

# Outcomes of Patients Who Inject Drugs Receiving Treatment for Serious Infections: A Chart Review

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## Main findings

Patients with infectious complications of IV drug injection present challenges in the hospital setting:

- Many did not have stable housing and relied on Medicaid.
- About half of patients readmitted for same infection; more patients relapsed than were cured.
- Several patients left against medical advice for various reasons.
- Discharge addiction treatment was often not discussed or left to patient's initiative.
- Few patients discharged with PICC lines, but none had suspected outpatient misuse or adverse events.
- Baseline data analysis informs interventions in proposed and pursued in a new care model.

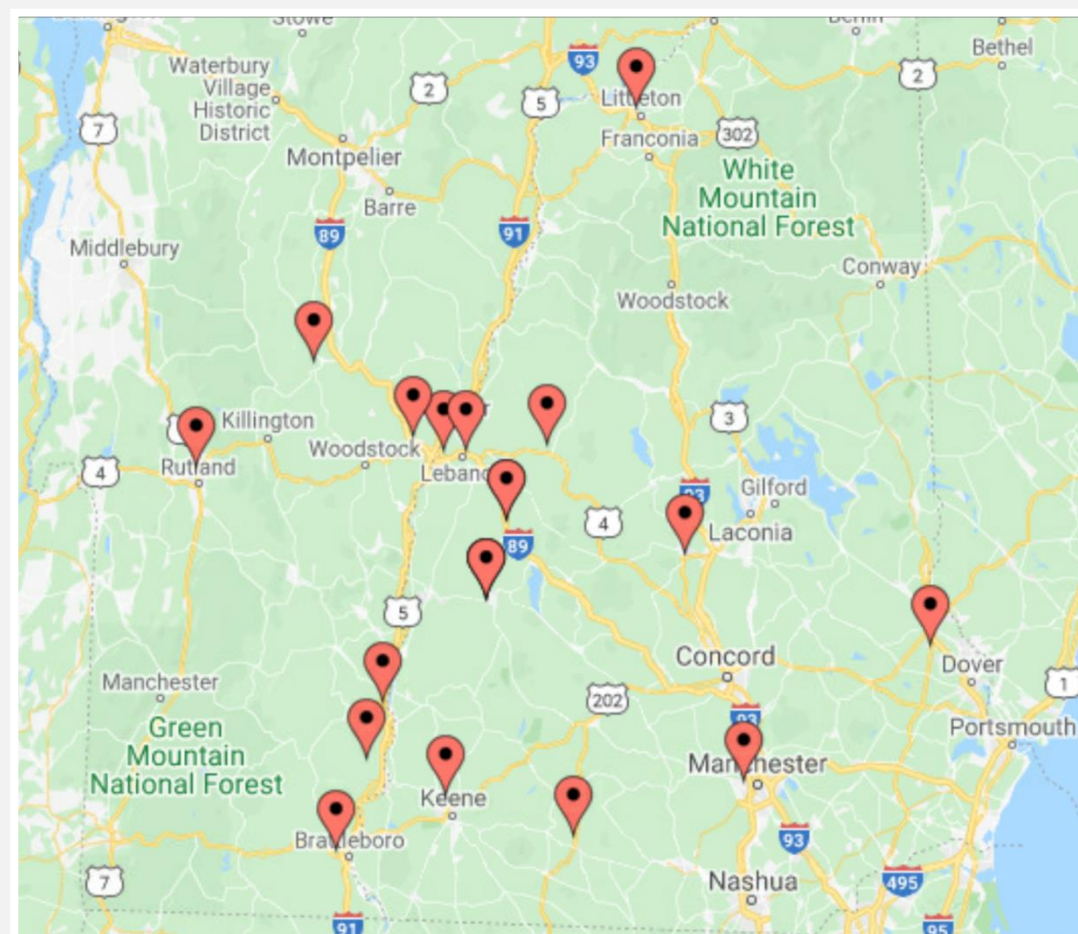
## Overview

- The opioid epidemic has increased the need for better care models.
- Infectious Disease at DHMC is creating a new care model to provide individualized, multidisciplinary treatment for treating addiction and serious infections secondary to intravenous drug use (IDU) in an outpatient setting.
- Patients who inject drugs (PWIDs) are often excluded from outpatient IV antibiotic therapy (OPAT) programs largely due to theoretical concerns of misuse of venous access catheters.
- To establish a baseline understanding of health outcomes, we conducted a chart review of PWIDs.
- Baseline data on health outcomes will inform the new care model.

