“Rockin’ the Stockin’
OK(lahoma) Ways of Tracking Drug Utilization”

(No, it’s not a scary narcotic diversion story!)

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1,100 square miles
Population
- 1.6 million day
- 1.25 million night
175,864 calls (2010)
132,224 transports (2010)
75% transports
A budget gift from Eagles 2011...

$250,000 Yearly
The $$$$$ Question

Do we stock what we stock

OR

do we stock what we use and need?
Whoa, Doc!!!

- You’re getting operational on us....

- How does this have anything to do with the clinical practice of EMS Medicine?
How could you advance if $$$ wasn’t blocking the way?

- Monitor/defibrillators
- ITD devices
- Active compression/decompression devices**
  - **when available in the US
- CPAP, BiPAP, Mechanical Ventilation
- Stretcher upgrades
- Education
- CQI
- Medical oversight budget
The Gift of “Scarcity” in 2010
“We’re Gonna Be Out of D50!”

• Who are our power users?
• What is our usage pattern?
• What do we stock on apparatus today?
• What do we have in supply today?
• What ordering options do we have?
Reality Check – Part One

• “We’re seeing some diabetics every week!”
  – Single “power user” 7 amps in 6 months
• “I wonder how many get more than 1 amp?”
  – Zero in 6 months
• “We stock what we need!”
  – 10+ amps per ambulance
  – 3 amps per paramedic engine/squad
Reality Check – Part Two

- Supply room inventory
  - Less than 1 week supply at EMSA
  - Not much more at Fire Depts
  - Willing to share prn
- Ordering options....
  - No D50 (We got beat to the phones!)
  - D25 ?? (Not sure we can get that)
  - “Hey, we went ahead and ordered D10!”
Decision Time

• 60% percent reduction on ambulances
  – Hundreds of amps suddenly appeared!!
• Kept engine/squad supply same
• Placed D50 order for shipping “some day”
• Medical Director orders 6 weeks of all drugs to be kept in supply
• Vowed to find a better way...
<table>
<thead>
<tr>
<th>Product</th>
<th>Cost 1</th>
<th>Cost 2</th>
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</thead>
<tbody>
<tr>
<td>Summary</td>
<td>$6.08K</td>
<td>$6.08K</td>
</tr>
<tr>
<td>Activated Charcoal</td>
<td>$200</td>
<td>$344</td>
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<tr>
<td>Adenosine</td>
<td>$825</td>
<td>$589</td>
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<td>Albuterol</td>
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<td>Amiodarone</td>
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<td>Aspirin</td>
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<td>Atropine</td>
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<td>$356</td>
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<tr>
<td>Atrovent</td>
<td>($22.8)</td>
<td>($24.7)</td>
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<tr>
<td>Benadryl</td>
<td>$146</td>
<td>$114</td>
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<tr>
<td>Calcium Chloride</td>
<td>$0.00</td>
<td>($26.8)</td>
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<tr>
<td>Dextrose 25%</td>
<td>$0.00</td>
<td>$496</td>
</tr>
<tr>
<td>Dextrose 50%</td>
<td>$273</td>
<td>($367)</td>
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<tr>
<td>Medication</td>
<td>Cost 1</td>
<td>Cost 2</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------</td>
<td>--------</td>
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<tr>
<td>Dextrose 50 %</td>
<td>$273</td>
<td>$(367)</td>
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<tr>
<td>Dopamine</td>
<td>($2.31)</td>
<td>$3.85</td>
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<td>Epinephrine 1:1000</td>
<td>$24.1</td>
<td>$1.58K</td>
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<tr>
<td>Epinephrine 1:10000</td>
<td>$313</td>
<td>$87.3</td>
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<tr>
<td>Glucagon</td>
<td>$1.46K</td>
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<tr>
<td>Lidocaine</td>
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<tr>
<td>Magnesium Sulfate</td>
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<td>$44.0</td>
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<tr>
<td>Narcan</td>
<td>$674</td>
<td>$658</td>
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<tr>
<td>Neo-Synephrine</td>
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<td>$0.00</td>
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<tr>
<td>Nitroglycerin</td>
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<td>$2.20K</td>
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<tr>
<td>Sodium Bicarbonate</td>
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<td>$(64.7)</td>
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<tr>
<td>Solu-Medrol</td>
<td>$(61.5)</td>
<td>$270</td>
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</table>
Medication Consumption Aug 09-Jul 10: Eastern

**Benadryl**

**Monthly Medication Consumption**

<table>
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<tr>
<th>Jun</th>
<th>40</th>
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</table>

**Monthly Medication Orders**

<table>
<thead>
<tr>
<th>Jun</th>
<th>225</th>
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</table>
Does One Size Fit All?

Engine A – Ambulance 90% fractile lag time
= 2 mins
Engine B – Ambulance 90% fractile lag time
= 8 mins
Should the drug box on Eng A = Eng B?
So what does this all really mean?

What do I take home?

Where is my suitcase of money?
Smart Pharmaceutical Stocking
2011 Eagles Summary

• Measure what you actually use (into pts)
• Factor what you need
  – On the streets & on what apparatus?
  – On the shelf?
• Order what you will use
• Stock what you need
• Measure costs of use and need (and savings!)
OKLAHOMA

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