AORN Survey Results

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www.healthpack.net
Agenda

• Purpose
• Modifications from Last Year
• Demographics
• Survey Questions and Results
• Future Improvements
• Acknowledgements
• Contacts
• Questions
Purpose

• Understand Customers
• Packaging Improvements
• Trend Concerns
• Changing Role of Sustainability
Survey Modifications

Clemson Involvement
• Worked together with IoPP representatives and industry volunteers
• Student exposure to medical device packaging industry

Incorporation of Photos
• Packaging photos were used to clarify packaging terminology
  • Chevron Pouch
  • Header Bag
  • Etc.

Question Modifications
• Use of 5-point scales
• Clarified question phrasing
• Introduced sustainability questions

Survey Distribution
• Distribution through regional representatives
• Use of online networking resources
• Survey Monkey
Questions and Results
Demographics

Age
- 20-30: 1.8%
- 31-40: 9%
- 41-50: 18%
- 51-60: 57.7%
- 61+: 12.6%

Gender
- Male: 8.2%
- Female: 90.9%
- No Answer: 0.9%
Demographics

Medical Experience
- 1-5 yr(s): 2.7%
- 6-10 yrs: 3.6%
- 11-20 yrs: 11.7%
- 21-30 yrs: 28.8%
- 31+ yrs: 53.2%

Level of Education
- Some College: 5.9%
- Tech College (2 yr): 14.9%
- Graduate School: 26.7%
- College (4 yr): 50.5%
- No Answer: 2%
- Some College: 5.9%
Demographics

Facility Type

- Hospital: 91%
- Out Patient Center: 9%

Geographic Location

- Southeast: 60%
- Southwest: 16%
- Northeast: 9%
- Pacific US: 1%
- Midwest: 7%
- Northwest: 7%
For medical device products where size/style/model number is selection criteria during a surgical procedure, which type of packaging is preferred?

*Question #1*

![Graph showing response count for different types of packaging: Single Entry, Double Entry, Neither, No Preference. The Double Entry option has the highest response count.]
Overall, which type of package do you prefer for sterile non-implantable medical devices?

(rank each package type individually)

Question #2
Overall, which type of package do you prefer for long-term implantable devices?

*Question #3*
Do you believe a double entry packaging provides a more sterile device?

Question #4

Yes 82%

No 18%
Do you prefer a product with a double entry?

*Question #5*

- **Yes**: 95.9%
- **No**: 4.1%
If you prefer a device with double entry, which attributes are important?

*Question #6*

- Easier for dumping/flipping
- Room for error in preparing for surgery (dropping)
- Provides a more sterile device
- Ease of presentation
Which packaging characteristics have caused recurrent and/or significant issues for you in the past?

*Question #7*

- Labels or labeling
- Device Removal
- Snapfit trays/clamshells
- Tyvek® separating or shredding upon opening
- Paper separating or shredding upon opening
- Packaging material tearing
- Header Bag opening fixture
- Corner peel opening of peel pouch
- Chevron opening of peel pouch
- Opening mechanism for rigid or flexible trays

*Response Score Average*
Did you ever use a device where sterility was questionable?

*Question #8*

- **Yes**: 12.5%
- **No**: 84.7%
- **No Answer**: 2.8%
What happens when the circulating nurse drops the sterile package before presenting it to the sterile nurse?

*Question #9*
With respect to medical device packaging, please rank the following in order of most important (1) to least important (4).

**Question #10**

1. Speed of opening package
2. Least amount of packaging waste
3. Smallest possible package
4. Consistent packaging sizes from manufacturers
With respect to labeling of medical device packaging, please rank the following in order of most important (1) to least important (5)

Question #11

Most Important

1. Identification of manufacturer, model number and use before date

2. Easily read text/font labeling

3. Color coded labeling

4. Manufacturer’s instructions for use in every package

5. Manufacturer’s instruction for use provided via the web or CD

Least Important
Overall, which type of package do you prefer for presentation into the sterile field?

*Question #12*

<table>
<thead>
<tr>
<th>Package Type</th>
<th>Strongly Dislike</th>
<th>Dislike</th>
<th>Indifferent</th>
<th>Like</th>
<th>Strongly Prefer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Entry Trays</td>
<td>0.0</td>
<td>4.2</td>
<td>1.4</td>
<td>38.9</td>
<td>55.6</td>
</tr>
<tr>
<td>Double Entry Pouch</td>
<td>2.8</td>
<td>13.9</td>
<td>5.6</td>
<td>54.2</td>
<td>22.2</td>
</tr>
<tr>
<td>Double Entry Tray inside Pouch</td>
<td>1.4</td>
<td>15.3</td>
<td>18.1</td>
<td>45.8</td>
<td>13.9</td>
</tr>
<tr>
<td>Single Entry Tray</td>
<td>12.5</td>
<td>41.7</td>
<td>18.1</td>
<td>20.8</td>
<td>5.6</td>
</tr>
<tr>
<td>Single Entry Pouch</td>
<td>20.8</td>
<td>40.3</td>
<td>19.4</td>
<td>12.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Header Bag</td>
<td>25.0</td>
<td>33.3</td>
<td>26.4</td>
<td>5.6</td>
<td>0.0</td>
</tr>
<tr>
<td>CSR Wrap</td>
<td>6.9</td>
<td>20.8</td>
<td>38.9</td>
<td>23.6</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Do you read the "Use Before Date" on the package or in the labeling?

*Question #13*

- Yes: 98.6%
- No: 1.4%
Do you inspect the sterile package for damage/defects prior to opening the package?

