

Lecture (4)

Use of Roman Numerals on Prescriptions

Roman numerals commonly are used in prescription writing to designate quantities, as the: (1) quantity of medication to be dispensed and/or (2) quantity of medication to be taken by the patient per dose. The student may recall the eight letters of fixed values used in the Roman system: ss 1/2 L or l 50 I, i, or j 1 C or c 100 V or v 5 D or d 500 X or x 10 M or m 1000 The student also may recall that the following rules apply in the use of Roman numerals: 1. A letter repeated once or more, repeats its value (e.g., xx 20; xxx 30). 2. One or more letters placed after a letter of greater value increases the value of the greater letter (e.g., vi 6; xij 12; lx 60). 3. A letter placed before a letter of greater value decreases the value of the greater letter (e.g., iv 4; xl 40 Capital or lower case letters may be used. Dotting the lowercase “i” and/or placement of a horizontal line above the “i” with the dot atop serves to avoid misinterpretation. A “j” may be used as the final “i” in a sequence (e.g., viij). When Roman numerals are used, the tradition of placing the numerals after the term or symbol generally is followed (e.g., capsules no. xxiv; fluidounces xij).

Use of Abbreviations and Symbols

- A whole number should be shown without a decimal point and without a terminal zero (e.g., express 4 milligrams as 4 mg and not as 4.0 mg).
- A quantity smaller than one should be shown with a zero preceding the decimal point (e.g., express two tenths of a milligram as 0.2 mg and not as .2 mg).
- Leave a space between a number and the unit (e.g., 10 mg and not 10mg).
- Use whole numbers when possible and not equivalent decimal fractions (e.g., use 100 mg and not 0.1 g).
- Use the full names of drugs and not abbreviations (e.g., use phenobarbital and not PB).
- Use USP designations for units of measure (e.g., for grams, use g and not Gm or gms; for milligrams, use mg and not mgs or mgm).
- Spell out “units” (e.g., use 100 units and not 100 u or 100 U since an illegible U may be misread as a zero, resulting in a 10-fold error, i.e., 1000). The abbreviation I.U., which stands for “International Units,” should also be spelled out so it is not interpreted as I.V., meaning “intravenous.”
- Certain abbreviations that could be mistaken for other abbreviations should be written out (e.g., write “right eye” or “left eye” rather than use o.d. or o.l., and spell out “right ear” and “left ear” rather than use a.d. or a.l.)
- Spell out “every day” rather than use q.d.; “every other day,” rather than q.o.d.; and “four times a day,” rather than q.i.d to avoid misinterpretation.
- Avoid using d for “day” or “dose” because of the profound difference between terms, as in mg/kg/ day versus mg/kg/dose.
- Integrate capital or “tall man” letters to distinguish between “look alike” drug names, such as AggreSTAT and AggreNOX; hydrOXYZINE and hydrALAZINE; and DIGoxin and DESoxyn.
- Amplify the prescriber’s directions on the prescription label when needed for clarity (e.g., use “Swallow one (1) capsule with water in the morning” rather than “one cap in a.m.”).

