

# FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man (Mixed Case) Letters

Since 2008, ISMP has maintained a list of drug name pairs or larger groupings with recommended, uppercase and bolded tall man (mixed case) letters to help draw attention to the dissimilarities in look-alike drug names. The list includes mostly generic-generic drug name pairs, although a few brand-brand or brand-generic name pairs are also included. The US Food and Drug Administration (FDA) list of drug names with recommended tall man letters was initiated in 2001 with the agency's Name Differentiation Project ([www.ismp.org/ext/1072](http://www.ismp.org/ext/1072)).

While numerous studies between 2000 and 2021 have demonstrated the ability of tall man letters alone or in conjunction with other text enhancements to improve the accuracy of drug name perception and reduce errors due to drug name similarity,<sup>1-12</sup> some studies have suggested that the evidence is conflicting or the strategy is ineffective.<sup>13-16</sup> The evidence has been mixed due in large part to methodological differences and significant study limitations. However, because gaps still exist in our full understanding of the role of tall man lettering in the clinical setting, ISMP is participating in a 4-year Northwestern University (Chicago) research project, led by Bruce L. Lambert, PhD, and funded by FDA, to assess the comparative effectiveness of various methods of drug name text enhancements and the ability of tall man lettering to reduce errors during drug selection. Meanwhile, there is sufficient evidence to suggest that the simple and straightforward technique of using tall man letters is worth implementing as one among numerous strategies to mitigate the risk of errors due to similar drug names.

To await irrefutable, scientific proof of effectiveness minimizes and undervalues the study findings and anecdotal evidence available today<sup>17</sup> that support this important risk-reduction strategy. As such, the use of tall man letters has been endorsed by ISMP, The Joint Commission (TJC) (recommended but not required), FDA

(as part of its Name Differentiation Project), as well as other national and international organizations, including the World Health Organization (WHO) and the International Medication Safety Network (IMSN).<sup>18</sup>

**Table 1** (page 2) provides an alphabetized list of FDA-approved established drug names with recommended tall man letters.

**Table 2** (starting on page 3) provides an alphabetized list of additional drug names with recommendations from ISMP regarding the use and placement of tall man letters. This is not an official list approved by FDA. It is intended for voluntary use by healthcare practitioners, drug information vendors, and medication technology vendors. Any product label changes by manufacturers require FDA approval.

To promote standardization regarding which letters to present in uppercase/bold, ISMP follows a tested methodology whenever possible called the CD3 rule.<sup>19</sup> The methodology suggests working from the left of the drug name first by capitalizing all the characters to the right once 2 or more dissimilar letters are encountered, and then, working from the right, returning 2 or more letters common to both words to lowercase letters. When the rule cannot be applied because there are no common letters on the right side of the name, the methodology suggests capitalizing the central part of the word only. When application of this rule fails to lead to the best tall man lettering option (e.g., makes names appear too similar, makes names hard to read based on pronunciation), an alternative option is considered.

To promote consistency, ISMP suggests following the bolded, tall man lettering schemes provided by FDA and ISMP for the drug name pairs listed in **Tables 1** (page 2) and **2** (starting on page 3).

## FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man Letters

Table 1. FDA-Approved List of Generic Drug Names with Tall Man (Mixed Case) Letters	
Drug Name With Tall Man Letters	Confused With
aceta <b>ZOLAMIDE</b>	aceto <b>HEXAMIDE*</b>
aceto <b>HEXAMIDE*</b>	aceta <b>ZOLAMIDE</b>
bu <b>PROP</b> ion	bus <b>PIR</b> one
bus <b>PIR</b> one	bu <b>PROP</b> ion
<b>CARBO</b> platin	<b>CIS</b> platin
chlorpro <b>MAZINE</b>	chlorpro <b>PAMIDE</b>
chlorpro <b>PAMIDE</b>	chlorpro <b>MAZINE</b>
<b>CIS</b> platin	<b>CARBO</b> platin
clomi <b>PHENE</b>	clomi <b>PRAMINE</b>
clomi <b>PRAMINE</b>	clomi <b>PHENE</b>
cyclo <b>SERINE</b>	cyclo <b>SPORINE</b>
cyclo <b>SPORINE</b>	cyclo <b>SERINE</b>
<b>DAUNO</b> rubicin	<b>DOXO</b> rubicin
dimenhy <b>DRINATE</b>	diphenhy <b>DRAMINE</b>
diphenhy <b>DRAMINE</b>	dimenhy <b>DRINATE</b>
<b>DOBUT</b> amine	<b>DOP</b> amine
<b>DOP</b> amine	<b>DOBUT</b> amine
<b>DOXO</b> rubicin	<b>DAUNO</b> rubicin
gli <b>PIZIDE</b>	gly <b>BURIDE</b>
gly <b>BURIDE</b>	gli <b>PIZIDE</b>
hydr <b>ALAZINE</b>	<b>HYDRO</b> morphone — hydro <b>OXY</b> zine
<b>HYDRO</b> morphone	hydr <b>ALAZINE</b> — hydro <b>OXY</b> zine
hydro <b>OXY</b> zine	hydr <b>ALAZINE</b> — <b>HYDRO</b> morphone
medroxy <b>PROGESTER</b> one	methyl <b>PREDNISolone</b> — methyl <b>TESTOSTER</b> one
methyl <b>PREDNISolone</b>	medroxy <b>PROGESTER</b> one — methyl <b>TESTOSTER</b> one
methyl <b>TESTOSTER</b> one	methyl <b>PREDNISolone</b> — medroxy <b>PROGESTER</b> one
mig <b>AL</b> stat	mig <b>LU</b> stat
mig <b>LU</b> stat	mig <b>AL</b> stat
mito <b>XANTRONE</b>	Not specified
ni <b>CARD</b> ipine	<b>NIFE</b> dipine
<b>NIFE</b> dipine	ni <b>CARD</b> ipine
predni <b>SONE</b>	predni <b>SONE</b>
predni <b>SONE</b>	predni <b>SONE</b>
risperi <b>DONE</b>	<b>ROPINIR</b> ole
<b>ROPINIR</b> ole	risperi <b>DONE</b>
sulf <b>ADIAZINE</b>	sulf <b>SOXAZOLE*</b>
sulf <b>SOXAZOLE*</b>	sulf <b>ADIAZINE</b>
<b>TOLAZ</b> amide	<b>TOLBUT</b> amide*
<b>TOLBUT</b> amide*	<b>TOLAZ</b> amide
tra <b>MAD</b> ol	tra <b>ZOD</b> one
tra <b>ZOD</b> one	tra <b>MAD</b> ol
vin <b>BLAS</b> tine	vin <b>CRIS</b> tine
vin <b>CRIS</b> tine	vin <b>BLAS</b> tine

\* These drugs have been discontinued and are not marketed in the United States.

## FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man Letters

Table 2. ISMP List of Additional Drug Names with Tall Man (Mixed Case) Letters	
Drug Name With Tall Man Letters	Confused With
<b>AL</b> fentanil	fenta <b>NYL</b> — <b>SUF</b> entanil
<b>ALPRAZ</b> olam	clonaze <b>PAM</b> — <b>LOR</b> azepam
a <b>MIL</b> oride	am <b>LODIP</b> ine
am <b>LODIP</b> ine	a <b>MIL</b> oride
<b>ARIP</b> iprazole	<b>RABE</b> prazole
aza <b>CITID</b> ine	aza <b>THIO</b> prine
aza <b>THIO</b> prine	aza <b>CITID</b> ine
<b>BUPI</b> vacaine	<b>ROPI</b> vacaine
car <b>BAM</b> azepine	<b>OX</b> carbazepine
<b>CARBO</b> platin <sup>†</sup>	<b>CIS</b> platin <sup>†</sup>
ce <b>FAZ</b> olin	cefo <b>TE</b> tan — ce <b>FOX</b> itin — cef <b>TAZ</b> idime — cef <b>TRIA</b> Xone
cefo <b>TE</b> tan	ce <b>FAZ</b> olin — ce <b>FOX</b> itin — cef <b>TAZ</b> idime — cef <b>TRIA</b> Xone
ce <b>FOX</b> itin	ce <b>FAZ</b> olin — cefo <b>TE</b> tan — cef <b>TAZ</b> idime — cef <b>TRIA</b> Xone
cef <b>TAZ</b> idime	ce <b>FAZ</b> olin — cefo <b>TE</b> tan — ce <b>FOX</b> itin — cef <b>TRIA</b> Xone
cef <b>TRIA</b> Xone	ce <b>FAZ</b> olin — cefo <b>TE</b> tan — ce <b>FOX</b> itin — cef <b>TAZ</b> idime
Cele <b>BREX</b> <sup>‡</sup>	Cele <b>XA</b> <sup>‡</sup>
Cele <b>XA</b> <sup>‡</sup>	Cele <b>BREX</b> <sup>‡</sup>
chlordiaze <b>POXIDE</b>	chlorpro <b>MAZINE</b> <sup>†</sup>
chlorpro <b>MAZINE</b> <sup>†</sup>	chlordiaze <b>POXIDE</b>
<b>CIS</b> platin <sup>†</sup>	<b>CARBO</b> platin <sup>†</sup>
clo <b>BAZ</b> am	clonaze <b>PAM</b>
clonaze <b>PAM</b>	<b>ALPRAZ</b> olam — clo <b>BAZ</b> am — clo <b>NID</b> ine — clo <b>ZAP</b> ine — <b>LOR</b> azepam
clo <b>NID</b> ine	clonaze <b>PAM</b> — clo <b>ZAP</b> ine — Klon <b>OPIN</b> <sup>‡</sup>
clo <b>ZAP</b> ine	clonaze <b>PAM</b> — clo <b>NID</b> ine
cyclo <b>PHOS</b> phamide	cyclo <b>SERINE</b> <sup>†</sup> — cyclo <b>SPORINE</b> <sup>†</sup>
cyclo <b>SERINE</b> <sup>†</sup>	cyclo <b>PHOS</b> phamide — cyclo <b>SPORINE</b> <sup>†</sup>
cyclo <b>SPORINE</b> <sup>†</sup>	cyclo <b>PHOS</b> phamide — cyclo <b>SERINE</b> <sup>†</sup>
<b>DACTIN</b> omycin	<b>DAPTO</b> mycin
<b>DAPTO</b> mycin	<b>DACTIN</b> omycin
<b>DEPO</b> -Medrol <sup>‡</sup>	<b>SOLU</b> -Medrol <sup>‡</sup>
dex <b>AMETH</b> asone	dexmede <b>TOMID</b> ine
dexmede <b>TOMID</b> ine	dex <b>AMETH</b> asone
diaze <b>PAM</b>	dil <b>TIAZ</b> em
dil <b>TIAZ</b> em	diaze <b>PAM</b>
<b>DOCE</b> taxel	<b>PACL</b> itaxel
<b>DOXO</b> rubicin <sup>†</sup>	<b>IDA</b> rubicin
dron <b>ABIN</b> ol	dro <b>PERID</b> ol

continued on page 4 >

\* These drugs have been discontinued and are not marketed in the United States.

† These drug names are also on the FDA list.

‡ Brand names always start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and may not be readily recognized as brand names. A double dagger follows all brand names on the ISMP list.

## FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man Letters

**Table 2. ISMP List of Additional Drug Names with Tall Man (Mixed Case) Letters** (continued from page 3)

Drug Name With Tall Man Letters	Confused With
dro <b>PER</b> idol	dron <b>AB</b> inol
<b>DUL</b> oxetine	<b>FLU</b> oxetine — <b>PAR</b> oxetine
e <b>PHED</b> rine	<b>EPINEPH</b> rine
<b>EPINEPH</b> rine	e <b>PHED</b> rine
epi <b>RUB</b> icin	eri <b>BUL</b> in
eri <b>BUL</b> in	epi <b>RUB</b> icin
fenta <b>NYL</b>	<b>AL</b> fentanil — <b>SUF</b> entanil
flavox <b>ATE</b>	fluvox <b>A</b> MINE
<b>FLU</b> oxetine	<b>DUL</b> oxetine — <b>PAR</b> oxetine
flu <b>PHENAZ</b> ine	fluvox <b>A</b> MINE
fluvox <b>A</b> MINE	flavox <b>ATE</b> — flu <b>PHENAZ</b> ine
guai <b>FEN</b> esin	guan <b>FAC</b> INE
guan <b>FAC</b> INE	guai <b>FEN</b> esin
Huma <b>LOG</b> †	Humu <b>LIN</b> †
Humu <b>LIN</b> †	Huma <b>LOG</b> †
hydr <b>ALAZ</b> INE†	hydro <b>CHLORO</b> thiazide — hydro <b>OXY</b> zine†
hydro <b>CHLORO</b> thiazide	hydr <b>ALAZ</b> INE† — hydro <b>OXY</b> zine†
<b>HYDRO</b> codone	oxy <b>CODONE</b>
<b>HYDRO</b> morphine†	morphine — oxy <b>MOR</b> phine
<b>HYDROXY</b> progesterone	medroxy <b>PROGESTER</b> one†
hydr <b>OXY</b> zine†	hydr <b>ALAZ</b> INE† — hydro <b>CHLORO</b> thiazide
<b>IDA</b> rubicin	<b>DOXO</b> rubicin† — idaru <b>CIZU</b> mab
idaru <b>CIZU</b> mab	<b>IDA</b> rubicin
in <b>FLIX</b> imab	ri <b>TUX</b> imab
<b>ISO</b> tretinoin	tretinoin
Klono <b>PIN</b> ‡	clo <b>NID</b> ine
La <b>MIC</b> tal‡	Lam <b>ISIL</b> ‡
Lam <b>ISIL</b> ‡	La <b>MIC</b> tal‡
lami <b>VUD</b> ine	lamo <b>TRI</b> gine
lamo <b>TRI</b> gine	lami <b>VUD</b> ine
lev <b>ETIR</b> acetam	lev <b>OCARN</b> itine — levo <b>FLOX</b> acin
lev <b>OCARN</b> itine	lev <b>ETIR</b> acetam
levo <b>FLOX</b> acin	lev <b>ETIR</b> acetam
<b>LEVO</b> leucovorin	leucovorin
<b>LOR</b> azepam	<b>ALPRAZ</b> olam — clonaze <b>PAM</b>
medroxy <b>PROGESTER</b> one†	<b>HYDROXY</b> progesterone
met <b>FORMIN</b>	metro <b>NIDAZOLE</b>