## Selected Results

### Overview

- 22 patients, 40 events
- **Average age:** 39 years old (22 – 66)
- **Females:** 8, Males: 14
- **Race:** White (n=21, one unspecified)
- **Employment:** 18 experienced job insecurity or were unemployed (n=11)
- **Education:** Available for 6 records (not beyond 'Some college')
- **Housing:** 12 were chronically homeless or unstably housed; 8 had permanent housing
- **Insurance:** Amerihealth (5), Beacon Health Strategies (6), Medicaid/Medicare (12), Correctional Facility (1)



### Was the patient previously admitted for a prior infection?

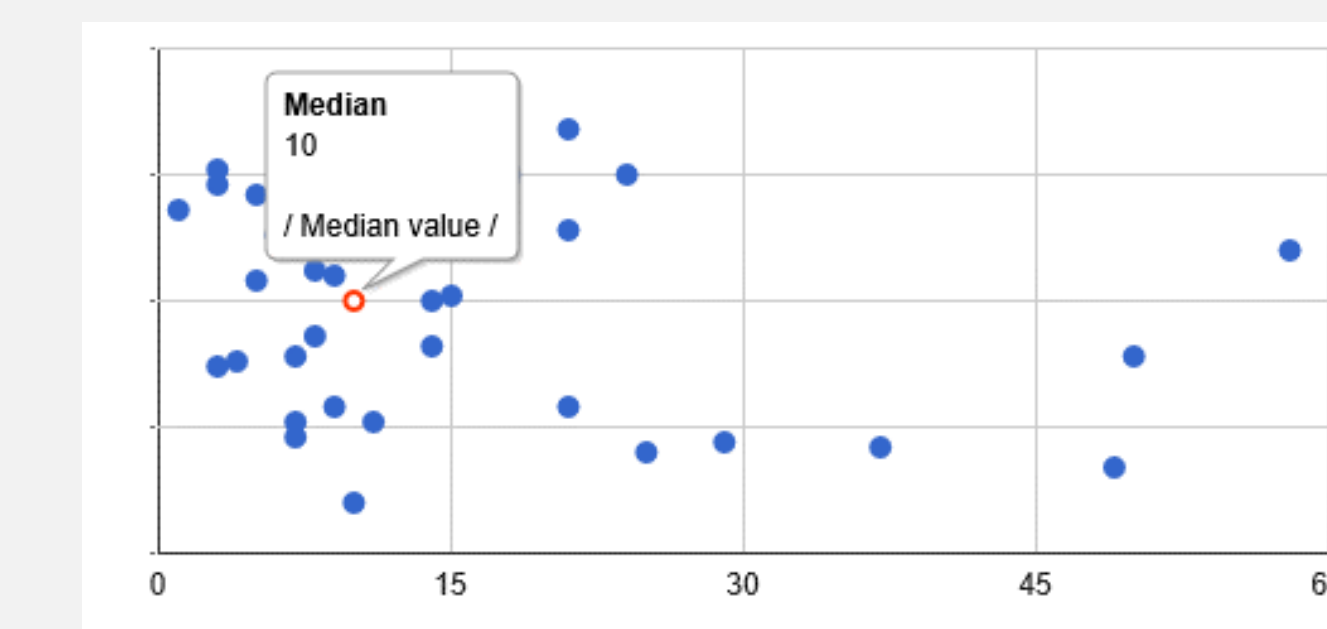
#### admission for a prior infection

- **Causes of prior infection:**
  - MRSA: 13
  - MSSA: 2
  - Other: 4

### Reason for hospital admission

Variables	N = x
Chest pain	5
Fever	10
Chills	9
Back pain	10
Cough	5
Pain (other)	12

### Length of stay



- Mean: 15
- Median: 10
- Range: 1 – 58 days

### What infection type is being treated?

Infection Type	Counts/frequency
Bacteremia	28 (71.8%)
Other	18 (46.2%)
Osteomyelitis	13 (33.3%)
Endocarditis	11 (28.2%)
Muscular & soft tissue abscess	6 (15.4%)
Septic arthritis	6 (15.4%)
Discitis	6 (15.4%)
Spinal epidural abscess	4 (10.3%)
Septic thrombophlebitis	2 (5.1%)
Cellulitis	2 (5.1%)

