



EXCEPTIONAL CARE. WITHOUT EXCEPTION.



School of Medicine



Clinical Addiction Research and Education

# Case-Based Addiction Medicine Teaching

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# Overview

## Medical Complications Case Scenarios:

1. The Febrile ED Patient
2. Painful Cellulitis and IDU
3. Spice



# Case Presentation 1

## (morning report)

A 31 year old man presents to the ED “feeling sick”

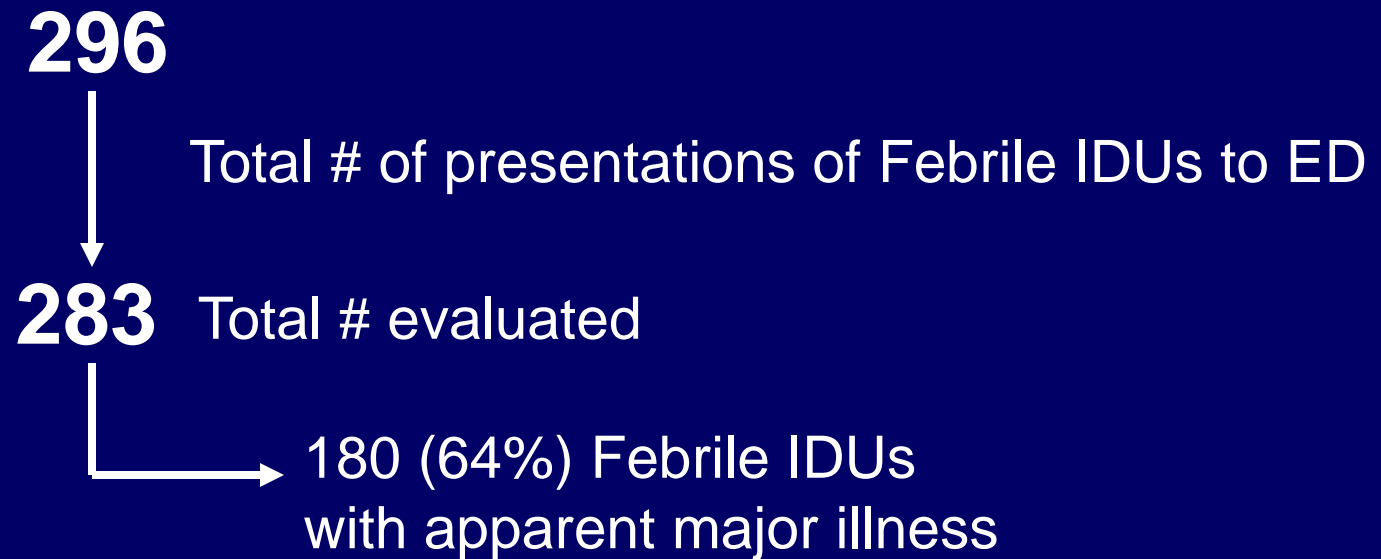
- Recent injection heroin use
- Symptoms - myalgias, weakness, cough
- No history of TB or HIV
- PE – T: 101.2°F
- No cardiac murmur, non-tender abdomen
- Labs - WBC 12,000 with normal differential
- Urine-trace protein

# Case Presentation 1

What is your next step after sending blood cultures?

