Preface to Table of Example UCUM Codes for Electronic Messaging

Attached is an enumeration of The Unified Code for Units of Measure (UCUM), designed to make it clear what the UCUM syntax would produce for specific unit patterns in electronic communication. This early version, composed in a relatively short time frame, is based on content provided by Intermountain Healthcare, from a National Library of Medicine/Regenstrief Institute project that is analyzing raw units from more than 23 laboratory sources and their translation to UCUM (http://unitsofmeasure.org/) and from the HL7 table of units. In this version we have not included all of the content from all of these sources. Specifically for this version, we excluded units for which we could not quickly find definitions or clear patterns of usage, units of measure that we believed would only be used in pharmacy dispensing, and units used for purely clinical reporting (e.g. cigarette pack-years). We have included most of the pure metric units that were in the source table whether they apply directly to the laboratory or not because they will be generally useful and because we could not always be sure what should be excluded.

We have included a row number in the first column of the table. Please use this number when suggesting changes or identifying problems with a given term. This number has no significance beyond identifying a unique row in this table. In particular, it does not officially denote a UCUM code. The table is ordered alphabetically by the content of the column Description of the Unit.

Some details of the UCUM syntax follow, but for a more complete explanation than this please refer to the full UCUM specification at http://unitsofmeasure.org/.

The UCUM codes that you see in the table are mixed-case ASCII text. The standard metric units all have their usual mixed-case representation, so milligram per deciliter is portrayed in UCUM as mg/dL. US, British, and other special units are usually enclosed in square brackets, e.g. inches is [in_i] (inches international) — the "i" is needed because the British inch and the US inch were slightly different until about 1980 when all parties agreed the international inch. In UCUM a dot (.) means multiply, a number to the right of a string means a power, and the divisor sign (/) means divide. So m2 means meter squared.

Strings that are often included in units of measure but are adornments for human reading and that are not formally units of measure are enclosed in curlicue brackets {}. For example, mg/mol{creat} means milligram per mole of creatinine.

UCUM does not formally specify what to put inside of the curlicue brackets except to insist there be no spaces, because spaces will break the parser and the UCUM units converter. In principle, users could adjust the contents of any such curlicue brackets because they aren't a formal part of UCUM. In this table, we encourage the use of the same string consistently within curlicue brackets, e.g. {creat} for creatinine and {Hb} for hemoglobin. However, this is not an absolute constraint of UCUM, and, when needed, users may adjust the content within the curlicue brackets.

Beginning with Version 1.4, the Revisions Log is now an Appendix at the end of the document.

Version History (see revisions log in Appendix)

- Version 1.4, Released 07/18/2016
- Version 1.3, Released 09/26/2014
- Version 1.2, Released 02/06/2014
- Version 1.1, Released 10/04/2011
- Version 1.0, Released 09/23/2011

♦ Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Table of Example UCUM Codes for Electronic Messaging, Version 1.3

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
1	10.L/min	10 liter per minute
2	10.L/(min.m2)	10 liter per minute per square meter
3	10.uN.s/(cm5.m2)	10 micronewton second per centimeter to the fifth power per square meter
4	10*4/uL	10 thousand per microliter
5	10*8	100 million
6	24.h	24 hour
7	{absorbance}	absorbance
8	{activity}	activity
9	[AU]	allergy unit
10	{AHF'U}	American Hospital Formulary unit
11	Α	ampere
12	A/m	ampere per meter
13	[arb'U]	arbitrary unit
14	[arb'U]/mL	arbitrary unit per milliliter
15	{ARU}	aspirin response unit
16	atm	atmosphere
17	ag/{cell}	attogram per cell
18	bar	bar
19	Вq	Becquerel
20	[beth'U]	Bethesda unit
21	10*9/L	billion per liter
22	10*9/uL	billion per microliter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
23	10*9/mL	billion per milliliter
24	{binding_index}	binding index
25	[bdsk'U]	Bodansky unit
26	{CAG_repeats}	CAG trinucleotide repeats
27	cal	calorie
28	{cells}	cells
29	{cells}/[HPF]	cells per high power field
30	{cells}/uL	cells per microliter
31	cg	centigram
32	cL	centiliter
33	cm	centimeter
34	cm[Hg]	centimeter of mercury
35	cm[H2O]	centimeter of water
36	cm[H2O]/L/s	centimeter of water per liter per second
37	cm[H2O]/s/m	centimeter of water per second per meter
38	сР	centipoise
39	cSt	centistoke
40	{delta_OD}	change in (delta) optical density
41	{clock_time}	clock time e.g 12:30PM
42	[CFU]	colony forming unit
43	[CFU]/L	colony forming unit per liter
44	[CFU]/mL	colony forming unit per milliliter
45	{CAE'U}	complement activity enzyme unit
46	{CH100'U}	complement CH100 unit
47	{copies}	copies

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
48	{copies}/ug	copies per microgram
49	{copies}/mL	copies per milliliter
50	{count}	count
51	{CPM}	counts per minute
52	{CPM}/10*3{cell}	counts per minute per thousand cells
53	[cin_i]	cubic inch (international)
54	m3/s	cubic meter per second
55	d	day
56	dB	decibel
57	dg	decigram
58	dL	deciliter
59	dm	decimeter
60	deg	degree (plane angle)
61	Cel	degree Celsius
62	[degF]	degree Fahrenheit
63	K	degree Kelvin
64	K/W	degree Kelvin per Watt
65	deg/s	degree per second
66	daL/min	dekaliter per minute
67	daL/min/m2	dekaliter per minute per square meter
68	{dilution}	dilution
69	[dr_av]	dram (US and British)
70	[drp]	drop (1/12 milliliter)
71	dyn.s/cm	dyne second per centimeter
72	dyn.s/(cm.m2)	dyne second per centimeter per square meter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
73	{Ehrlich'U}	Ehrlich unit
74	{Ehrlich'U}/100.g	Ehrlich unit per 100 gram
75	{Ehrlich'U}/(2.h)	Ehrlich unit per 2 hour
76	{Ehrlich'U}/d	Ehrlich unit per day
77	{Ehrlich'U}/dL	Ehrlich unit per deciliter
78	{EIA_index}	EIA index
79	{EIA_titer}	EIA titer
80	{EIA'U}	EIA unit
81	{EIA'U}/U	EIA unit per enzyme unit
82	{EV}	EIA value
83	eV	electron Volt
84	{ELISA'U}	ELISA unit
85	U	enzyme unit
86	U/10	enzyme unit per 10
87	U/10*10	enzyme unit per 10 billion
88	U/10*10{cells}	enzyme unit per 10 billion cells
89	U/(10.g){feces}	enzyme unit per 10 gram of feces
90	U/(12.h)	enzyme unit per 12 hour
91	U/(2.h)	enzyme unit per 2 hour
92	U/(24.h)	enzyme unit per 24 hour
93	U/10*9	enzyme unit per billion
94	U/d	enzyme unit per day
95	U/dL	enzyme unit per deciliter
96	U/g	enzyme unit per gram
97	U/g{creat}	enzyme unit per gram of creatinine

