



How Safe Are Our Labels?

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KU School of Pharmacy

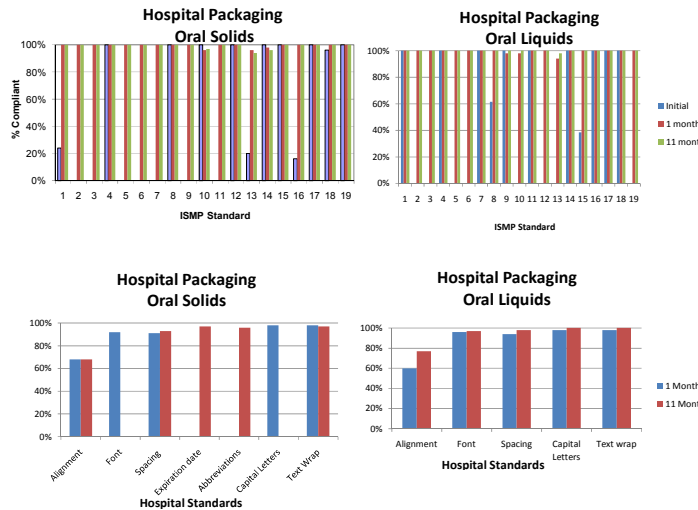
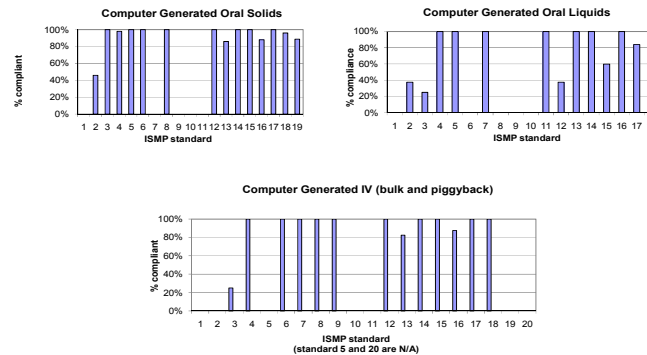
Methodology

We collected samples from the hospital packaging log and computer-generated order labels for each category of labels in the ISMP guidelines. Each label was compared with each ISMP standard in its category, and the results were summarized. The packaging labels were additionally compared with the hospital's existing labeling standards. After updating the hospital's standards to the new ISMP guidelines, we posted the new standards and trained staff to implement these changes. After four weeks, packaging samples were again collected and analyzed as above. Then 11 months later the packaging samples were again collected and analyzed to determine if the changes were still intact.

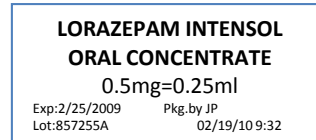
ISMP Standards

- 1: Bold pt name, generic drug name, and patient specific dosage.
- 2: List product by generic name using appropriate nomenclature.
- 3: Use "tall-man" lettering to minimize risk of selecting wrong drug.
- 4: Do not include salt form of chemical, unless multiple salts are available.
- 5: Express suffixes that are a part of the brand name.
- 6: Use "used for" if brand not specifically dispensed but known as and state law prohibits printing brand name.
- 7: Specify frequency of order.
- 8: Use Arial, Verdana or equivalent text.
- 9: Minimum font size 12.
- 10: Appropriate text wrapping to accommodate a large number of characters.
- 11: Minimum of 250 characters found within the comments section of label.
- 12: Background color of white to allow for the best possible visualization of text.
- 13: Allow for spacing between name, strength, dosage form and dosage units.
- 14: Provide adequate space in data fields to communicate all information appropriately.
- 15: Ensure printer supports all font and sizes being used.
- 16: Avoid all potentially dangerous abbreviations.
- 17: Give special consideration to all possible symbols used on labels.
- 18: Do not abbreviate drug names.
- 19: Combination products should include brand name on the label.
- 20: List drug name, patient dose, dosage form, and dosage unit all together.

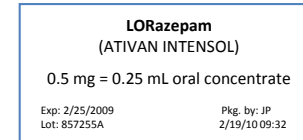
Data



Packaging Labels Prior to Changes



Packaging Labels AFTER Changes



Conclusion:

- Initially labels were compliant 61% of the time.
- Midway evaluations were compliant to ISMP guidelines 91% of the time and Hospital guidelines 53% of the time.
- Eleven month evaluations were compliant to ISMP guidelines 92% of the time and Hospital guidelines 76% of the time.
- Computer generated labels were initially compliant 60% of the time and were not changed.
- Our interventions were successful.

Limitations & References

- Limitations:
 - Data collection was performed by three different individuals. Although there are guidelines this may have caused some individual interpretation.
 - The computer generated labels were not updated to the new standards.
- References:
 - ISMP standards, <http://www.ismp.org/>

Hospital Packaging Standards (Solid & Liquid)

generic
lower case, bold, 12 font
(BRAND)
ALL CAPS, non-bold, 10 font

strength and dosage form:
all lower case, 12 font,
spaces between strength, dose units, dosage form (spelled out)

Exp, Lot, Pkg. by, day prepared:
All 8 font, first letter cap
Aligned in two columns

*All of these should be in different text boxes
*Do NOT abbreviate drug names (ex: HCTZ)
*Include brand name on ALL combination products
*Do not include salt form unless there are multiple salts

Conflict of Interest Statement
Jenna Prescott: I have no actual or potential conflict of interest in relation to this study.
Lisa Campbell: I have no actual or potential conflict of interest in relation to this study.
Krista Morrison: I have no actual or potential conflict of interest in relation to this study.
Patrick Parker: I have no actual or potential conflict of interest in relation to this study.
Gregory Burger: I have no actual or potential conflict of interest in relation to this study.