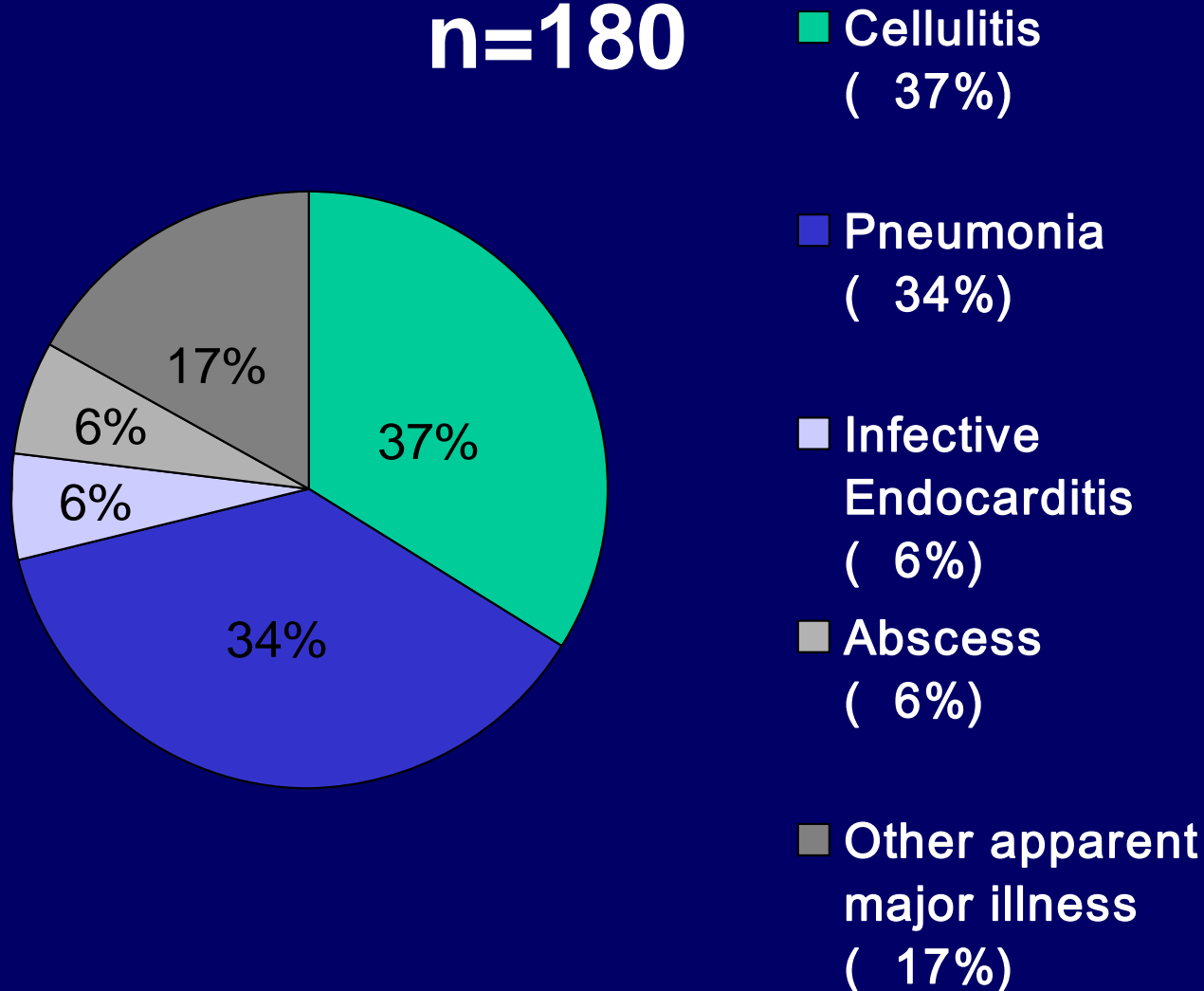
- A. Discharge with antibiotics
- B. Discharge without antibiotics
- C. Hospitalize and treat with antibiotics
- D. Hospitalize but do not initiate antibiotics

