To the Editor. Recently we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well-documented addiction in patients who had no history or addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients, Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

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Boston University Medical Center  
Waltham, MA 02154
Opioid Prescription Rates by County—TN, 2007

Prescription Rate per 100 Population
- <105
- 105 - 121
- 122 - 140
- 141 -
- => 141
Opioid Prescription Rates by County—TN, 2008

Prescription Rate per 100 Population
- <105
- 105 - 121
- 122 - 140
- => 141
Opioid Prescription Rates by County—
TN, 2009
Opioid Prescription Rates by County—TN, 2010
Opioid Prescription Rates by County—TN, 2011

Prescription Rate per 100 Population
- <105
- 105 - 121
- 122 - 140
- => 141
Case

- 9/06- 26 year old female presents to a Family Medicine Clinic

- Previously seen in another city, where she lives, for a diagnosis of *chronic pyelonephritis*

- Chief Complaint: “My back hurts”

- PE: RLQ, LLQ and suprapubic pain

- No urine drug screen was ordered
• Past Medical History: acute pyelonephritis

• Social History: married with multiple marital problems
  – Husband beat her
  – Now separated, single mom with 2 children, 6 & 8
  – Husband skipping child support

• Employment History: CNA, pharmacy tech

• Previous Imaging: U/S kidneys- normal

• Current meds: oxycontin 40mg TID, Percocet 10 mg QID, Roxicet 30 mg QID
Clinical Course

• Multiple requests for increases in pain meds

• Requested meds by name- oxycontin/percocet

• April- she reports increasing anxiety

• Neck pain- 10/10, no imaging ordered
  – 1 month later- neck pain worse??

• July- crying daily, “life is in complete disarray”
Diversion????

- Same July- UDS was negative for hydromorphone (Dilaudid)
- She was prescribed dilaudid 8 mg, #370 per month, 12 pills per day
- Detection time for lab- 2-4 days for hydromorphone
- She had to have skipped 24-48 pills
- Her prescriptions continued monthly without investigation for possible diversion
Prescription at the Time—Monthly!!

- Ambien 10 mg #30
- SOMA 350mg #60
- Oxycontin 80 mg #300
- Roxicodone 30mg #400
- Dilaudid 8mg #370
- Xanax 2mg #120
- Mepergan fortis (Demerol) #60 (with a note that says: “try not to use”)
  - 1340 pills/month, 44 pills/day
Street Value

- Oxycontin 80 mg #300  $24,000.00
- Roxicodone 30 mg #400  $12,000.00
- Dilaudid 8 mg #370  $37,000.00
- Demerol 25 mg #60  $1,500.00
- Xanax 2 mg #120  $240.00

Assuming $1.00/mg- conservative street value= $74,740.00/month
Case Continued

• May and June 1 year later- pill counts came up short

• July- office could not reach patient for a pill count and when they did reach her, she was on her way to Florida and couldn’t come in. (all of these were in violation of the informed consent that she had signed)
June, 1 year later- Office Note: “Her appearance was very strange today. Wearing blonde wig with her natural hair sticking out everywhere. Wearing dark sunglasses. Wearing a long men’s shirt with tears in it and doesn’t appear to have on anything under it.” “Her pill count came up short today.”

Really?!?!?!?!! Shocker!!!

How does the doctor’s office respond?
Hard to Fathom

- Oxycontin 80 mg #360
- Roxicodone 30 mg #450
- Xanax 2 mg #120
- Demerol 100 mg #40
- 970 pills of high potency narcotics

- No UDS
Red Flags

- Prescribed controlled substances in quantities and frequency inappropriate for her complaint or illness
- Hard to determine what her source of pain was
- She had obvious behavioral problems
- She was being abused
- She had a dramatic and compelling but vague complaint (10/10 pain)
Red Flags

- Pressured her doctor for increases in her medication
- She had a crescendo pattern of drug use with progression to multiple drugs
- She asked for drugs by name
- She worked in healthcare (CNA, pharm tech)
- UDS’s were inconsistent
- Pill counts were short- either selling them or taking more than prescribed
Conclusion

• The controlled substances prescribed in this case were outside the scope of accepted medical practice and were not for a legitimate medical purpose.
Six Key Indicators

1. Mandatory Prescriber Education
2. Opioid Prescribing Guidelines
3. Eliminating Pill Mills
4. Prescription Drug Monitoring Programs (PDMPs)
5. Increased Access to Naloxone
6. Availability of Opioid Use Disorder (OUD) Treatment
Tennessee Morphine Equivalents

Morphine Milligram Equivalents dispensed in Tennessee - 2012-2015

The state monitors the morphine milligram equivalent, or MME, a unit that compares the strength of opioids into the potency of morphine.