TABLE 4.2 SELECTED ABBREVIATIONS, ACRONYMS, AND SYMBOLS USED IN PRESCRIPTIONS AND MEDICATION ORDERS^{a,b}

ABBREVIATION (LATIN ORIGIN ^c)	MEANING	ABBREVIATION (LATIN ORIGIN ^c)	MEANING
Prescription Filling Directions		pt.	pint
aa. or (ana)	of each	qt.	quart
ad (ad)	up to; to make	ss or $\overline{ss}$ (semissem)	one half
disp. (dispensatur)	dispense	tbsp.	tablespoonful
div. (dividatur)	divide	tsp.	teaspoonful
d.t.d. (dentur tales doses)	give of such doses	Signal/Patient Instructions	
ft (fiat)	make	a.c. (ante cibos)	before meals
M. (mice)	mix	ad lib. (ad libitum)	at pleasure, freely
No. (numero)	number	admin	administer
non rep. or NR (non repatur)	do not repeat	A.M. (ante meridiem)	morning
q.s. (quantum sufficit)	a sufficient quantity	aq. (aqua)	water
q.s. ad (quantum sufficiat ad)	a sufficient quantity to make	ATC	around the clock
Sig. (Signa)	write (directions on label)	b.i.d. (bis in die)	twice a day
Quantities and Measurement		c or $\overline{c}$ (cum)	with
BSA	body surface area	d (die)	day
cm ³	cubic centimeter or milliliter (mL)	dil. (dilutus)	dilute
f or fl (fluidus)	fluid	et	and
fl $\overline{3}$ or f $\overline{3}$	fluid dram ($\approx$ teaspoonful, 5 mL)	h. or hr. (hora)	hour
fl $\overline{3}$ ss or f $\overline{3}$ ss	half-fluidounce ($\approx$ tablespoonful, 15mL)	h.s. (hora somni)	at bedtime
g	gram	i.c. (inter cibos)	between meals
gal	gallon	min. (minutum)	minute
gtt (gutta)	drop	m&n	morning and night
gtt (gutta)	drop	N&V	nausea and vomiting
kg	kilogram	noct. (nocte)	night
L	liter	NPO (non per os)	nothing by mouth
m ² or M ²	square meter	p.c. (post cibos)	after meals
mcg	microgram	P.M. (post meridiem)	afternoon; evening
mEq	milliequivalent	p.o. (per os)	by mouth (orally)
mg	milligram	p.p. (per prout)	as needed
mg/kg	milligrams (of drug) per kilogram (of body weight)	q (quaque)	every
mg/m ²	milligrams (of drug) per square meter (of body surface area)	qAM	every morning
mL	milliliter	q4h, q8h, etc.	every ___ hours
		q.i.d. (quarter in die)	four times a day
		rep. (repetatur)	repeat
		s (sine)	without
		s.i.d. (semel in die)	once a day
		s.o.s. (si opus sit)	if there is need; as needed
		stat. (statim)	immediately
		t.i.d. (ter in die)	three times a day
		ut dict. (ut dictum)	as directed

TABLE 4.2 Continued

ABBREVIATION (LATIN ORIGIN ^a)	MEANING	ABBREVIATION (LATIN ORIGIN ^a)	MEANING
EES	erythromycin ethylsuccinate	D5NS	dextrose 5% in normal saline (0.9% sodium chloride)
HC	hydrocortisone	D5W	dextrose 5% in water
HCTZ	hydrochlorothiazide	D10W	dextrose 10% in water
MTX	methotrexate	elix.	elixir
NTG	nitroglycerin	inj.	injection
Clinical		NS	normal saline
BM	bowel movement	½NS	half-strength normal saline
BP	blood pressure	oint or ungt.	ointment
BS	blood sugar	(unguentum)	
CHD	coronary heart disease	pulv. (<i>pulvis</i>)	powder
CHF	congestive heart failure	RL, R/L or LR	Ringer's Lactate or Lactated Ringer's
GERD	gastrointestinal reflux disease	sol. (<i>solutio</i>)	solution
GI	gastrointestinal	supp.	suppository
GFR	glomerular filtration rate	(suppositorium)	
GU	genitourinary	susp.	suspension
HA	headache	syr. (<i>syrupus</i>)	syrup
HBP	high blood pressure	tab. (<i>tabletta</i>)	tablet
HRT	hormone replacement therapy	Routes of Administration	
HT or HTN	hypertension	CIV	continuous (24 hour) intravenous infusion
IOP	intraocular pressure	ID	intraocular
MI	myocardial ischemia/ infarction	IM	intramuscular
OA	osteoarthritis	IT	intrathecal
Pt	patient	IV	intravenous
SOB	shortness of breath		

Examples of prescription directions to the pharmacist:

- (a) M. ft. ung. Mix and make an ointment.
- (b) Ft. sup. no xii Make 12 suppositories.
- (c) M. ft. cap. d.t.d. no. xxiv Mix and make capsules. Give 24 such doses.

Examples of prescription directions to the patient:

- (a) Caps. i. q.i.d. p.c. et h.s. Take one (1) capsule four (4) times a day after each meal and at bedtime.
- (b) gtt. ii rt. eye every a.m. Instill two (2) drops in the right eye every morning.
- (c) tab. ii stat tab. 1 q. 6 h. 7 d. Take two (2) tablets immediately, then take one (1) tablet every 6 hours for 7 days

CASE IN POINT 4.1: A pharmacist received the following prescription, which requires the correct interpretation of abbreviations prior to engaging in calculations, compounding, labeling, and dispensing.

Rx

Lisinopril
Hydrochlorothiazide aa. 10 mg
Calcium Phosphate 40 mg
Lactose q.s. ad 300 mg
M.ft. cap. i D.T.D. # 30
Sig: cap. i AM a.c.

- (a) How many milligrams each of lisinopril and hydrochlorothiazide are required to fill the prescription?
- (b) What is the weight of lactose required?
- (c) Translate the label directions to the patient.