# Febrile IDUs-Presentation to Boston City Hospital ED 1/88-1/89



# Major Illness at Presentation

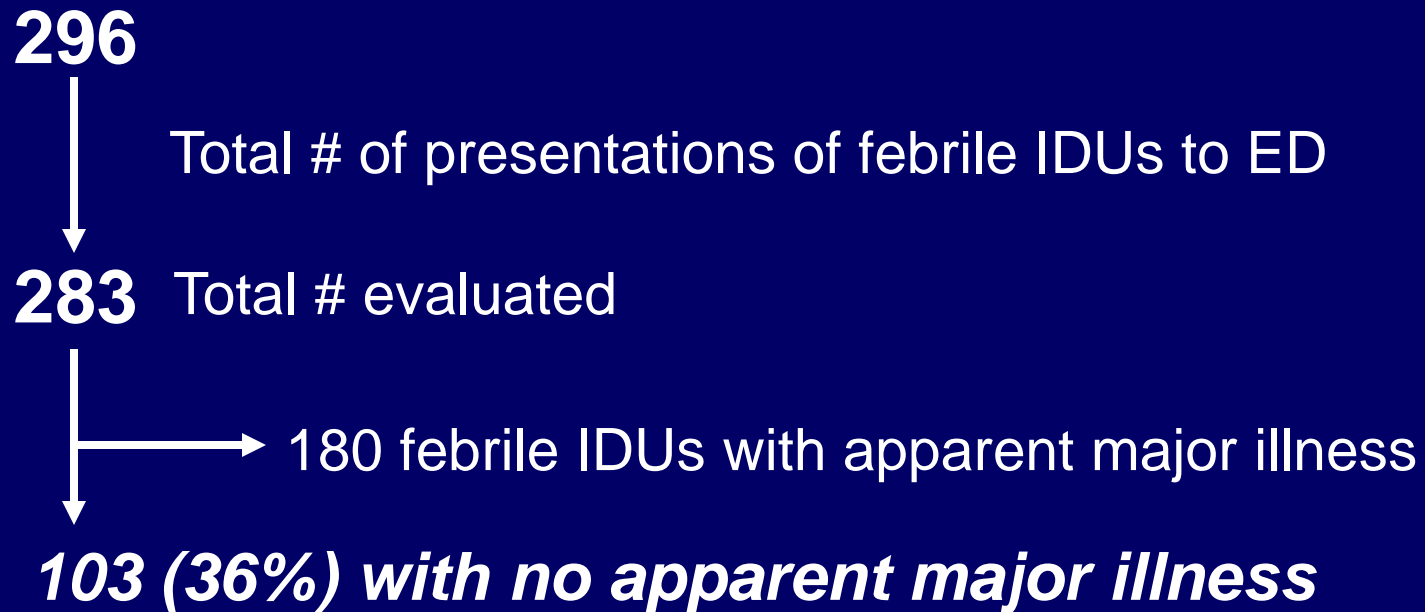
n=180



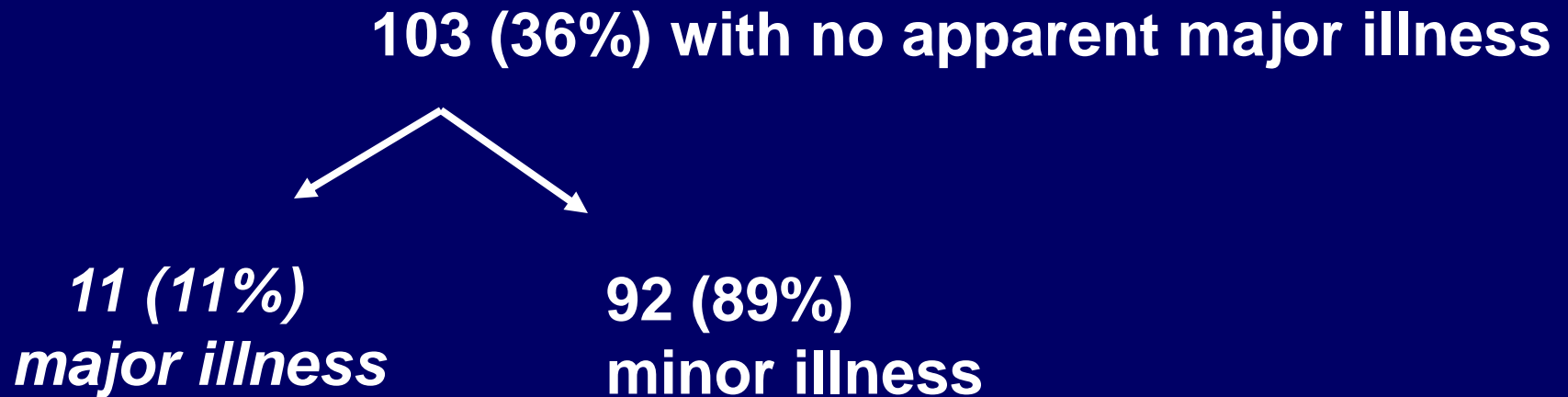
Samet JH, Shevitz A, Fowle J, Singer DE. *Am J Med.* 1990;89:53-57

Marantz PR, Linzer M, Feiner CJ, et al. *Annals Intern Med.* 1987;106:823-828.

# Febrile IDUs-Presentation to Boston City Hospital ED 1/88-1/89



# Febrile IDUs-Presentation to Boston City Hospital ED 1/88-1/89





# Diagnosis of Patients with Occult Major Illness

Patient	Diagnosis	Bacteremia
1	Infective Endocarditis	Group G $\beta$ -hemolytic streptococcus
2	Infective Endocarditis	Staphylococcus aureus
3	Infective Endocarditis	Staphylococcus aureus
4	Infective Endocarditis	Staphylococcus aureus
5	Infective Endocarditis	Staphylococcus aureus
6	Infective Endocarditis	Staphylococcus aureus
7	Infective Endocarditis	Staphylococcus viridans
8	Pneumonia	None
9	Pneumonia	None
10	Disseminated intravascular coagulation	None
11	Deep venous thrombosis	None



# Case Presentation 1

## Outcome

-- Recent injection heroin use  
- Myalgias, weakness, cough  
- PE – T: 101.2°F  
- No cardiac murmur  
- non-tender abdomen  
- WBC 12,000 with normal differential  
- Urine-trace protein

- Tests
  - Chest x-ray-normal
  - Blood cultures negative after 24-hrs.
- Assessment/Plan
  - Diagnosis-Viral Syndrome
  - Patient discharged home
  - Referred for addiction counseling

# Febrile IDUs- Recommendations

- No combination of clinical characteristics effectively identified the febrile IDU with inapparent major illness.
- The hospitalization decision in febrile IDUs rests primarily on the need for patient follow-up after blood culture results are known.
- If follow-up is not possible, the patient should be hospitalized.