Question #14

Yes

100%
Once a sterile package is opened, do you examine the seal for a "clean peel" or defects?

Question #15

- Yes: 90.3%
- No: 9.7%
What layers of the sterile package get inspected for integrity?

Question #16

- Both: 79%
- Outer layer: 21%
- Inner layer: 0%
- Neither: 0%
Which of the following packaging defects would lead you to question the sterility of the contents?

*Question #17*

- Dirt/hair/foreign materials outside the package: 76.40%
- Dirt/hair/foreign materials inside the package: 98.60%
- Holes/Tears: 98.60%
- Folds/crease marks: 80.60%
- Dents: 84.70%
- Scuffs or scrape marks: 81.90%
How often do the following defects occur to pouches?

**Question #18**

<table>
<thead>
<tr>
<th>Defect</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scuffs or scrape marks</td>
<td>5.6</td>
<td>38.9</td>
<td>45.8</td>
<td>6.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Dents</td>
<td>9.7</td>
<td>43.1</td>
<td>36.1</td>
<td>8.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Folds/crease marks</td>
<td>1.4</td>
<td>27.8</td>
<td>47.2</td>
<td>22.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Holes/Tears</td>
<td>0.0</td>
<td>31.9</td>
<td>47.2</td>
<td>19.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Dirt/hair/foreign materials</td>
<td>18.1</td>
<td>61.1</td>
<td>16.7</td>
<td>2.8</td>
<td>0.0</td>
</tr>
</tbody>
</table>
How often do the following defects occur to trays?

*Question #19*

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scuffs or scrape marks</td>
<td>5.6</td>
<td>55.6</td>
<td>33.3</td>
<td>4.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Dents</td>
<td>2.8</td>
<td>45.8</td>
<td>47.2</td>
<td>2.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Folds/crease marks</td>
<td>20.8</td>
<td>55.6</td>
<td>18.1</td>
<td>4.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Holes/Tears</td>
<td>12.5</td>
<td>56.9</td>
<td>27.8</td>
<td>1.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Dirt/hair/foreign materials</td>
<td>19.4</td>
<td>66.7</td>
<td>9.7</td>
<td>1.4</td>
<td>0.0</td>
</tr>
</tbody>
</table>
How often do you flip or dump a device rather than present it for picking?

*Question #20*

- **Never**: 5.6%
- **Rarely**: 19.4%
- **Sometimes**: 43.1%
- **Frequently**: 31.9%
- **Always**: 0%
How do you achieve aseptic presentation of devices that have multiple loose items contained within the same sterile package?

*Question #21*

- **Never Use**: 6.9%
- **Dumping**: 16.7%
- **Flipping**: 13.9%
- **Picking**: 88.9%
From your experience, please rate the frequency of rejecting a device for the following reasons:

**Question #22**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package undamaged, but the shelf carton or shipping box is damaged</td>
<td>25.0</td>
<td>40.3</td>
<td>15.3</td>
<td>0.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Package material tore and/or shed fiber during opening</td>
<td>8.3</td>
<td>25.0</td>
<td>23.6</td>
<td>6.9</td>
<td>20.8</td>
</tr>
<tr>
<td>Labeling issues</td>
<td>12.5</td>
<td>34.7</td>
<td>18.1</td>
<td>2.8</td>
<td>15.3</td>
</tr>
<tr>
<td>Package damaged, but the shelf carton or shipping box is undamaged</td>
<td>9.7</td>
<td>20.8</td>
<td>18.1</td>
<td>1.4</td>
<td>31.9</td>
</tr>
<tr>
<td>Dirt/hair/foreign materials</td>
<td>9.7</td>
<td>27.8</td>
<td>6.9</td>
<td>0.0</td>
<td>41.7</td>
</tr>
</tbody>
</table>
Please indicate below which parts of the labels or labeling are most useful in the selection/use of medical products/devices

**Question #23**

<table>
<thead>
<tr>
<th>Labeling Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method of sterilization</td>
<td>36.10%</td>
</tr>
<tr>
<td>Bar code for inventory control</td>
<td>29.20%</td>
</tr>
<tr>
<td>Sterilization process indicator tape or label</td>
<td>79.20%</td>
</tr>
<tr>
<td>Expiration (use before) date</td>
<td>97.20%</td>
</tr>
<tr>
<td>Font size</td>
<td>70.80%</td>
</tr>
<tr>
<td>Color coding</td>
<td>31.90%</td>
</tr>
<tr>
<td>Model number</td>
<td>87.50%</td>
</tr>
<tr>
<td>Graphics</td>
<td>27.80%</td>
</tr>
</tbody>
</table>
How often do you place an unopened inner sterile package (after removing the outer barrier) back onto the shelf because it was not needed for that procedure?

Question #24

- Never: 48.6%
- Rarely: 31.9%
- Sometimes: 16.7%
- Frequently: 1.4%
- No Answer: 1.4%
Sustainability Questions

• How are trays and pouches disposed of in your facility?
  90%: Trash

• Does your facility recycle sterile packaging?
  87.0%: No

• How easy is it to recycle sterile packaging at your facility?
  65.2%: Impossible, no place to recycle
Future Improvements

Distribution of Survey
- Mailers through AORN
- Incorporate with AORN Congress
- Nursing magazines
- Earlier distribution (August or September)

Photos
- More photos to define terms (ie. Chevron, Header Bags)
- Obtain unmarked samples
- Create sketches to show features that are difficult to photograph

Increase Industry Involvement
Acknowledgements

IoPP Representatives
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