Case-Based Addiction Medicine Teaching

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Overview

Medical Complications Case Scenarios

1. The Febrile ED Patient
2. Chest Pain and Cocaine
3. Painful Cellulitis and IDU
4. Patient-Physician Interactions about Analgesia

Case Presentation 1
(morning report)

A 31 year old man presents to the ED "feeling sick"

- 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

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(morning report)

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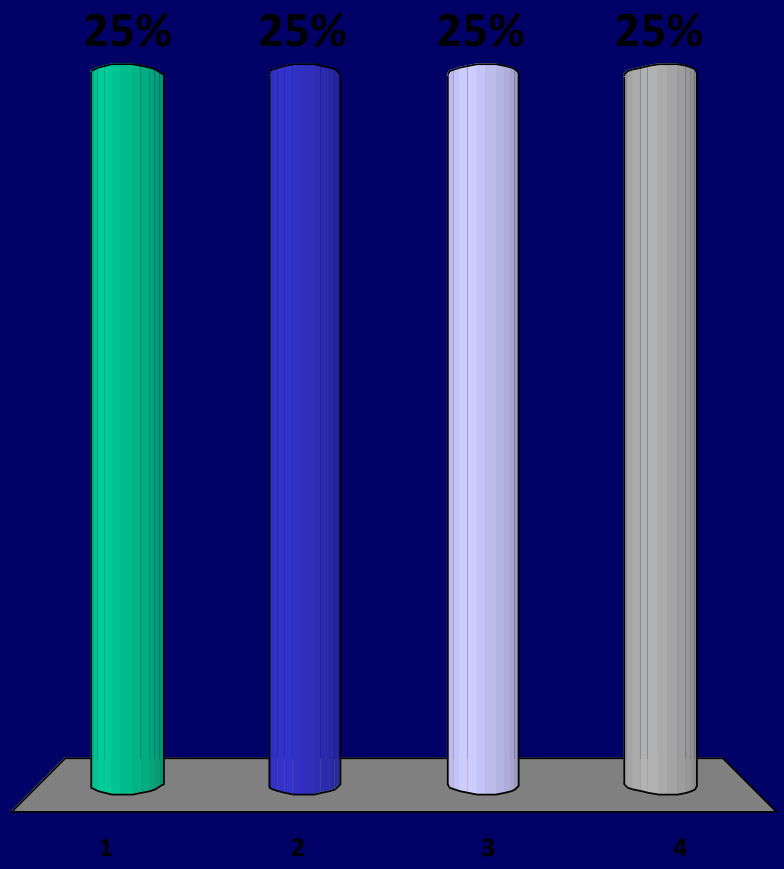
- PE – T: 101.2°F, fresh and old track marks
- No cardiac murmur, non-tender abdomen
- Labs - WBC 12,000 with normal differential
- Urine-trace protein
- 10 year history of injection heroin use
- 6 month history of increasing cocaine use

