The following is a list of the official FA for the USMLE Step 1 Errata. This list does not include suggestions/additions submitted and accepted for the text. For updates to previous editions, please visit the Step 1 Archives page.

The First Aid/USMLE Rx Team.

1. p. 68 Reportable diseases
    1) HIV and hepatitis C should be added to the list of reportable disease for all states.
2. p. 69 Core ethical principles
    1) "Benificence" should be changed to "beneficence."
3. p. 70 Written advance directive
    1) In addition to directing physicians to withhold or withdraw life-sustaining treatment, a living will can direct physicians as to what life-sustaining treatments a patient wants and does not want.
4. p. 86 DNA repair
    1) Beside "Mismatch repair," in the second column, it should read "mismatched nucleotides are removed" instead of "mismatched nucleotides are remove."
5. p. 88 Protein synthesis
    1) Beside "Initiation" it should read "40S ribosomal subunit," not "30S."
6. p. 96 Regulation by F2,6BP
    1) "Fructose bisphosphatase 2" is incorrectly spelled as "Fructose bisphophatase 2."
7. p. 96 Glycolytic enzyme deficiency
    1) Glucose phosphate (4%) should read glucose phosphate isomerase (4%).
8. p. 96 Regulation by F2,6BP
    1) The arrows between fructose-6-phosphate and fructose-2,6-bisphosphate should be reversed in direction to be correctly paired with the adjacent enzyme and its function.
9. p. 98 Electron transport chain and oxidative phosphorylation
    1) Uncoupling agents cause a (down arrow) in the proton gradient, thus causing maximal (up arrow) consumption of O2 in an unsuccessful attempt to produce ATP. The membrane becomes more permeable to protons.
10. p. 99 Pentose phosphate pathway (HMP shunt)
    1) The lines "All reactions of this pathway…used or produced." and "Sites: lactating …steroid synthesis." are printed in duplicate. The second (unindented) set should be deleted.
11. p. 101 Amino acids
    1) Under the mnemonic for essential amino acids, it should read "Arg and His are required…"
12. p. 101 Transport of ammonium by alanine and glutamine
    1) In the transamination reaction depicted in the second diagram, glutamine should be replaced with alpha-ketoglutarate.
13. p. 101 Transport of ammonium by alanine and glutamine

1) In the second diagram, “Apartate” should be replaced with “Aspartate.”

14. p. 102 Phenylketonuria
    1) Phenylalanine hydroxylase catalyzes the reaction of L-phenylalanine to L-tyrosine, in the process converting THB to DHP. The arrow should be drawn only in this direction.
15. p. 104 Purine salvage deficiencies
    1) In the figure, the arrows going from IMP to AMP are reversed. IMP to AMP is shown as one step; however, this is actually a two-step process.
16. p. 105 Glycogen
    1) Glycogen synthase is the enzyme that catalyzes the formation of alpha (1->4) glycosidic bonds in glycogen. The number 1 should therefore be adjacent to the arrow just below where it is currently. The enzyme that catalyzes glucose-1-phosphate into UDP glucose is UDP-glucose pyrophosphorylase.
17. p. 106 Glycogen storage diseases
    1) The enzyme deficient in von Gierke’s disease is glucose-6-phosphatase.
18. p. 107 Lysosomal storage diseases
    1) Beside the figure, in the last statement, “Neimann-Pick” should read “Niemann-Pick.”
19. p. 107 Lysosomal storage diseases
    1) At the bottom of the figure, “cerebroside” should be changed to “ceramide”.
20. p. 108 Essential fatty acids
    1) “Linoleic” is spelled incorrectly as “Linoeic.”
21. p. 111 Heme synthesis
    1) In the figure: delta-aminolevulinic acid does not negatively inhibit ALA synthetase. Instead, heme, the end product of this pathway, represses ALA synthetase activity. ALA synthetase is also known as ALA synthase.
22. p. 111 Porphyrias
    1) The enzyme lacking in acute intermittent porphyria is now referred to as porphobilinogen deaminase or hydroxymethylbilane synthase, rather than uroporphyrinogen synthase.
23. p. 111 Porphyrias
    1) Beside lead poisoning, the third column should read “Coproporphyrin,” not “Coproporhyrin.”
24. p. 112 Hemoglobin modifications
    1) Nitrites are administered in cyanide poisoning, not nitrates.
25. p. 117 Fragile X syndrome
    1) “Germlike” should be “Germline”.
26. p. 122 Embryologic derivatives
    1) Not all of the cranial nerves are derived from the neural crest; thus “cranial nerves” should be removed from this list.
27. p. 125 Fetal circulation
    1) The single umbilical vein should be shaded to represent “highly oxygenated blood” and the two umbilical arteries should be unshaded to represent “less oxygenated blood.”