continued on page 5 >

\* These drugs have been discontinued and are not marketed in the United States.

† These drug names are also on the FDA list.

‡ Brand names always start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and may not be readily recognized as brand names. A double dagger follows all brand names on the ISMP list.

## FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man Letters

**Table 2. ISMP List of Additional Drug Names with Tall Man (Mixed Case) Letters** (continued from page 4)

Drug Name With Tall Man Letters	Confused With
methazol <b>AMIDE</b>	meth <b>IMA</b> zole — met <b>OL</b> azone
meth <b>IMA</b> zole	methazol <b>AMIDE</b> — met <b>OL</b> azone
met <b>OL</b> azone	methazol <b>AMIDE</b> — meth <b>IMA</b> zole
metro <b>NIDAZOLE</b>	met <b>FORMIN</b>
metyra <b>PONE</b>	metyro <b>SINE</b>
metyro <b>SINE</b>	metyra <b>PONE</b>
mi <b>FEPRIS</b> tone	mi <b>SOPROStol</b>
mig <b>AL</b> stat <sup>†</sup>	mig <b>LU</b> stat <sup>†</sup>
mig <b>LU</b> stat <sup>†</sup>	mig <b>AL</b> stat <sup>†</sup>
mi <b>SOPROStol</b>	mi <b>FEPRIS</b> tone
mito <b>MY</b> cin	mito <b>XANTRONE</b> <sup>‡</sup>
mito <b>XANTRONE</b> <sup>‡</sup>	mito <b>MY</b> cin
Nex <b>AVAR</b> <sup>‡</sup>	Nex <b>IUM</b> <sup>‡</sup>
Nex <b>IUM</b> <sup>‡</sup>	Nex <b>AVAR</b> <sup>‡</sup>
ni <b>CARD</b> ipine <sup>†</sup>	<b>NIFE</b> dipine <sup>†</sup> — ni <b>MOD</b> ipine
<b>NIFE</b> dipine <sup>†</sup>	ni <b>CARD</b> ipine <sup>†</sup> — ni <b>MOD</b> ipine
ni <b>MOD</b> ipine	ni <b>CARD</b> ipine <sup>†</sup> — <b>NIFE</b> dipine <sup>†</sup>
Novo <b>LIN</b> <sup>‡</sup>	Novo <b>LOG</b> <sup>‡</sup>
Novo <b>LOG</b> <sup>‡</sup>	Novo <b>LIN</b> <sup>‡</sup>
<b>OLAN</b> Zapine	<b>QUET</b> iapine
<b>OX</b> carbazepine	car <b>BAM</b> azepine
oxy <b>BUTY</b> nin	oxy <b>CODONE</b> — Oxy <b>CONTIN</b> <sup>‡</sup> — oxy <b>MOR</b> phone
oxy <b>CODONE</b>	<b>HYDRO</b> codone — oxy <b>BUTY</b> nin — Oxy <b>CONTIN</b> <sup>‡</sup> — oxy <b>MOR</b> phone
Oxy <b>CONTIN</b> <sup>‡</sup>	oxy <b>BUTY</b> nin — oxy <b>CODONE</b> — oxy <b>MOR</b> phone
oxy <b>MOR</b> phone	<b>HYDRO</b> morphone <sup>†</sup> — oxy <b>BUTY</b> nin — oxy <b>CODONE</b> — Oxy <b>CONTIN</b> <sup>‡</sup>
<b>PACL</b> itaxel	<b>DOCE</b> taxel
<b>PAR</b> oxetine	<b>DUL</b> oxetine — <b>FLU</b> oxetine
<b>PAZOP</b> anib	<b>PONAT</b> inib
<b>PEME</b> trexed	<b>PRALAT</b> rexate
penicill <b>AMINE</b>	penicillin
<b>PENT</b> obarbital	<b>PHEN</b> obarbital
<b>PHEN</b> obarbital	<b>PENT</b> obarbital
<b>PHYS</b> ostigmine	py <b>RID</b> ostigmine
<b>PONAT</b> inib	<b>PAZOP</b> anib
<b>PRALAT</b> rexate	<b>PEME</b> trexed
Pri <b>LOSEC</b> <sup>‡</sup>	<b>PRO</b> zac <sup>‡</sup>
<b>PRO</b> zac <sup>‡</sup>	Pri <b>LOSEC</b> <sup>‡</sup>

