 70% of all infections are IDU
- More common in young people



HCV and IDU

- Total percentage IDU

By IDU frequency (Drug use, days)			
10,000+ persons (n=10,000)			
	CDCU-1	CDCU-2	CDCU-3
Person IDU age	10,000	10,000	10,000
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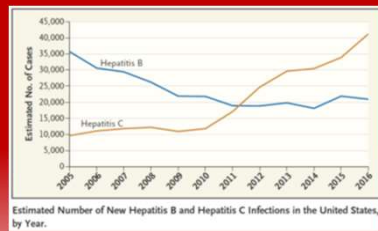
- Duration of use

By IDU frequency (Drug use, days)			
10,000+ persons (n=10,000)			
	CDCU-1	CDCU-2	CDCU-3
Person IDU age	10,000	10,000	10,000
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- Frequency of injection

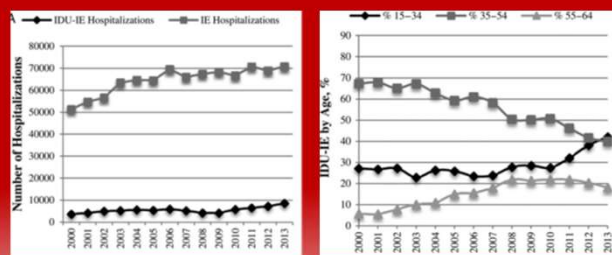
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HCV and IDU



Luong et al. NEJM. 378 (13). 2018

Endocarditis



Wurzel et al. Open Forum Infectious Diseases 2016.

Lasagna or Endocarditis?



Endocarditis

- Treatment is several weeks of intravenous antibiotics
- Challenges of surgery
 - Rehab
 - Recovery
 - Counseling
 - Redo?
- Cardiac dysfunction

TREATMENT

Treatment Options

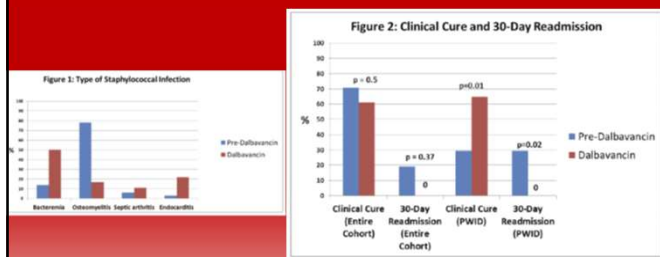
- Inpatient intravenous antibiotic use
- Outpatient intravenous antimicrobial therapy
- Oral therapy
- Extended duration intravenous therapy
- Medical Respite Care

Treatment options – Inpatient IV rx

- Expensive (\$40,000 or more)
- Inconvenient
- Restrictive
- Resource intensive



Treatment Options – extended duration IV rx



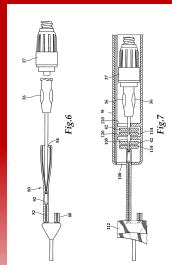
Treatment Options - OPAT



- Perceived barriers
 - Compliance
 - Mortality
 - Complications
 - Enticement to use

Treatment Options – OPAT

- Tamper resistant PICC lines



Treatment Options – Oral Therapy

- Combination of appropriate drug for the appropriate target
- High bioavailability
- Consider site of infection

Treatment Options - OPAT

- Substance Abuse counseling
- Behavioral Assessment
- Mental health comorbidities
- Opioid dependence

Syringe Exchange Programs

Sharing needles can get you more than high...
it can get you HIV and Hep C.



Use clean needles.
Get them at the health department.



AREAS WITH SYRINGE EXCHANGE PROGRAMS - UNITED STATES, JULY 2009