### Medical conditions experienced by patient other than substance use disorder:

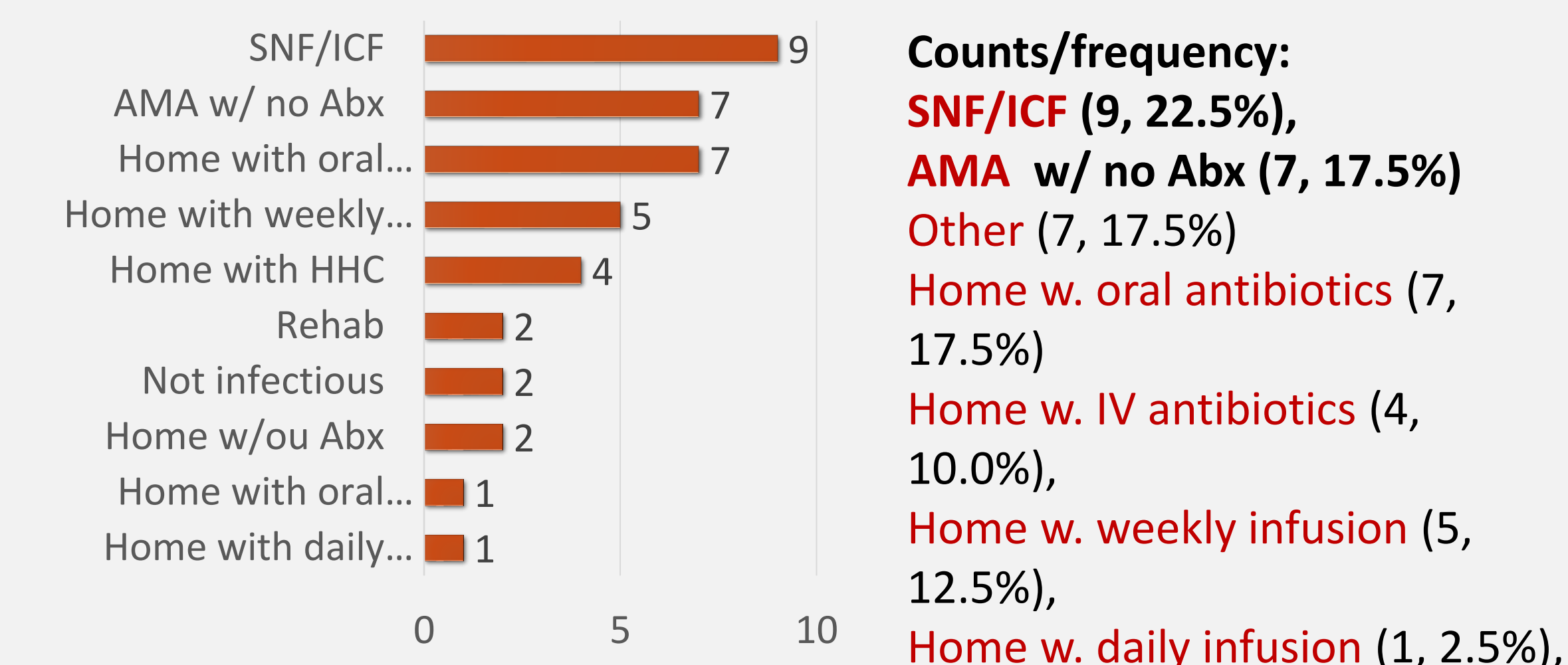
- Additional psychiatric conditions:**
  - Depression NOS (17, 42.5%)
  - Anxiety NOS (15, 37.5%)
  - Other (10, 25.0%)
  - ADHD (9, 22.5%)
  - None (9, 22.5%)
  - Post-traumatic stress disorder (6, 15.0%)
  - Bipolar disorder (1, 2.5%)
- Comorbidities or co-occurring illnesses:**
  - Hepatitis C (29, 72.5%)
  - Other (22, 55.0%)
  - Hypertension (9, 22.5%)
  - Diabetes (5, 12.5%)
  - Cancer (3, 7.5%)
  - Cirrhosis (1, 2.5%)