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
98	U/g{Hb}	enzyme unit per gram of hemoglobin
99	U/g{protein}	enzyme unit per gram of protein
100	U/h	enzyme unit per hour
101	U/kg{Hb}	enzyme unit per kilogram of hemoglobin
102	U/L	enzyme unit per liter
103	U{25Cel}/L	enzyme unit per liter at 25 deg Celsius
104	U{37Cel}/L	enzyme unit per liter at 37 deg Celsius
105	U/mL	enzyme unit per milliliter
106	U/mL{RBCs}	enzyme unit per milliliter of red blood cells
107	U/mmol{creat}	enzyme unit per millimole of creatinine
108	U/10*6	enzyme unit per million
109	U/min	enzyme unit per minute
110	U/s	enzyme unit per second
111	U/10*12	enzyme unit per trillion
112	U/10*12{RBCs}	enzyme unit per trillion red blood cells
113	eq	equivalent
114	eq/L	equivalent per liter
115	eq/umol	equivalent per micromole
116	eq/mL	equivalent per milliliter
117	eq/mmol	equivalent per millimole
118	erg	erg
119	F	Farad
120	fg	femtogram
121	fL	femtoliter
122	fm	femtometer

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
123	fmol	femtomole
124	fmol/g	femtomole per gram
125	fmol/L	femtomole per liter
126	fmol/mg	femtomole per milligram
0 127	fmol/mg{cyt_prot}	femtomole per milligram of cytosol protein
0 128	fmol/mg{prot}	femtomole per milligram of protein
129	fmol/mL	femtomole per milliliter
130	[foz_us]	fluid ounce (US)
131	{FIU}	fluorescent intensity unit
132	[ft_i]	foot (international)
133	{fraction}	fraction
134	[Ch]	French (catheter gauge)
135	{GAA_repeats}	GAA trinucleotide repeats
136	[gal_us]	gallon (US)
137	{genomes}/mL	genomes per milliliter
138	{Globules}/[HPF]	globules (drops) per high power field
139	g	gram
140	g.m	gram meter
141	g.m/{beat}	gram meter per heart beat
142	g{creat}	gram of creatinine
143	g{Hb}	gram of hemoglobin
144	g{total_nit}	gram of total nitrogen
145	g{total_prot}	gram of total protein
146	g{wet_tissue}	gram of wet tissue
147	g/kg/(8.h)	gram per kilogram per 8 hour

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
148	g/(100.g)	gram per 100 gram
149	g/(12.h)	gram per 12 hour
150	g/(24.h)	gram per 24 hour
151	g/(3.d)	gram per 3 days
152	g/(4.h)	gram per 4 hour
153	g/(48.h)	gram per 48 hour
154	g/(5.h)	gram per 5 hour
155	g/(6.h)	gram per 6 hour
156	g/(72.h)	gram per 72 hour
157	g/(8.h){shift}	gram per 8 hour shift
158	g/cm3	gram per cubic centimeter
159	g/d	gram per day
160	g/dL	gram per deciliter
161	g/g	gram per gram
162	g/g{creat}	gram per gram of creatinine
163	g/g{globulin}	gram per gram of globulin
164	g/g{tissue}	gram per gram of tissue
165	g/h	gram per hour
166	g/h/m2	gram per hour per square meter
167	g/kg	gram per kilogram
168	g/kg/(8.h){shift}	gram per kilogram per 8 hour shift
169	g/kg/d	gram per kilogram per day
170	g/kg/h	gram per kilogram per hour
171	g/kg/min	gram per kilogram per minute
172	g/L	gram per liter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
173	g/mg	gram per milligram
174	g/mL	gram per milliliter
175	g/mmol	gram per millimole
176	g/min	gram per minute
177	g/mol{creat}	gram per mole of creatinine
178	g/{specimen}	gram per specimen
179	g/m2	gram per square meter
180	g/{total_output}	gram per total output
181	g/{total_weight}	gram per total weight
182	Gy	Gray
183	{beats}/min	heart beats per minute
184	Н	Henry
185	Hz	Hertz
186	[HPF]	high power field
187	h	hour
188	[APL'U]/mL	IgA anticardiolipin unit per milliliter**
189	[APL'U]	IgA anticardiolipin unit**
	ardiolipin can also be ciolipin" or "antiphosph	called "biologic activity of
190	{APS'U}	IgA antiphosphatidylserine unit
191	[GPL'U]/mL	IgG anticardiolipin unit per milliliter**
192	[GPL'U]	IgG anticardiolipin unit**
193	{GPS'U}	IgG antiphosphatidylserine unit
194	[MPL'U]/mL	IgM anticardiolipin unit per milliliter**
195	[MPL'U]	IgM anticardiolipin unit**
196	{MPS'U}	IgM antiphosphatidylserine unit