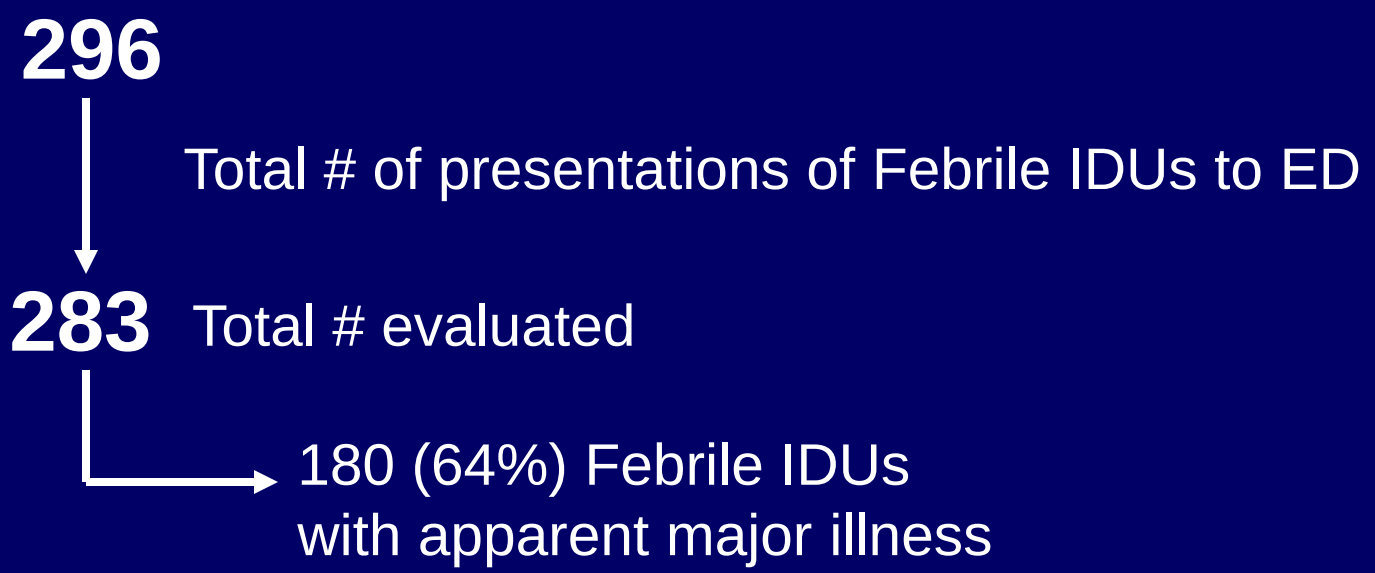
Case Presentation 1

What is your next step after sending blood cultures?

1. Discharge with antibiotics
2. Discharge without antibiotics
3. Hospitalize and treat with antibiotics
4. Hospitalize but do not initiate antibiotics



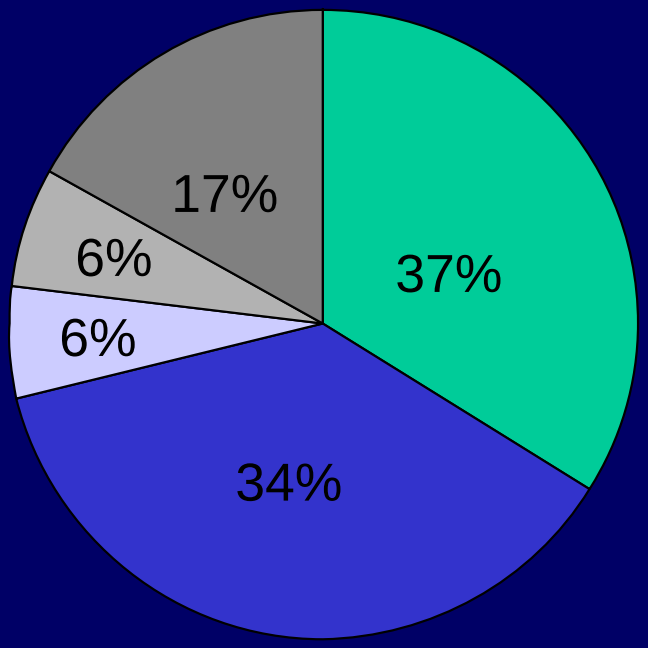
Febrile IDUs-Presentation to Boston City Hospital ED 1/88-1/89



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

Major Illness at Presentation

n=180



- Cellulitis (37%)
- Pneumonia (34%)
- Infective Endocarditis (6%)
- Abscess (6%)
- Other apparent major illness (17%)

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.