continued on page 6 >

\* These drugs have been discontinued and are not marketed in the United States.

† These drug names are also on the FDA list.

‡ Brand names always start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and may not be readily recognized as brand names. A double dagger follows all brand names on the ISMP list.

## FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man Letters

**Table 2. ISMP List of Additional Drug Names with Tall Man (Mixed Case) Letters** (continued from page 5)

Drug Name With Tall Man Letters	Confused With
py <b>RID</b> ostigmine	<b>PHYS</b> ostigmine
<b>QU</b> etiapine	<b>OLAN</b> Zapine
qui <b>NID</b> ine	qui <b>NINE</b>
qui <b>NINE</b>	qui <b>NID</b> ine
<b>RAB</b> eprazole	<b>ARI</b> Piprazole
ra <b>NITID</b> ine*	ri <b>MANTAD</b> ine
rif <b>AMP</b> in	rif <b>AXIM</b> in
rif <b>AXIM</b> in	rif <b>AMP</b> in
ri <b>MANTAD</b> ine	ra <b>NITID</b> ine*
Risper <b>DAL</b> †	<b>ROPINIR</b> ole†
risperi <b>DONE</b> †	<b>ROPINIR</b> ole†
ri <b>TUX</b> imab	in <b>FLIX</b> imab
romi <b>DEPS</b> in	romi <b>PLOST</b> im
romi <b>PLOST</b> im	romi <b>DEPS</b> in
<b>ROPINIR</b> ole†	Risper <b>DAL</b> † — risperi <b>DONE</b> †
<b>ROP</b> ivacaine	<b>BU</b> Pivacaine
Sand <b>IMMUNE</b> ‡	Sando <b>STATIN</b> ‡
Sando <b>STATIN</b> ‡	Sand <b>IMMUNE</b> ‡
s <b>AX</b> agliptin	<b>SIT</b> agliptin
<b>SIT</b> agliptin	s <b>AX</b> agliptin — <b>SUMAT</b> riptan
Solu- <b>CORTEF</b> ‡	<b>SOLU</b> -Medrol‡
<b>SOLU</b> -Medrol‡	<b>DEPO</b> -Medrol‡ — Solu- <b>CORTEF</b> ‡
<b>SORAF</b> enib	<b>SUNIT</b> inib
<b>SUF</b> entanil	<b>AL</b> fentanil — fenta <b>NYL</b>
sulf <b>ADIAZINE</b> †	sulf <b>SALAZ</b> ine
sulf <b>SALAZ</b> ine	sulf <b>ADIAZINE</b> †
<b>SUMAT</b> riptan	<b>SIT</b> agliptin — <b>ZOLM</b> itriptan
<b>SUNIT</b> inib	<b>SORAF</b> enib
tia <b>GAB</b> ine	ti <b>ZAN</b> idine
ti <b>ZAN</b> idine	tia <b>GAB</b> ine
tra <b>MAD</b> ol†	tra <b>ZOD</b> one†
tra <b>ZOD</b> one†	tra <b>MAD</b> ol†
val <b>ACY</b> clovir	val <b>GANC</b> iclovir
val <b>GANC</b> iclovir	val <b>ACY</b> clovir
<b>ZOLM</b> itriptan	<b>SUMAT</b> riptan
Zy <b>PREXA</b> †	Zyr <b>TEC</b> †
Zyr <b>TEC</b> †	Zy <b>PREXA</b> †

\* These drugs have been discontinued and are not marketed in the United States.