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
197	{MPS'U}/mL	lgM antiphosphatidylserine unit per milliliter
198	{ImmuneComplex' U}	immune complex unit
199	{ISR}	immune status ratio
200	{IFA_index}	immunofluorescence assay index
201	{IFA_titer}	Immunofluorescence assay titer
202	[in_i]	inch (international)
203	[in_i'H2O]	inch (international) of water
204	{index_val}	index value
205	{HA_titer}	influenza hemagglutination titer
206	{INR}	international normalized ratio
207	[IU]	international unit
208	[IU]/(2.h)	international unit per 2 hour
209	[IU]/(24.h)	international unit per 24 hour
210	[IU]/10*9{RBCs}	international unit per billion red blood cells
211	[IU]/d	international unit per day
212	[IU]/dL	international unit per deciliter
213	[IU]/g	international unit per gram
214	[IU]/g{Hb}	international unit per gram of hemoglobin
215	[IU]/h	international unit per hour
216	[IU]/kg	international unit per kilogram
217	[IU]/kg/d	international unit per kilogram per day
218	[IU]/L	international unit per liter
219	[IU]/L{37Cel}	international unit per liter at 37 degrees Celsius
220	[IU]/mg{creat}	international unit per milligram of creatinine
221	[IU]/mL	international unit per milliliter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
222	[IU]/min	international unit per minute
223	J	joule
224	J/L	joule per liter
225	{JDF'U}	Juvenile Diabetes Foundation unit
226	{JDF'U}/L	Juvenile Diabetes Foundation unit per liter
227	{KCT'U}	kaolin clotting time
228	kat	katal
229	kat/kg	katal per kilogram
230	kat/L	katal per liter
231	kU	kilo enzyme unit
232	kU/g	kilo enzyme unit per gram
233	kU/L	kilo enzyme unit per liter
234	kU/L{class}	kilo enzyme unit per liter class
235	kU/mL	kilo enzyme unit per milliliter
236	k[IU]/L	kilo international unit per liter
237	k[IU]/mL	kilo international unit per milliliter
238	kcal	kilocalorie
239	kcal/d	kilocalorie per day
240	kcal/h	kilocalorie per hour
241	kcal/kg/(24.h)	kilocalorie per kilogram per 24 hour
242	kcal/[oz_av]	kilocalorie per ounce (US & British)
243	kg	kilogram
244	kg.m/s	kilogram meter per second
245	kg/m3	kilogram per cubic meter
246	kg/h	kilogram per hour

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
247	kg/L	kilogram per liter
248	kg/min	kilogram per minute
249	kg/mol	kilogram per mole
250	kg/s	kilogram per second
251	kg/(s.m2)	kilogram per second per square meter
252	kg/m2	kilogram per square meter
253	kL	kiloliter
254	km	kilometer
255	kPa	kilopascal
256	ks	kilosecond
257	[ka'U]	King Armstrong unit
258	{KRONU'U}/mL	Kronus unit per milliliter
259	[knk'U]	Kunkel unit
260	L	liter
261	L/(24.h)	liter per 24 hour
262	L/(8.h)	liter per 8 hour
263	L/d	liter per day
264	L/h	liter per hour
265	L/kg	liter per kilogram
266	L/L	liter per liter
267	L/min	liter per minute
268	L/(min.m2)	liter per minute per square meter
269	L/s	liter per second
270	L/s/s2	liter per second per square second
271	{Log_copies}/mL	log (base 10) copies per milliliter

Row # UCUM (not a	CODE	
code)	_0021	Description of the Unit (using UCUM descriptions where they exist)
272 {Log_l	U}	log (base 10) international unit
273 {Log_l	U}/mL	log (base 10) international unit per milliliter
274 {Log}		log base 10
275 [LPF]		low power field
276 Im		lumen
277 lm.m2		lumen square meter
278 {Lyme }	_index_value	Lyme index value
279 [mclg'	U]	Maclagan unit
280 Ms		megasecond
281 m		meter
282 m/s		meter per second
283 m/s2		meter per square second
284 t		metric ton
285 uU/g		micro enzyme unit per gram
286 uU/L		micro enzyme unit per liter
287 uU/ml	-	micro enzyme unit per milliliter
288 u[IU]		micro international unit
289 u[IU]/i	mL	micro international unit per milliliter
290 ueq		microequivalent
291 ueq/L		microequivalent per liter
292 ueq/m	ıL	microequivalent per milliliter
293 ug		microgram
294 ug/g{f	eces}	microgram per gram of feces
295 ug{FEL	J}/mL	microgram fibrinogen equivalent unit per milliliter
296 ug/(10	00.g)	microgram per 100 gram

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
297	ug/(24.h)	microgram per 24 hour
298	ug/(8.h)	microgram per 8 hour
299	ug/m3	microgram per cubic meter
300	ug/d	microgram per day
301	ug/dL	microgram per deciliter
302	ug/dL{RBCs}	microgram per deciliter of red blood cells
303	ug/g	microgram per gram
304	ug/g{creat}	microgram per gram of creatinine
305	ug/g{dry_tissue}	microgram per gram of dry tissue
306	ug/g{dry_wt}	microgram per gram of dry weight
307	ug/g{hair}	microgram per gram of hair
308	ug/g{Hb}	microgram per gram of hemoglobin
309	ug/g{tissue}	microgram per gram of tissue
310	ug/h	microgram per hour
311	ug/kg	microgram per kilogram
312	ug/kg/(8.h)	microgram per kilogram per 8 hour
313	ug/kg/d	microgram per kilogram per day
314	ug/kg/h	microgram per kilogram per hour
315	ug/kg/min	microgram per kilogram per minute
316	ug/L	microgram per liter
317	ug/L{RBCs}	microgram per liter of red blood cells
318	ug/L/(24.h)	microgram per liter per 24 hour
319	ug/mg	microgram per milligram
320	ug/mg{creat}	microgram per milligram of creatinine
321	ug/mL	microgram per milliliter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
322	ug/mL{class}	microgram per milliliter class
323	ug/mL{eqv}	microgram per milliliter equivalent
324	ug/mmol	microgram per millimole
325	ug/mmol{creat}	microgram per millimole of creatinine
326	ug/min	microgram per minute
327	ug/ng	microgram per nanogram
328	ug/{specimen}	microgram per specimen
329	ug/[sft_i]	microgram per square foot (international)
330	ug/m2	microgram per square meter
331	u[IU]/L	microinternational unit per liter
332	ukat	microkatal
333	uL	microliter
334	uL/(2.h)	microliter per 2 hour
335	uL/h	microliter per hour
336	um	micrometer
337	umol	micromole
338	umol{BCE}/mol	micromole bone collagen equivalent per mole
339	umol/(2.h)	micromole per 2 hour
340	umol/(24.h)	micromole per 24 hour
341	umol/(8.h)	micromole per 8 hour
342	umol/d	micromole per day
343	umol/dL	micromole per deciliter
344	umol/dL{GF}	micromole per deciliter of glomerular filtrate
345	umol/g	micromole per gram
346	umol/g{creat}	micromole per gram of creatinine