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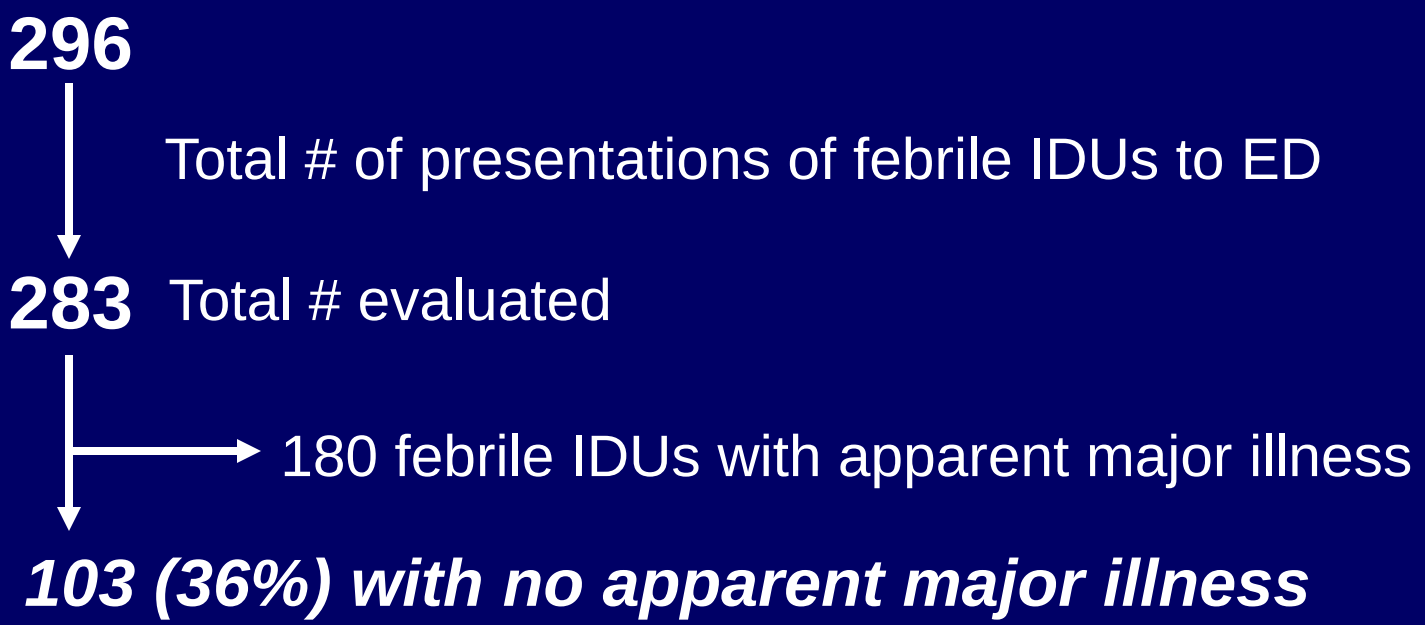

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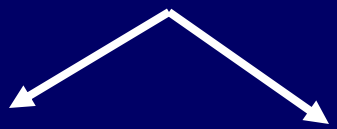
Febrile IDUs-Presentation to Boston City Hospital ED 1/88-1/89

103 (36%) with no apparent major illness



11 (11%)
major illness

92 (89%)
minor illness

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

Diagnosis of Patients with Occult Major Illness

Patient	Diagnosis	Bacteremia
1	Infective Endocarditis	Group G β-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

- 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

28 year-old Latino man presents to ED with chest pain

- Crushing substernal chest pain lasting two hours resolved with O2 alone in ambulance
- 6 year history of regular (2-3x/wk) crack or intranasal cocaine use
- 10 year history of smoking (2 packs/day)
- Negative HTN, DM, history of coronary artery disease
- Family history of MI (father, 48 years)

EKG normal

Cocaine-Related Myocardial Infarction (MI)

- One of every four MIs in people aged 18 to 45 years linked to cocaine use*
- Most are young, male cigarette smokers without other risk factors for MI†
- Approximately half of patients with cocaine-related MI have no evidence of atherosclerotic coronary artery disease on subsequent angiography†
- Cocaine use is a strong predictor of coronary artery aneurysm‡

* Qureshi AI, Suri MF, Guterman LR, et al. *Circulation.* 2001:103;502–506.
† Satran A, Bart BA, Henry CR, et al. *Circulation.* 2005;111;2424-2429.
‡ Lange RA. *Adv Stud Med*. 2003:3(8);448-454.

