

Tall Man Letters Are Gaining Wide Acceptance

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Tall man (uppercase) letters are used within a drug name to highlight its primary dissimilarities and help to differentiate look-alike names.¹ Several studies have shown that highlighting sections of words using tall man lettering can make similar drug names easier to distinguish,² and fewer errors are made when tall man letters are used to differentiate products with look-alike names.^{3,4}

The Institute for Safe Medication Practices (ISMP),⁵⁻⁷ the FDA,⁸ The Joint Commission,⁹ and other safety-conscious organizations such as the National Association of Boards of Pharmacy (NABP)¹⁰ have promoted the use of tall man letters as one means of reducing confusion between similar drug names. From a survey conducted by the ISMP in 2008, most

respondents appeared to agree. Nearly all of those surveyed (87%) felt that the use of tall man letters by the medical product industry helped to reduce errors in drug selection, and two-thirds (64%) reported that tall man lettering actually prevented them from dispensing or administering the wrong medication.

A fully alphabetized list of drug names with tall man lettering can be found at www.ismp.org/Tools/tallmanletters.pdf.¹¹ A partial list of drug names that have been approved by the FDA is presented in Table 1. Additional examples are shown in Table 2.

SCOPE AND EFFECTIVENESS OF TALL MAN LETTERS

Approximately 50% of all survey respondents reported using tall man letters in conjunction with pharmacy-generated product and shelf labels, computer screens, and medication administration records. Half to three-quarters of respondents who used tall man letters with look-alike drug name pairs

felt that this strategy was effective in reducing the risk of errors, depending on where it was used.

Use of the tall man letters on computer-generated pharmacy labels was the most prevalent and was considered to be most effective, whereas use of the letters on preprinted order forms was among the least prevalent and was considered to be least effective. In general, between one-quarter and one-third of respondents were undecided about the effectiveness of tall man letters, but very few reported that the letters were wholly ineffective in reducing the risk of errors. The use of tall man letters was less widely reported for drugs listed on prescriber order entry screens and smart pump libraries.

For respondents who used tall man letters, 40% stated that they were using this error-reduction strategy for 1 to 16 drug name pairs; 28% were using it for 17 to 25 name pairs; 18% were using it for 26 to 36 name pairs; and 14% used it for more than 36 drug name pairs. Three-quarters of respondents (78%) who used tall man letters for look-alike drug name pairs included all or some of the FDA name pairs from the FDA's Name Differentiation Project;⁸ however, 20% were not sure whether their list of drug name pairs included any or all of the FDA name pairs. This implies that awareness of the project might not have been widespread among health care practitioners.

METHODS OF EXPRESSING LETTER CHARACTERS

When respondents were asked to rank various methods of distinguishing unique letter characters in look-alike name pairs, the use of tall man (uppercase) letters was, by far, the most prevalent first choice. Other methods were ranked in the following order: font differentiation, color background, italics, underline, and reverse print (e.g., a dark background with white lettering). Some respondents also suggested using bold letters and enlarging the font size to help

TABLE 1 Examples of FDA-Approved Generic Drug Names With Tall Man Letters

Drug Name	Confused With
bu PROP ion	bus PIR one
chlorpro MAZINE	chlorpro PAMIDE
clomi PHENE	clomi PRAMINE
cyclo SERINE	cyclo SPORINE
DOBUT amine	DOP amine
gly BURIDE	gli PIZIDE
medoxy PROGESTER one	methyl PREDNIS olone - methyl TESTOSTER one
ni CARD ipine	NIFE dipine
predniso LONE	predni SONE
sulfi SOXAZOLE	sulf ADIAZINE
TOLBUT amide	TOLAZ amide
vin CRIS tine	vin BLAS tine

Brand names start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and might not be readily recognized as brand names. No brand names are shown in Table 1.

Adapted from *ISMP Newsletter*, 2011.¹¹

Table 2 Examples of Additional Drug Names With Tall Man Letters

Drug Name	Confused With
am LODIP ine	a MIL oride
ARIP iprazole	RABE prazole
AVIN za*	INV anz*
car BAM azepine	OX carbazepine
CARBO platin	CIS platin
ce FAZ olin	cefo TE tan – cef OX itin – cef TAZ idime – cef TRIA Xone
cefo TE tan	ce FAZ olin – cef OX itin – cef TAZ idime – cef TRIA Xone
Cele BREX *	Cele XA *
clonaze PAM	clo NID ine – clo ZAP ine – LOR azepam
DOCE taxel	PA clitaxel
e PHED rine	EPINEPH rine
fenta NYL	SUF entanil
guai FEN esin	guan FACINE
Huma LOG *	Humu LIN *
HYDRO morphone	morphine
La MIC tal*	Lam ISIL *
Nex AVAR *	Nex IUM *
Novo LIN *	Novo LOG *
oxy CODONE	HYDRO codone– Oxy CONTIN *
PA clitaxel	DOCE taxel
Pri LOSEC *	PRO zac*
qui NINE	qui NID ine
RABE prazole	ARIP iprazole
Sand IMMUNE *	Sando STATIN *
SUF entanil	fenta NYL
sulf ADIAZINE	sulfa SALA zine
tra MAD ol	tra ZOD one
val ACY clovir	val GAN ciclovir
Zy PREXA *	Zyr TEC *

* Brand names start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and might not be readily recognized as brand names. An asterisk follows all brand names in this table.

Adapted from *ISMP Newsletter*, 2011.¹¹

practitioners distinguish between products with look-alike names.

TALL MAN LETTERING WITH SPECIFIC NAME PAIRS

Three-quarters of respondents (76%–77%) agreed that the tall man letters that were suggested in the survey helped to differentiate NovoLOG and NovoLIN and HumaLOG and HumuLIN (see Table 2). About two-thirds of respondents (60%–66%) agreed that tall man letters helped to prevent mixups between oxyCODONE and OxyCONTIN, ceFAZolin and ceftriaxone, and FLUoxetine and DULOxetine.

Fewer than half of the respondents

considered only one drug name pair in the survey to be effective: clonazePAM and LORazePAM. Respondents who suggested an alternative often left the PAM part of both drug names in small letters, suggesting that drawing attention to PAM in both drug names could contribute to sameness.¹¹

ISMP'S LIST OF NAME PAIRS WITH TALL MAN LETTERS

One primary reason for conducting this survey was to use the findings to prepare an unofficial list of look-alike drug name pairs with suggested tall man letters to guide practitioners and health care organizations. This effort was not in-

tended to replace safety testing of drug names to prevent name similarities before marketing a product. Many respondents shared their thoughts about other drug name pairs that might benefit from the use of tall man letters that were not included in our survey. We reviewed each suggestion carefully, placing emphasis on the potential for patient harm, the frequency of use for each medication, and the need to keep the list short enough to avoid diluting the effectiveness of the tall man letters.

One of the difficulties of using tall man letters is the lack of standardization regarding which name pairs to include as well as which letters to present in uppercase. There is some evidence to support the use of tall man letters to reduce the risk of confusion between look-alike drug names,²⁻⁴ but little evidence is available concerning which dissimilar letters in each drug name should be highlighted. To help promote standardization, the ISMP suggests that the tall man lettering scheme provided by the FDA and the ISMP for the drug name pairs be followed consistently.

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