# Case Presentation 2

36 year-old male with active IDU and right arm cellulitis and abscess

- Presents with chief complaint of “terrible pain” 10/10



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- Given methadone for opioid dependence; little relief of pain. 9/10



## Case Presentation 2

36 year-old male with active IDU and right arm cellulitis and abscess

- Presents with chief complaint of “terrible pain” 10/10
- Given methadone for opioid dependence; little relief of pain 9/10
- Abscess I&D; Still reports 6/10 pain and wants narcotics meds for pain relief

# Physician Management of Opioid Addiction

## Methods:

- Study conducted June - December 1997 on the inpatient internal medical service of a public urban teaching hospital
- Participants: 8 inpatient physician teams and 19 patients actively engaged in illicit injection drug or crack cocaine use (primarily opioid use).
- Exploratory qualitative analysis of data on the relationship from direct observation of patient care interactions and interviews with illicit drug-using patients and their physicians.

# Physician Management of Opioid Addiction: 4 Themes

## 1. Physician Fear of Deception

Physicians question the “legitimacy” of need for opioid prescriptions (“drug seeking” patient vs. legitimate need).

*“When the patient is always seeking, there is a sort of a tone, always complaining and always trying to get more. It’s that seeking behavior that puts you off, regardless of what’s going on, it just puts you off.”*

-Junior Medical Resident



# Physician Management of Opioid Addiction: 4 Themes

## 2. No Standard Approach

The evaluation and treatment of pain and withdrawal is extremely variable among physicians and from patient to patient. There is no common approach nor are there clearly articulated standards.

*“The last time, they took me to the operating room, put me to sleep, gave me pain meds, and I was in and out in two days. . . . This crew was hard! It’s like the Civil War. ‘He’s a trooper, get out the saw’ . . .”*

-Patient w/ Multiple Encounters

# Physician Management of Opioid Addiction: 4 Themes

## 3. Avoidance

Physicians focused primarily on familiar acute medical problems and evaded more uncertain areas of assessing or intervening in the underlying addiction problem-particularly issues of pain and withdrawal.

### Patient/Resident Dialog

Resident: "Good Morning"

Patient: "I'm in terrible pain."

Resident: "This is Dr. Attending, who will take care of you."

Patient: "I'm in terrible pain."

Attending: "We're going to look at your foot."

Patient: "I'm in terrible pain."

Resident: "Did his dressing get changed?"

Patient: "Please don't hurt me."

# Physician Management of Opioid Addiction: 4 Themes

## 4. Patient Fear of Mistreatment

Patients are fearful they will be punished for their drug use by poor medical care.

*“I mentioned that I would need methadone, and I heard one of them chuckle. . .in a negative, condescending way. You’re very sensitive because you expect problems getting adequate pain management because you have a history of drug abuse. . .He showed me that he was actually in the opposite corner, across the ring from me.”*

-Patient

# Physician Management of Opioid Addiction

- Medical care of opioid withdrawal requires physicians to simultaneously:
  - Treat acute medical problems
  - Manage pain and withdrawal
  - Recognize that the addiction has often caused physical and psychosocial devastation



# Case Presentation 3

- 29 yo male presented to ED for annual EKG required by methadone clinic
- Denied any recent drug use
- Intermittent SOB and palpitations



# Case Presentation 3

- 29 yo male  
- 100 mg  
methadone/day  
- SOB and  
palpitations

- Pulse: 120
- PA O<sub>2</sub> 88% on RA
- CTPA negative for PE, but showed diffuse nodular tree-in-bud opacities
- Treated for atypical pneumonia - azithromycin



# Case Presentation 3

- 29 yo male
- 100 mg methadone/day
- SOB and palpitations
- CTPE negative for PE
- Reported spice use

- Admitted to medical student on day 2 to smoking spice for past several months
- Synthetic cannabinoids can lead to tachycardia
  - However, unclear relationship to pulmonary condition

# Synthetic Cannabinoids (Spice)



- Full cannabinoid agonist (THC - partial agonist)
- Synthetic compounds are added to dried, shredded plant material

## **Route of administration:**

- Inhaled (smoked)
- Ingested (tea infusion)

**Duration: 0.5 to 6 hours**



# Symptoms

## Desired Effects:

- Elevated mood
- Relaxation
- Increased appetite
- Altered perception

## Adverse Effects:

- Dry mouth
- Palpitations/tachycardia
- Difficulty thinking
- Memory disturbance
- Severe agitation
- Anxiety/psychosis
- Seizures
- Acute renal failure

# Assessment and Treatment

<b>Urine Drug Test</b>	Not detectable
<b>Treatment</b>	Benzodiazepines, occasionally low-dose antipsychotics
<b>Long-Term Effects</b>	Very limited data

# Case-Based Addiction Medicine Teaching: Conclusions

Case-based discussions of drug abuse related disorders can be both evidence-based & provide an opportunity to address the systems and individual approaches to the medical care of drug users.