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
347	umol/g{Hb}	micromole per gram of hemoglobin
348	umol/h	micromole per hour
349	umol/kg	micromole per kilogram
350	umol/kg{feces}	micromole per kilogram of feces
351	umol/L	micromole per liter
352	umol/L{RBCs}	micromole per liter of red blood cells
353	umol/L/h	micromole per liter per hour
354	umol/umol	micromole per micromole
355	umol/umol{creat}	micromole per micromole of creatinine
356	umol/mg	micromole per milligram
357	umol/mg{creat}	micromole per milligram of creatinine
358	umol/mL	micromole per milliliter
359	umol/mL/min	micromole per milliliter per minute
360	umol/mmol	micromole per millimole
361	umol/mmol{creat}	micromole per millimole of creatinine
362	umol/min	micromole per minute
363	umol/min/g	micromole per minute per gram
364	umol/min/g{mucos a}	micromole per minute per gram of mucosa
◊ 365	umol/min/g{prot}	micromole per minute per gram of protein
366	umol/min/L	micromole per minute per liter
367	umol/mol	micromole per mole
368	umol/mol{creat}	micromole per mole of creatinine
369	umol/mol{Hb}	micromole per mole of hemoglobin
370	um/s	microns per second
371	uOhm	microOhm

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
372	us	microsecond
373	uV	microvolt
374	[mi_i]	mile (international)
375	mU/g	milli enzyme unit per gram
376	mU/mL	milli enzyme unit per milliliter
377	mU/mL/min	milli enzyme unit per milliliter per minute
378	mU/mmol{creat}	milli enzyme unit per millimole of creatinine
379	mU/mmol{RBCs}	milli enzyme unit per millimole of red blood cells
380	m[IU]/mL	milli international unit per milliliter
381	mU/g{Hb}	milli enzyme unit per gram of hemoglobin
◊ 382	mU/g{prot}	milli enzyme unit per gram of protein
383	mU/L	milli enzyme unit per liter
384	mU/mg	milli enzyme unit per milligram
385	mU/mg{creat}	milli enzyme unit per milligram of creatinine
386	m[IU]/L	milli international unit per liter
387	mA	milliampere
388	mbar	millibar
389	mbar/L/s	millibar per liter per second
390	mbar.s/L	millibar second per liter
391	meq	milliequivalent
392	meq/(2.h)	milliequivalent per 2 hour
393	meq/(24.h)	milliequivalent per 24 hour
394	meq/(8.h)	milliequivalent per 8 hour
395	meq/d	milliequivalent per day
396	meq/dL	milliequivalent per deciliter

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Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
397	meq/g	milliequivalent per gram
398	meq/g{creat}	milliequivalent per gram of creatinine
399	meq/h	milliequivalent per hour
400	meq/kg	milliequivalent per kilogram
401	meq/kg/h	milliequivalent per kilogram per hour
402	meq/L	milliequivalent per liter
403	meq/mL	milliequivalent per milliliter
404	meq/min	milliequivalent per minute
405	meq/{specimen}	milliequivalent per specimen
406	meq/m2	milliequivalent per square meter
407	meq/{total_volume }	milliequivalent per total volume
408	mg	milligram
409	mg{FEU}/L	milligram fibrinogen equivalent unit per liter
410	mg/(10.h)	milligram per 10 hour
411	mg/(12.h)	milligram per 12 hour
412	mg/(2.h)	milligram per 2 hour
413	mg/(24.h)	milligram per 24 hour
414	mg/(6.h)	milligram per 6 hour
415	mg/(72.h)	milligram per 72 hour
416	mg/(8.h)	milligram per 8 hour
417	mg/{collection}	milligram per collection
418	mg/m3	milligram per cubic meter
419	mg/d	milligram per day
420	mg/d/{1.73_m2}	milligram per day per 1.73 square meter
421	mg/dL	milligram per deciliter

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
422	mg/dL{RBCs}	milligram per deciliter of red blood cells
423	mg/g	milligram per gram
424	mg/g{creat}	milligram per gram of creatinine
425	mg/g{dry_tissue}	milligram per gram of dry tissue
426	mg/g{feces}	milligram per gram of feces
427	mg/g{tissue}	milligram per gram of tissue
428	mg/g{wet_tissue}	milligram per gram of wet tissue
429	mg/h	milligram per hour
430	mg/kg	milligram per kilogram
431	mg/kg/(8.h)	milligram per kilogram per 8 hour
432	mg/kg/d	milligram per kilogram per day
433	mg/kg/h	milligram per kilogram per hour
434	mg/kg/min	milligram per kilogram per minute
435	mg/L	milligram per liter
436	mg/L{RBCs}	milligram per liter of red blood cells
437	mg/mg	milligram per milligram
438	mg/mg{creat}	milligram per milligram of creatinine
439	mg/mL	milligram per milliliter
440	mg/mmol	milligram per millimole
441	mg/mmol{creat}	milligram per millimole of creatinine
442	mg/min	milligram per minute
443	mg/{specimen}	milligram per specimen
444	mg/m2	milligram per square meter
445	mg/{total_output}	milligram per total output
446	mg/{total_volume}	milligram per total volume