Cocaine-Related Myocardial Infarction (MI)

True or False:

Occurrence of MI with cocaine is unrelated to amount ingested, route of administration, or frequency of use

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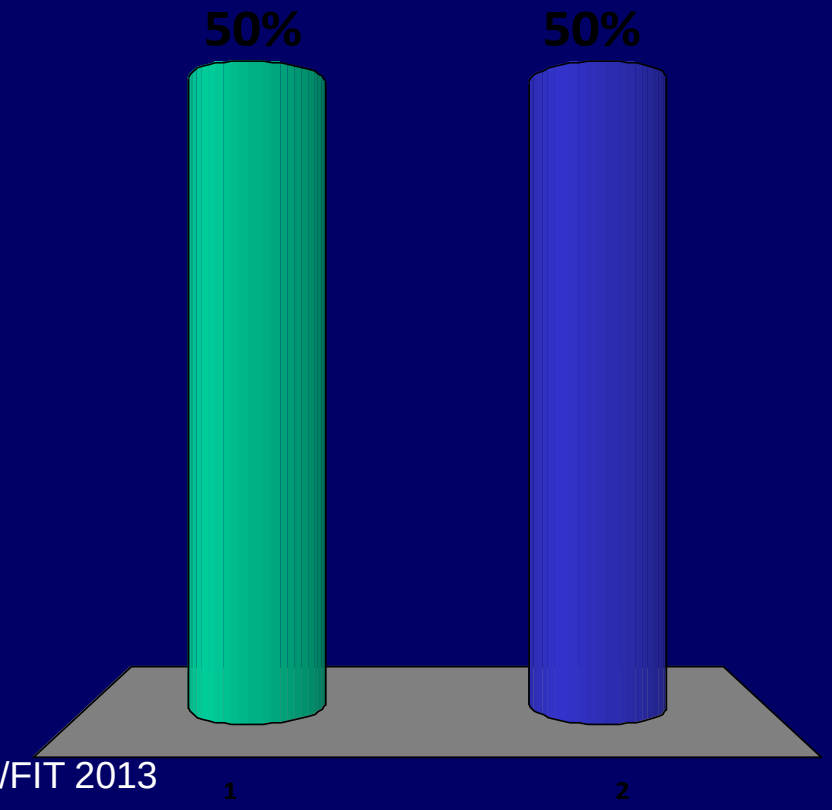
1. True
2. False