† These drug names are also on the FDA list.

‡ Brand names always start with an uppercase letter. Some brand names incorporate tall man letters in initial characters and may not be readily recognized as brand names. A double dagger follows all brand names on the ISMP list.

# FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man Letters

## References

- 1) DeHenau C, Becker MW, Bello NM, Liu S, Bix L. Tallman lettering as a strategy for differentiation in look-alike, sound-alike drug names: the role of familiarity in differentiating drug doppelgängers. *Appl Ergon*. 2016;52:77-84.
- 2) Filik R, Purdy K, Gale A, Gerrett D. Drug name confusion: evaluating the effectiveness of capital (“tall man”) letters using eye movement data. *Soc Sci Med*. 2004;59(12):2597-601.
- 3) Filik R, Purdy K, Gale A, Gerrett D. Labeling of medicines and patient safety: evaluating methods of reducing drug name confusion. *Hum Factors*. 2006;48(1):39-47.
- 4) Grasha A. *Cognitive systems perspective on human performance in the pharmacy: implications for accuracy, effectiveness, and job satisfaction Report No. 062100*. National Association of Chain Drug Stores (NACDS); 2000.
- 5) Darker IT, Gerret D, Filik R, Purdy KJ, Gale AG. The influence of ‘tall man’ lettering on errors of visual perception in the recognition of written drug names. *Ergonomics*. 2011;54(1):21-33.
- 6) Or CKL, Chan AHS. Effects of text enhancements on the differentiation performance of orthographically similar drug names. *Work*. 2014;48(4):521-8.
- 7) Or CKL, Wang H. A comparison of the effects of different typographical methods on the recognizability of printed drug names. *Drug Saf*. 2014;37(5):351-9.
- 8) Filik R, Price J, Darker I, Gerrett D, Purdy K, Gale A. The influence of tall man lettering on drug name confusion: a laboratory-based investigation in the UK using younger and older adults and healthcare practitioners. *Drug Saf*. 2010;33(8):677-87.
- 9) Gabriele S. The role of typography in differentiating look-alike/sound-alike drug names. *Healthc Q*. 2006; 9(Spec No):88-95.
- 10) Wang H, Tao D, Yan M. Effects of text enhancement on reduction of look-alike drug name confusion: a systematic review and meta-analysis. *Qual Manag Health Care*. 2021;30(4):233-43.
- 11) Chan AS, Muller RJ, Mancuso CE. Description of a tall-man lettering program for look-alike and sound-alike antineoplastic agents. *Am J Health Syst Pharm*. 2018;75(8):512-3.
- 12) Larmene-Beld KHM, Alting EK, Taxis K. A systematic literature review on strategies to avoid look-alike errors of labels. *Eur J Clin Pharmacol*. 2018;74(8):985-93.
- 13) Schell KL. Using enhanced text to facilitate recognition of drug names: evidence from two experimental studies. *Appl Ergon*. 2009;40(1):82-90.
- 14) Irwin A, Mearns K, Watson M, Urquhart J. The effect of proximity, tall man lettering, and time pressure on accurate visual perception of drug names. *Hum Factors*. 2013;55(2):253-66.
- 15) Zhong W, Feinstein JA, Patel NS, Dai D, Feudtner C. Tall man lettering and potential prescription errors: a time series analysis of 42 children’s hospitals in the USA over 9 years. *BMJ Qual Saf*. 2016;25(4):233-40.
- 16) Lambert BL, Schroeder SR, Galanter WL. Does tall man lettering prevent drug name confusion errors? Incomplete and conflicting evidence suggest need for definitive study. *BMJ Qual Saf*. 2016;25(4):213-7.
- 17) Leape LL, Berwick DM, Bates DW. What practices will most improve safety? Evidence-based medicine meets patient safety. *JAMA*. 2002;288(4):501-7.
- 18) Position statement on improving the safety of international non-proprietary names of medicines (INNs). Horsham (PA): International Medication Safety Network; November 2011.
- 19) Gerrett D, Gale AG, Darker IT, Filik R, Purdy KJ. *Tall man lettering. Final report of the use of tall man lettering to minimise selection errors of medicine names in computer prescribing and dispensing systems*. Loughborough University Enterprises Ltd; 2009.