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
447	mg/wk	milligram per week
448	mL	milliliter
449	mL{fetal_RBCs}	milliliter of fetal red blood cells
450	mL/(10.h)	milliliter per 10 hour
451	mL/(12.h)	milliliter per 12 hour
452	mL/(2.h)	milliliter per 2 hour
453	mL/(24.h)	milliliter per 24 hour
454	mL/(4.h)	milliliter per 4 hour
455	mL/(5.h)	milliliter per 5 hour
456	mL/(6.h)	milliliter per 6 hour
457	mL/(72.h)	milliliter per 72 hour
458	mL/(8.h)	milliliter per 8 hour
0 459	mL/(8.h)/kg	milliliter per 8 hour per kilogram
460	mL/cm[H2O]	milliliter per centimeter of water
461	mL/d	milliliter per day
462	mL/dL	milliliter per deciliter
463	mL/{beat}	milliliter per heart beat
464	mL/{beat}/m2	milliliter per heart beat per square meter
465	mL/h	milliliter per hour
466	mL/kg	milliliter per kilogram
467	mL/kg/(8.h)	milliliter per kilogram per 8 hour
468	mL/kg/d	milliliter per kilogram per day
469	mL/kg/h	milliliter per kilogram per hour
470	mL/kg/min	milliliter per kilogram per minute
471	mL/mbar	milliliter per millibar

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
472	mL/mm	milliliter per millimeter
473	mL/min	milliliter per minute
474	mL/min/{1.73_m2}	milliliter per minute per 1.73 square meter
475	mL/min/m2	milliliter per minute per square meter
476	mL/s	milliliter per second
477	mL/[sin_i]	milliliter per square inch (international)
478	mL/m2	milliliter per square meter
479	mm	millimeter
480	mm[Hg]	millimeter of mercury
Note: 1a	atm=760Torr=760mmHg	g=101kPa=101000Pa=14.7psi
481	mm[H2O]	millimeter of water
482	mm/h	millimeter per hour
483	mm/min	millimeter per minute
484	mmol	millimole
485	mmol/(12.h)	millimole per 12 hour
486	mmol/(2.h)	millimole per 2 hour
487	mmol/(24.h)	millimole per 24 hour
488	mmol/(5.h)	millimole per 5 hour
489	mmol/(6.h)	millimole per 6 hour
490	mmol/(8.h)	millimole per 8 hour
491	mmol/d	millimole per day
492	mmol/dL	millimole per deciliter
493	mmol/{ejaculate}	millimole per ejaculate
494	mmol/g	millimole per gram
495	mmol/g{creat}	millimole per gram of

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
496	mmol/h	millimole per hour
497	mmol/h/mg{Hb}	millimole per hour per milligram of hemoglobin
0 498	mmol/h/mg{prot}	millimole per hour per milligram of protein
499	mmol/kg	millimole per kilogram
500	mmol/kg/(8.h)	millimole per kilogram per 8 hour
501	mmol/kg/d	millimole per kilogram per day
502	mmol/kg/h	millimole per kilogram per hour
503	mmol/kg/min	millimole per kilogram per minute
504	mmol/L	millimole per liter
505	mmol/L{RBCs}	millimole per liter of red blood cells
506	mmol/mmol	millimole per millimole
507	mmol/mmol{urea}	millimole per millimole of urea
508	mmol/mmol{creat}	millimole per millmole of creatinine
509	mmol/min	millimole per minute
510	mmol/mol	millimole per mole
511	mmol/mol{creat}	millimole per mole of creatinine
512	mmol/s/L	millimole per second per liter
513	mmol/{specimen}	millimole per specimen
514	mmol/m2	millimole per square meter
515	mmol/{total_vol}	millimole per total volume
516	10*6	million
517	10*6.[CFU]/L	million colony forming unit per liter
518	10*6.[IU]	million international unit
519	10*6/(24.h)	million per 24 hour
520	10*6/kg	million per kilogram

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
521	10*6/L	million per liter
522	10*6/uL	million per microliter
523	10*6/mL	million per milliliter
524	mosm	milliosmole
525	mosm/kg	milliosmole per kilogram
526	mosm/L	milliosmole per liter
527	mPa	millipascal
528	mPa.s	millipascal second
529	ms	millisecond
530	mV	millivolt
531	{minidrop}/min	minidrop per minute
532	{minidrop}/s	minidrop per second
533	min	minute
534	mol	mole
535	mol/	mole per
535	mol/m3	mole per cubic meter
536	mol/kg	mole per kilogram
537	mol/kg/s	mole per kilogram per second
538	mol/L	mole per liter
539	mol/mL	mole per milliliter
540	mol/mol	mole per mole
541	mol/s	mole per second
◊ 542	{#}/{platelet}	molecule per platelet
543	mo	month
544	{mm/dd/yyyy}	month-day-year

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
545	{M.o.M}	multiple of the median
546	{mutation}	mutation
547	nU/mL	nanoenzyme unit per milliliter
548	nU/{RBC}	nanoenzyme unit per red blood cell
549	ng	nanogram
550	ng{FEU}/mL	nanogram fibrinogen equivalent unit per milliliter
551	ng/(24.h)	nanogram per 24 hour
552	ng/(8.h)	nanogram per 8 hour
553	ng/d	nanogram per day
554	ng/dL	nanogram per deciliter
555	ng/U	nanogram per enzyme unit
556	ng/g	nanogram per gram
557	ng/g{creat}	nanogram per gram of creatinine
558	ng/h	nanogram per hour
559	ng/kg	nanogram per kilogram
560	ng/kg/(8.h)	nanogram per kilogram per 8 hour
561	ng/kg/h	nanogram per kilogram per hour
562	ng/kg/min	nanogram per kilogram per minute
563	ng/L	nanogram per liter
564	ng/mg	nanogram per milligram
565	ng/mg{creat}	nanogram per milligram of creatinine
◊ 566	ng/mg{prot}	nanogram per milligram of protein
567	ng/mg/h	nanogram per milligram per hour
568	ng/mL{RBCs}	nanogram per milliliter of red blood cells
569	ng/mL/h	nanogram per milliliter per hour