Source: Tennessee Department of Health

Total Number = 191

Legend
Pain Management Clinics Per County
- 0 - 1
- 2 - 4
- 5 - 8
- 9 - 13
- 14 - 23
Tennessee Leading the Way

A ROADMAP FOR STRENGTHENING LAWS & REGULATIONS

- 47 States NEED TO IMPROVE!
- 28 States are "FAILING"
- 4 States are "MAKING PROGRESS"
<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
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<tbody>
<tr>
<td>2016</td>
<td>1631 deaths</td>
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<tr>
<td>2015</td>
<td>1451 deaths</td>
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<tr>
<td>2012</td>
<td>1094 deaths</td>
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<tr>
<td>2011</td>
<td>1062 deaths</td>
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</table>
Drivers of Heroin Use

75-85% have used prescription drugs

Black Tar Heroin
Prescription Drug Incidents

Tennessee Drug Trends - Prescription Drugs

2011 - 9,500 Prescription Drug Incidents
2012 - 10,478 Prescription Drug Incidents
2013 - 10,148 Prescription Drug Incidents
2014 - 9,926 Prescription Drug Incidents
2015 - 9,410 Prescription Drug Incidents

Data Source - Tennessee Incident Based Reporting System (TIBRS)
Dangerous Drugs Task Force

Tennessee Drug Trends - Heroin

2011 - 207 Heroin Incidents

2012 - 415 Heroin Incidents

2013 - 569 Heroin Incidents

2014 - 822 Heroin Incidents

2015 - 1,244 Heroin Incidents

Data Source - Tennessee Incident Based Reporting System (TIBRS)
Heroin Overdose Deaths and Poisoning

Prescription opioid poisonings decreased since 2012 while overdose deaths increased since 2009.

**Figure 3.** Prescription opioid poisonings and overdose deaths:

- Tennessee 2009-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Poisonings</th>
<th>Overdose Deaths</th>
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<tbody>
<tr>
<td>2009</td>
<td>5,784</td>
<td>450</td>
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<tr>
<td>2010</td>
<td>5,983</td>
<td>560</td>
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<td>2011</td>
<td>6,421</td>
<td>538</td>
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<td>2012</td>
<td>6,378</td>
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<td>2013</td>
<td>6,072</td>
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<td>2014</td>
<td>6,106</td>
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Heroin overdose deaths and poisoning increased dramatically since 2009.

**Figure 4.** Heroin poisonings and overdose deaths:

- Tennessee 2009-2014

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<tr>
<th>Year</th>
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<td>2010</td>
<td>92</td>
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<td>2011</td>
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<td>375</td>
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<td>2014</td>
<td>489</td>
<td>147</td>
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Sources: Tennessee Department of Health, Division of Policy, Planning and Assessment, Nashville, TN; (1) Death Statistical System, 2014; (2) Hospital
Drug Deaths by County

16 Years of Prescription Drug Deaths, By County

Prescription Drug Deaths per 100,000 County Residents

- 32.1–54.6
- 16.1–32
- 12.1–16
- 8.1–12
- 6.1–8
- 2.1–6
- 0–2
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<td>Clinton County, KY</td>
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The Plague is Coming

Heroin is the leading opioid in drug overdose deaths in the US...

Age-adjusted death rates for every 100,000 people

...but fentanyl death rates doubled in one year

Source: National Center for Health Statistics

Vox
Percocet (or Fentanyl??)
Xanax (or fentanyl??)
Can You Tell the Difference?
Mobile Pharmaceutical Plant
Love One Another

- **New Testament**- Jesus Christ, “love your neighbor.”

- **Quran**- Prophet Mohammed, “you will not enter paradise until you have faith; and you will not complete your faith till you love one another.”

- **Udanavarga** (Buddhism)- “hurt not others that which pains yourself.”

- **Old Testament** (Judaism)- “thou shalt love thy neighbor as yourself.”

- **Hitopadesa** (Hinduism)- “one should always treat others as they themselves wish to be treated.”
Contact Information

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