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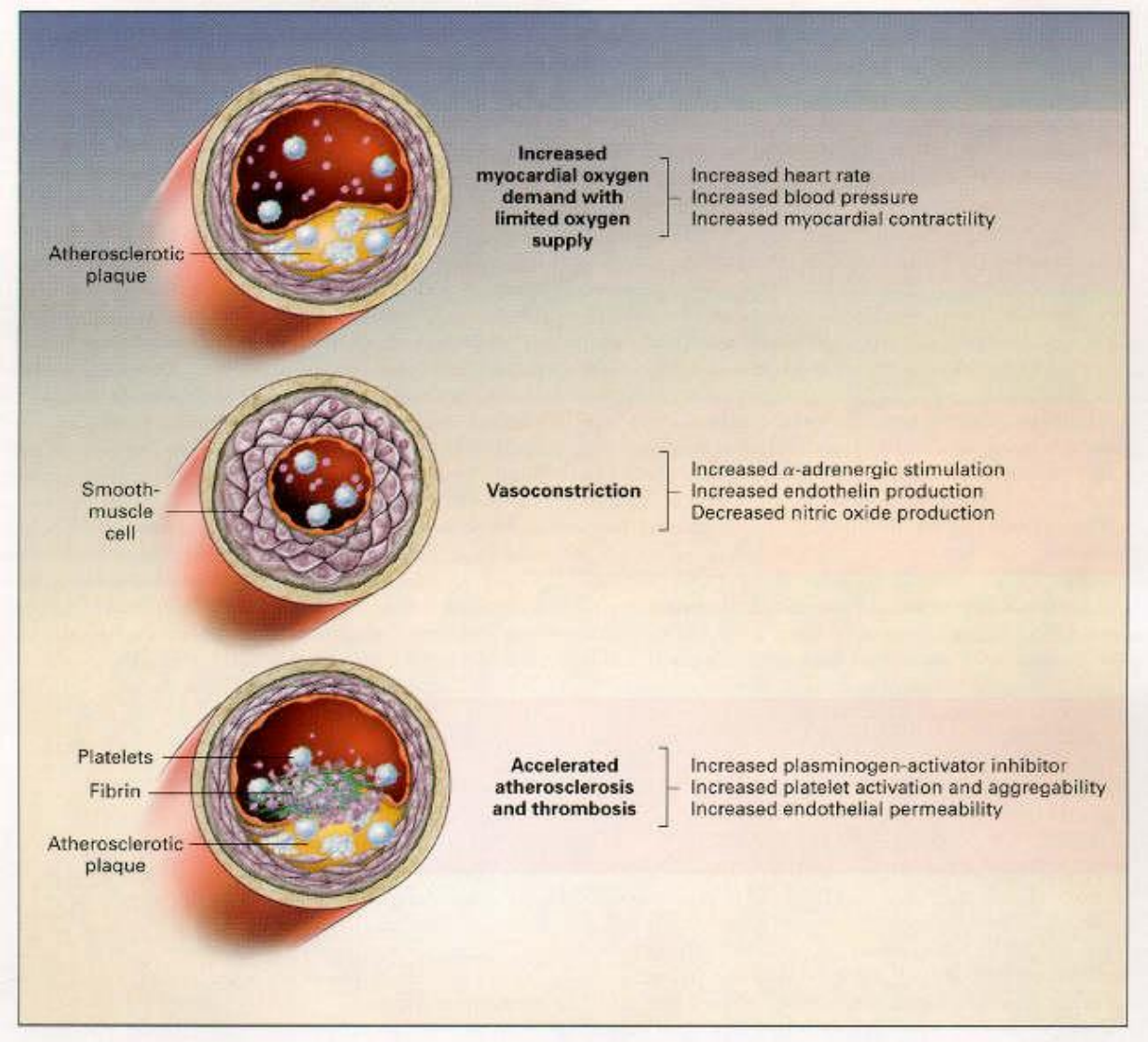
TRUE

Lange RA. *Adv Stud Med*. 2003:3(8),448-454.

How Cocaine May Induce MI



Lange RA, Hillis LD. *N Engl J Med*. 2001;345:351-357.
Egred M, Davis GK. *Postgrad Med J*. 2005;81:568-571.

Beta-Blockers, Cocaine, & Chest Pain

Controversy

Observation Period

- Prospective evaluation patients w/ cocaine-associated chest pain (n=302) at low risk for CV events*
- At follow-up among 85% (256/302), 1.6% of patients (4/256) had nonfatal MI (95% CI: 0.1 to 3.1)
- All patients with MI continued cocaine use during the 30-day follow-up period
- Low risk of death or MI during 30 days post discharge

*Normal troponin levels, no acute EKG changes, no dysrhythmias or recurrent symptoms

Weber JE, et al. *New Eng J Med*. 2003;348:510-517

Case Presentation 2 Outcome

- Observation in ED - chest pain - rule out MI
- No further symptoms
- Discharge after 12 hours with discussion of health consequences of cocaine & tobacco use

Case Presentation 3

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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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.

Merrill JO, Rhodes LA, Deyo RA, et al. *J Gen Intern Med*. 2002;17:327-333.

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.

<u>Patient/Resident Dialog</u>

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-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.