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
570	ng/10*6	nanogram per million
571	ng/10*6{RBCs}	nanogram per million red blood cells
572	ng/mL	nanogram per millliiter
573	ng/min	nanogram per minute
574	ng/s	nanogram per second
575	ng/m2	nanogram per square meter
576	nkat	nanokatal
577	nL	nanoliter
578	nm	nanometer
579	nm/s/L	nanometer per second per liter
580	nmol	nanomole
581	nmol{BCE}	nanomole bone collagen equivalent
582	nmol{BCE}/L	nanomole bone collagen equivalent per liter
◊ 583	nmol/mmol{creat}	nanomole bone collagen equivalent per millimole of creatinine
◊ 584	nmol/mg{prot}	nanomole of 1/2 cystine per milligram of protein
585	nmol{ATP}	nanomole of ATP
586	nmol/(24.h)	nanomole per 24 hour
587	nmol/d	nanomole per day
588	nmol/dL	nanomole per deciliter
589	nmol/dL{GF}	nanomole per deciliter of glomerular filtrate
590	nmol/g	nanomole per gram
591	nmol/g{creat}	nanomole per gram of creatinine
592	nmol/g{dry_wt}	nanomole per gram of dry weight
593	nmol/h/L	nanomole per hour per liter

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Row # UCUM_CODE (not a code)		Description of the Unit (using UCUM descriptions where they exist)			
0 594	nmol/h/mg{prot}	nanomole per hour per milligram of protein			
595	nmol/L	nanomole per liter			
596	nmol/L{RBCs}	nanomole per liter of red blood cells			
597	nmol/L/mmol{crea t}	nanomole per liter per millimole of creatinine			
◊ 598	nmol/m/mg{prot}	nanomole per meter per milligram of protein			
599	nmol/umol{creat}	nanomole per micromole of creatinine			
600	nmol/mg	nanomole per milligram			
601	nmol/mg{creat}	nanomole per milligram of creatinine			
◊ 602	nmol/mg{prot}	nanomole per milligram of protein			
◊ 603	nmol/mg{prot}/h	nanomole per milligram of protein per hour			
604	nmol/mg/h	nanomole per milligram per hour			
605	nmol/mL	nanomole per milliliter			
606	nmol/mL/h	nanomole per milliliter per hour			
607	nmol/mL/min	nanomole per milliliter per minute			
608	nmol/mmol	nanomole per millimole			
609	nmol/mmol{creat}	nanomole per millimole of creatinine			
610	nmol/min	nanomole per minute			
611	nmol/min/mg{Hb}	nanomole per minute per milligram of hemoglobin			
0 612	nmol/min/mg{prot }	nanomole per minute per milligram of protein			
613	nmol/min/mL	nanomole per minute per milliliter			
614	nmol/min/10*6{cel ls}	nanomole per minute per million cells			
615	nmol/mol	nanomole per mole			
616	nmol/nmol	nanomole per nanomole			
617	nmol/s	nanomole per second			
618	nmol/s/L	nanomole per second per liter			

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)		
619	ns	nanosecond		
620	N	Newton		
621	N.cm	Newton centimeter		
622	N.s	Newton second		
623	{#}	number		
624	{#}/[HPF]	number per high power field		
625	{#}/L	number per liter		
626	{#}/[LPF]	number per low power field		
627	{#}/uL	number per microliter		
628	{#}/mL	number per milliliter		
629	{#}/min	number per minute		
630	Ohm	Ohm		
631	Ohm.m	Ohm meter		
632	10*5	one hundred thousand		
633	{OD_unit}	optical density unit		
634	osm	osmole		
635	osm/kg	osmole per kilogram		
636	osm/L	osmole per liter		
637	[oz_av]	ounce (US and British)		
638	{Pan_Bio'U}	panbio unit		
639	[ppb]	part per billion		
640	[ppm]	part per million		
641	[ppm]{v/v}	part per million in volume per volume		
642	[ppth]	part per thousand		
643	[pptr]	part per trillion		

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)				
644	Pa	Pascal				
645	/10*10	per 10 billion				
646	/10*4{RBCs}	per 10 thousand red blood cells				
647	/100	per 100				
648	/100{cells}	per 100 cells				
649	/100{neutrophils}	per 100 neutrophils				
650	/100{spermatozoa}	per 100 spermatozoa				
651	/100{WBCs}	per 100 white blood cells				
652	/[arb'U]	per arbitrary unit				
653	/10*9	per billion				
654	/cm[H2O]	per centimeter of water				
655	/m3	per cubic meter				
656	/d	per day				
657	/dL	per deciliter				
658	/{entity}	per entity				
659	/U	per enzyme unit				
660	/g	per gram				
661	/g{creat}	per gram of creatinine				
662	/g{Hb}	per gram of hemoglobin				
663	/g{tot_nit}	per gram of total nitrogen				
664	/g{tot_prot}	per gram of total protein				
665	/g{wet_tis}	per gram of wet tissue				
666	/[HPF]	per high power field				
667	/h	per hour				
668	/[IU]	per international unit				

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)		
669	/kg	per kilogram		
670	/kg{body_wt}	per kilogram of body weigl		
671	/L	per liter		
672	/[LPF]	per low power field		
673	/uL	per microliter		
674	/mg	per milligram		
675	/mL	per milliliter		
676	/mm	per millimeter		
677	/mmol{creat}	per millimole of creatinine		
678	/10*6	per million		
679	/min	per minute		
680	/mo	per month		
681	/{OIF}	per oil immersion field		
682	/s	per second		
683	/m2	per square meter		
684	/10*3	per thousand		
685	/10*3.{RBCs}	per thousand red blood cells		
686	/10*12	per trillion		
687	/10*12{RBCs}	per trillion red blood cells		
688	/(12.h)	per twelve hour		
689	/wk	per week		
690	/a	per year		
691	%	percent		
692	%{loss_AChR}	percent loss of acetylcholine receptor		
693	%{penetration}	percent penetration		

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # UCUM_CODE (not a code)		Description of the Unit (using UCUM descriptions where they exist)				
694	%{abnormal}	percent abnormal				
695	%{activity}	percent activity				
696	%{aggregation}	percent aggregation				
697	%{at_60_min}	percent at 60 minute				
698	%{basal_activity}	percent basal activity				
699	%{binding}	percent binding				
700	%{blockade}	percent blockade				
701	%{blocked}	percent blocked				
702	%{bound}	percent bound				
703	%{breakdown}	percent breakdown				
704	%{vol}	percent by volume				
705	%{deficient}	percent deficient				
706	%{dose}	percent dose				
707	%{excretion}	percent excretion				
708	%{Hb}	percent hemoglobin				
709	%{hemolysis}	percent hemolysis				
710	%{index}	percent index				
711	%{inhibition}	percent inhibition				
712	%{loss}	percent loss				
713	%{lysis}	percent lysis				
714	%{normal}	percent normal				
0 715	%{pooled_plasma}	percent normal pooled plasma				
716	%{bacteria}	percent of bacteria				
717	%{baseline}	percent of baseline				
718	%{cells}	percent of cells				