### Did the patient leave against medical advice (AMA)?

29% patients left AMA for various reasons:

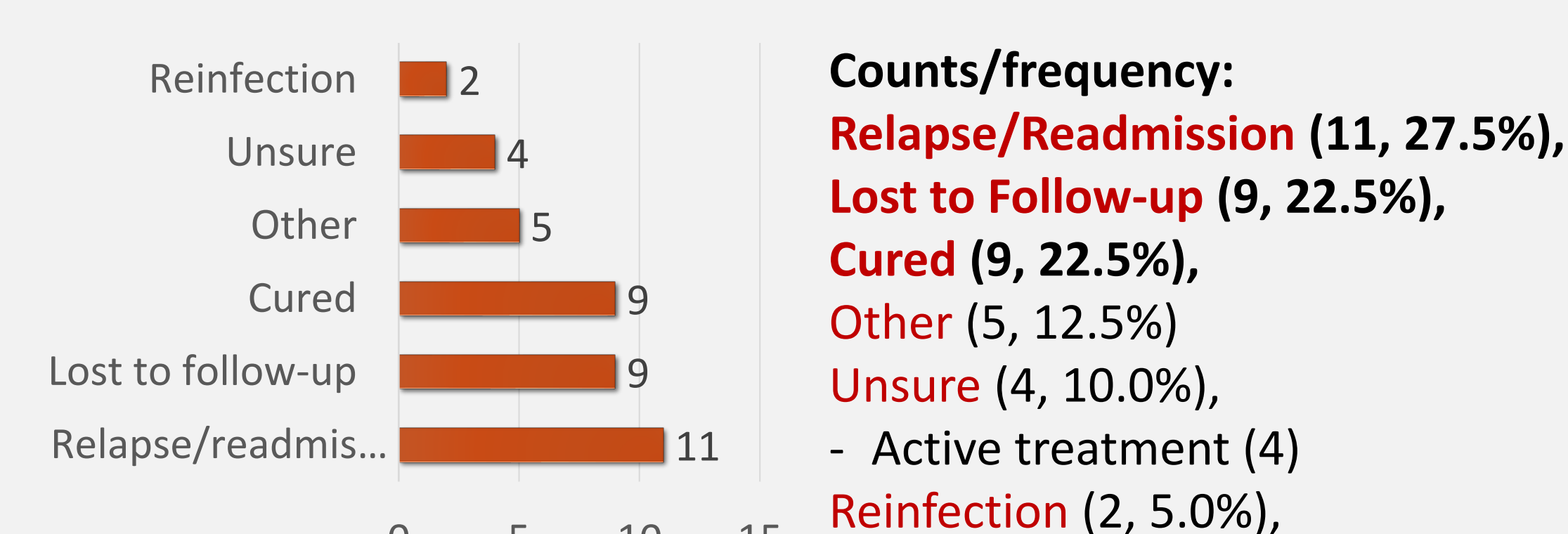
- Wanted to smoke outside
- Had "things to take care of"
- Experienced anxiety
- Felt uncomfortable
- Felt unsafe and anxious
- No clear reason (4)

### Discharge Location



### Naloxone prescribed only during one of the discharges

### Outcome of infection treatment



### Was the patient readmitted after discharge?

About half of patients were readmitted after discharge. Next readmission occurred within:

- Mean: 54 days
- Median: 29 days
- Range: 0 – 290 days

## Methodology

A chart review of twenty-two patients (forty illness events) was performed over Summer 2020 within the Dartmouth-Hitchcock Medical records. Patients were identified by ID-OPAT team members.

- **Study period parameters:** Admissions occurred from 1/2018 – 8/2020, PWID experiencing a serious infection was followed from discharge to six months out, or until next admission.
- 83 data fields were identified and created in RedCap, including but not limited to:
  - Percentage of patients who leave the hospital against medical advice
  - Length of stay (LOS)
  - Infection relapse
  - Re-infection
  - Hospital readmissions
  - Self-reported opioid use and injection drug use
  - Retention in treatment for substance use disorder
- Records were manually reviewed by A.C.; data were entered into RedCap survey created by A.C. and C.K. and then analyzed.

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