CMS Black Box Warnings-What is the Expectation for Hospitals?

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Black Box Warning

- FDA requires FPI (Full Prescribing Information)
- Boxed Warnings are:
  - Certain contraindications or serious warnings, particularly those that may lead to death or serious injury
  - Ordinarily must be based on clinical data, but serious animal toxicity may also be the basis of a boxed warning in the absence of clinical data
Black Box Warnings

● 397 Drugs or Drug Classes with Warnings (http://www.formularyproductions.com/blackbox/)

● Typically, 230 of them can be found on a hospital’s formulary

● Black Box Warnings can be specific prescribing cautions or advisory of possible future complications
Black Box Warnings Information for Prescribers:

1. An adverse reaction is so serious (a fatal, life-threatening or permanently disabling), the risks and benefits of using a drug must be considered.

2. A serious adverse reaction can be prevented or reduced in frequency or severity by appropriate use of the drug (patient selection, careful monitoring, avoiding certain concomitant therapy, addition of another drug or managing patients in a specific manner, avoiding use in a specific clinical situation).
Black Box Warnings Information for Prescribers: (Cont.)

3. The FDA approved the drug with restrictions to assure safe use because FDA concluded that the drug can be safely used only if distribution or use is restricted.
California Department of Public Health - All Facilities Notice

- Title 22: Pharmaceutical Service General Requirements
- CMS Conditions of Participation Pharmaceutical Services
- Recommendation for the Use of Medications with Boxed Warnings
  - Use of medication be a deliberative, evidence-based process
  - With current policies and procedures, including pre-printed orders
# Cost of Adverse Drug Reactions


<table>
<thead>
<tr>
<th>ADR</th>
<th>Pts (#)</th>
<th>Attributable Cost/Event</th>
<th>Attributable LOS/Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrhythmia</td>
<td>561</td>
<td>$4,410</td>
<td>3.93</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>182</td>
<td>$4631</td>
<td>4.40</td>
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<tr>
<td>Fever</td>
<td>26</td>
<td>$9,022</td>
<td>5.49</td>
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<tr>
<td>Nausea/vomiting</td>
<td>526</td>
<td>$712</td>
<td>1.37</td>
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<tr>
<td>Renal failure</td>
<td>324</td>
<td>1,371</td>
<td>4.54</td>
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<tr>
<td>Confusion</td>
<td>98</td>
<td>$2,232</td>
<td>2.50</td>
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<tr>
<td>Rash</td>
<td>108</td>
<td>$1,868</td>
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<tr>
<td>Hypotension</td>
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<td>$3,563</td>
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<tr>
<td>Bleeding</td>
<td>26</td>
<td>$6,702</td>
<td>4.89</td>
</tr>
</tbody>
</table>
Insulin, Morphine and Heparin

- Insulin, morphine and heparin are frequently involved in medication errors and adverse drug reactions but do not have black box warnings.
- Example of frequently used high risk medications which require equal amount of scrutiny.
Droperidol (Inapsine) Boxed Warning

- All patients undergo a 12-lead ECG prior to administration
- ECG monitoring should be performed prior to treatment and continued for 2-3 hours after completing treatment
- Cases of QT prolongation and/or torsade de pointes with no risk factors and some cases have been fatal
Droperidol Continued

- Used with extreme caution to patients who may be at risk for development of prolonged QT syndrome (e.g., CHF, bradycardia, use of a diuretic, cardiac hypertrophy, hypokalemia, hypomagnesemia, or administration with other drugs known to increase the QT interval)
Droperidol Other Risk Factors

- Age over 65 years
- Alcohol abuse
- Use of agents such as benzodiazepine, volatile anesthetics, and IV opiates
- Initiate at a low dose and adjusted upward, with caution, as needed to achieve the desired effect
Fentanyl Patch Black Box Warning

Contraindicated in following patients:

1. non opioid-tolerant
2. acute pain for a short period
3. post-operative pain including OP surgeries
4. management of mild pain
5. management of intermittent pain
Fentanyl Patch Cautions

- Concomitant use with potent cytochrome P 450 3A4 inhibitors should be monitored for extended period of time.
- Should be used in patients older than 2 years and are opioid-tolerant.
- Use in patients in doses of comparable potency when converting to fentanyl, will require monitoring for 24 hours.
Fluoxetine (Prozac) Black Box Warning

- Increase risk of suicidal thinking and behavior in children, adolescents, and young adults
- Close observation for suicidal thinking or unusual changes in behavior
- Not a drug that has high risk for acute care hospitals
Chemo Black Box Warnings

- As a group, they generally have boxed warnings
- Most acute care hospitals have policy and procedures for the prescribing, preparation, administration, and monitoring of these agents
What Should Hospitals Do?

At The Hospital Level

- Create a Safe Environment of Care
  - Start at the top (CEO & BOD)
  - Non-punitive
  - Plan on additional resources
  - Multidisciplinary focus
  - Open communication
  - Standardize and simplify
What Should Hospitals Do?

- Evaluate how your information system can make this information readily available
- Develop a list of Black Box Warning drugs used in your hospital
- Look for high use and high risk drugs or drugs associated with severe adverse reactions
- Incorporate a review process at P&T Committee for use guidelines and order sets
What Should Hospitals Do?

Hospital and the Pharmacy Department

- Make it difficult to commit an error
- Catch them before they get to the patient
- Analyze and challenge workplace norms
- Simplify the process
What Should Hospitals Do?

- Develop collaborative practice policy and procedures for clinical pharmacists to guide their interventions upon order review
- Develop order sets if needed
What Should Hospitals Do?

Collaborate With the Healthcare Community

- Share information on medication safety strategies
- The California Society of Health-System Pharmacists (www.cshp.org) is posting information and tools shared by members (i.e. policy and procedure on fentanyl patch and order form)
- Dialog with the California Department of Public Health so that medication safety strategies can be jointly developed