Row # UCUM_CODE (not a code)		Description of the Unit (using UCUM descriptions where they exist)				
719	%{RBCs}	percent of red blood cells				
720	%{WBCs}	percent of white blood cell				
721	%{positive}	percent positive				
722	%{reactive}	percent reactive				
723	%{recovery}	percent recovery				
724	%{reference}	percent reference				
725	%{residual}	percent residual				
726	%{saturation}	percent saturation				
727	%{total}	percent total				
728	%{uptake}	percent uptake				
729	%{viable}	percent viable				
730	{percentile}	percentile				
731	[pH]	рН				
732	{phenotype}	phenotype				
733	рА	picoampere				
734	pg	picogram				
735	pg/{cell}	picogram per cell				
736	pg/dL	picogram per deciliter				
737	pg/L	picogram per liter				
738	pg/mg	picogram per milligram				
739	pg/mg{creat}	picogram per milligram of creatinine				
740	pg/mL	picogram per milliliter				
741	pg/mm	picogram per millimeter				
742	pg/{RBC}	picogram per red blood cell				
743	pkat	picokatal				

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)			
744	pL	picoliter			
745	pm	picometer			
746	pmol	picomole			
747	pmol/(24.h)	picomole per 24 hour			
748	pmol/d	picomole per day			
749	pmol/dL	picomole per deciliter			
750	pmol/g	picomole per gram			
0 751	pmol/h/mg{prot}	picomole per hour per milligram of protein			
752	pmol/h/mL	picomole per hour per milliliter			
753	pmol/L	picomole per liter			
754	pmol/umol	picomole per micromole			
755	pmol/umol{creat}	picomole per micromole of creatinine			
0 756	pmol/mg{prot}	picomole per milligram of protein			
757	pmol/mL	picomole per milliliter			
758	pmol/mmol{creat}	picomole per millimole of creatinine			
759	pmol/min	picomole per minute			
◊ 760	pmol/min/mg{prot }	picomole per minute per milligram of protein			
761	pmol/{RBC}	picomole per red blood cell			
762	ps	picosecond			
763	рТ	picotesla			
764	[pt_us]	pint (US)			
765	[lb_av]	pound (US and British)			
766	[psi]	pound per square inch			
767	[qt_us]	quart (US)			
768	{ratio}	ratio			

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist) red blood cell per microliter				
769	{RBC}/uL					
770	%{relative}	relative percent				
0 771	{rel_saturation}	relative saturation				
772	{Rubella_virus}	rubella virus				
773	{saturation}	saturation				
774	S	second				
775	s/{control}	second per control				
776	{shift}	shift				
777	S	Siemens				
778	Sv	Sievert				
779	{s_co_ratio}	signal to cutoff ratio				
780	{spermatozoa}/mL	spermatozoa per milliliter				
781	cm2	square centimeter				
782	cm2/s	square centimeter per second				
783	dm2/s2	square decimeter per square second				
784	[sft_i]	square foot (international)				
785	[sin_i]	square inch (international)				
786	m2	square meter				
787	m2/s	square meter per second				
788	mm2	square millimeter				
789	[syd_i]	square yard (international)				
790	{STDV}	standard deviation				
791	[tbs_us]	tablespoon (US)				
792	[tsp_us]	teaspoon (US)				
793	Т	Tesla				

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
794	10*3	thousand
795	10*3{copies}/mL	thousand copies per milliliter
796	10*3/L	thousand per liter
797	10*3/uL	thousand per microliter
798	10*3/mL	thousand per milliliter
799	10*3{RBCs}	thousand red blood cells
800	{TSI_index}	thyroid-stimulating immunoglobulin index
801	{titer}	titer
802	[todd'U]	Todd unit
803	Torr	Torr

Note: 1atm=760Torr=760mmHg=101kF	Pa=101000Pa=14.7psi

Row # (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)
804	10*12/L	trillion per liter
805	[oz_tr]	Troy ounce
806	[tb'U]	tuberculin unit
807	V	volt
808	Wb	Weber
809	wk	week
810	{WBCs}	white blood cells
811	[yd_i]	yard (international)
812	a	year

Appendix Revisions Log

Version 1.4, Released July 18, 2016

Row # Current Version (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correct ion (not a code)	Previous UCUM version (with Errors or Omissions)	Description of Change Made
259	[knk'U]	Kunkel unit	7/18/2016	RG	259	[knk'U]	deleted trailing spaces
685	/10*3{RBCs}	per thousand red blood cells	7/18/2016	RG	685	/10*3.{RBCs}	deleted dot notation

Version 1.3, Released September 26, 2014

Row # Current Version (not a code)	UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correct ion (not a code)	Previous UCUM version (with Errors or Omissions)	Description of Change Made
[removed]	mol/	mole per	9/24/2014	RG	535	mol/	Removed because redundant with mol (row 534).
127	fmol/mg{cyt_pr ot}	femtomole per milligram of cytosol protein	7/30/2014	RG	127	<pre>fmol/mg{cyt osol_protein }</pre>	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
128	fmol/mg{prot}	femtomole per milligram of protein	7/30/2014	RG	128	fmol/mg{pro tein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
365	umol/min/g{pr ot}	micromole per minute per gram of protein	7/30/2014	RG	365	umol/min/g{ protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
382	mU/g{prot}	milli enzyme unit per gram of protein	7/30/2014	RG	382	mU/g{protei n}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
459	mL/(8.h)/kg	milliliter per 8 hour per kilogram	9/23/2014	RG	459	mL(8.h)/kg	Corrected syntax to match narrative definition.
498	mmol/h/mg{pr ot}	millimole per hour per milligram of protein	7/30/2014	RG	498	mmol/h/mg{ protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
542	{#}/{platelet}	molecule per platelet	7/30/2014	RG	543	{molecule}/{ platelet}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
566	ng/mg{prot}	nanogram per milligram of protein	7/30/2014	RG	567	ng/mg{prote in}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths

♦ Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

583	nmol/mmol{cre at}	nanomole bone collagen equivalent per millimole of creatinine	7/30/2014	RG	584	nmol{BCE}/ mmol{creat}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
584	nmol/mg{prot}	nanomole of 1/2 cystine per milligram of protein	7/30/2014	RG	585	nmol{1/2cys} /mg{protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
594	nmol/h/mg{pro t}	nanomole per hour per milligram of protein	7/30/2014	RG	595	nmol/h/mg{ protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
598	nmol/m/mg{pr ot}	nanomole per meter per milligram of protein	7/30/2014	RG	599	nmol/m/mg{ protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
602	nmol/mg{prot}	nanomole per milligram of protein	7/30/2014	RG	603	nmol/mg{pr otein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
603	nmol/mg{prot}/ h	nanomole per milligram of protein per hour	7/30/2014	RG	604	nmol/mg{pr otein}/h	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
612	nmol/min/mg{p rot}	nanomole per minute per milligram of protein	7/30/2014	RG	613	nmol/min/m g{protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
715	%{pooled_plas ma}	percent normal pooled plasma	7/30/2014	RG	716	%{normal_p ooled_plasm a}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
751	pmol/h/mg{pro t}	picomole per hour per milligram of protein	7/30/2014	RG	752	pmol/h/mg{ protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
756	pmol/mg{prot}	picomole per milligram of protein	7/30/2014	RG	757	pmol/mg{pr otein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
760	pmol/min/mg{p rot}	picomole per minute per milligram of protein	7/30/2014	RG	761	pmol/min/m g{protein}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths
771	{rel_saturation}	relative saturation	7/30/2014	RG	772	{relative_sat uration}	abbreviated to shorten string to less than 20 characters to conform to HL7 prescribed field lengths

♦ Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Version 1.2, Released January 31, 2014

UCUM_CO DE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correction (not a code)	Previous UCUM_CODE (with Errors or Omissions)	Description of Change Made
k[AU]	kilo allergy unit	2/6/2014	RG	231	k[AU]	Removed because non-metric unit and discouraged for use because of ambiguous use in EIA testing
k[AU]/L	kilo allergy unit per liter	2/6/2014	RG	232	k[AU]/L	Removed because non-metric unit and discouraged for use because of ambiguous use in EIA testing
{AHF'U}	American Hospital Formulary unit	1/31/2014	RG	10	{AHF'U}	Changed apostrophe format from ' to '
[beth'U]	Bethesda unit	1/31/2014	RG	20	[beth'U]	Changed apostrophe format from ' to '
{Ehrlich'U}	Ehrlich unit	1/31/2014	RG	73	{Ehrlich'U}	Changed apostrophe format from ' to '
{Ehrlich'U}/ 100.g	Ehrlich unit per 100 gram	1/31/2014	RG	74	{Ehrlich'U}/100g	Changed apostrophe format from ' to ' and added period between 100 and g
{Ehrlich'U}/ (2.h)	Ehrlich unit per 2 hour	1/31/2014	RG	75	{Ehrlich'U}/(2.h)	Changed apostrophe format from ' to '
{Ehrlich'U}/ d	Ehrlich unit per day	1/31/2014	RG	76	{Ehrlich'U}/d	Changed apostrophe format from ' to '
g/kg/(8.h)	gram per kilogram per 8 hour	1/31/2014	RG	147	g/kg/8.h	Added parentheses around 8.h
g/kg	gram per kilogram	1/31/2014	RG	167	g/kg	deleted trailing space after closing bracket
{ImmuneCo mplex'U}	immune complex unit	1/31/2014	RG	198	{ImmuneComplex 'U}	Changed apostrophe format from ' to '
[ka'U]	King Armstrong unit	1/31/2014	RG	259	[ka'U]	Changed apostrophe format from ' to '
[knk'U]	Kunkel unit	1/31/2014	RG	261	[KNK'U]	Changed apostrophe format from ' to ' and deleted trailing space after closing bracket
[mclg'U]	Maclagan unit	1/31/2014	RG	281	[MCLG'U]	Changed apostrophe format from ' to '
mg/d/{1.73 _m2}	milligram per day per 1.73 square meter	1/31/2014	RG	422	mg/d/(1.73_m2)	Changed parentheses to curly brackets
mL(8.h)/kg	milliliter per 8 hour per kilogram	1/31/2014	RG	461	mL(8.h.kg)	Corrected syntax to match narrative definition.
[pptr]	part per trillion	1/31/2014	RG	646	[ppt]	Added missing r
[todd'U]	Todd unit	1/31/2014	RG	805	[Todd'U]	Changed apostrophe format from ' to '

• Red diamond symbol next to row number indicates correction since previous release version. See Revisions Log (Appendix).

Version 1.1, Released October 4, 2011

UCUM_CODE	Description of the Unit (using UCUM descriptions where they exist)	Last Updated	Corrected by (initials RG = Rebecca Goodwin)	Row # at time of correction (not a code)	Previous UCUM version (with Errors or Omissions)	Description of Change Made
[ka'U]	King Armstrong unit	10/4/2011	RG	259	[KA'U]	Changed to lowercase ka
[knk'U]	Kunkel unit	10/4/2011	RG	261	[KNK'U]	Changed to lowercase knk
[mclg'U]	Maclagan unit	10/4/2011	RG	281	[MCLG'U]	Changed to lowercase mclg
[todd'U]	Todd unit	10/4/2011	RG	805	[Todd'U]	Changed to lowercase t
g/(100.g)	gram per 100 gram	10/4/2011	RG	148	g/100g	Added period between 100 and g
g/(100.g)	gram per 100 gram	10/4/2011	RG	148	g/100g	Added period between 100 and g
ug/(100.g)	microgram per 100 gram	10/4/2011	RG	298	ug/100g	Added period between 100 and g
ug/(100.g)	microgram per 100 gram	10/4/2011	RG	298	ug/100g	Added period between 100 and g