28. p. 127 Ear development
    1) The right margin should indicate that the Eustachian tube is derived from the first branchial pouch, consistent with the entry below it.
29. p. 145 Bugs causing diarrhea
    1) O157:H7 should be paired with enterohemorrhagic E. coli, leaving "enteroinvasive E. coli" paired only with "Invades colonic mucosa."
    2) Shigella organisms have recently been found to be motile.
30. p. 146 Gardnerella vaginalis
    1) The vaginal discharge associated with Gardnerella vaginalis is gray, not green.
31. p. 149 Chlamydiae
    1) In the right margin, the word "peptidoglycan" should be removed, as Chlamydiae lack a peptidoglycan wall.
32. p. 150 Microbiology-Mycology
    1) The running header "Microbiology-Mycology" should begin on page 151, not on page 150.
33. p. 150 VDRL false positives
    1) The R in the mnemonic for VDRL should read "Rheumatic fever and rheumatoid arthritis," not "rheumatic arthritis".
34. p. 159 Paramyxoviruses
    1) RSV is a paramyxovirus with two serotypes.
35. p. 160 Herpesviruses
    1) The phrase "(see Color Image 11)" actually refers to herpes genitalis, listed beside HSV-2, not herpes labialis as listed beside HSV-1. The figure citation should thus be moved accordingly.
36. p. 163 HIV
    1) P24 is the viral capsid, not the nucleocapsid as written.
37. p. 163 HIV immunity
    1) CXCR1 should be replaced with CXCR4. Mutations in CXCR4 do not clearly affect progression to AIDS.
38. p. 170 Cephalosporins
    1) Cefpiramide is actually a third generation cephalosporin, not fourth generation.
39. p. 185 Differentiation of T cells
    1) In the text below the figure, IL-2 should be removed from the list of products for Th2 cells. IL-2 is mainly a product of Th0 and Th1 cells.
40. p. 191 Complement
    1) It would be more accurate to state, "Deficiency of C1 esterase inhibitor leads to hereditary angioedema (overactive bradykinin)." It has recently been shown that complement C1 esterase inhibitor inhibits kinin pathways as well as complement, and (up arrow) kinin activity is what causes angioedema.
41. p. 191 Complement
    1) In the diagram describing the classic pathway of complement activation, C4b2b should read C4b2a. C4b2a functions as the C3 convertase and as a part of the C5 convertase.

42. p. 191 Complement
    1) The second paragraph should read “Membrane attack complex,” not attache complex.”
43. p. 196 Transplant Rejection
    1) OKT3 is the brand name for muromonab-CD3.
44. p. 199 Free radical injury
    1) The third clause should read “produced through enzymes” instead of “produced though enzymes.”
45. p. 203 Tumor suppressor genes
    1) WT1 is located on chromosome 11p, not 11q.
46. p. 204 Paraneoplastic effects of tumors
    1) Lysed bone should be removed from the list of paraneoplastic causes of hypercalcemia because direct bone lysis is not a “paraneoplastic” phenomenon. p. 214 G-protein-linked 2nd messengers The arrow following Gi should be replaced with a symbol indicating inhibition as Gi inhibits adenyl cyclase.
47. p. 214 G-protein-linked 2nd messengers
    1) The arrow following Gi should be replaced with a symbol indicating inhibition as Gi inhibits adenyl cyclase.
48. p. 215 Autonomic drugs
    1) There are three small boxes in the lower figure that signify nothing and should be removed.
49. p. 216 Cholinoreceptor blockers
    1) Oxybutin should be replaced with Oxybutynin.
50. p. 223 P-450 interactions
    1) Quinidine is a (CYP2D6) P-450 inhibitor and an inducer of a different P-450 form (CYP3A4). Isoniazid is generally considered a P-450 inhibitor but has also been shown to activate the isozyme CYP2E1.
51. p. 224 Herbal agents
    1) St. John’s wort is an inducer of the P-450 system, not an inhibitor.
52. p. 231 Auscultation of the heart
    1) Pulmonic stenosis results in a systolic murmur, not a diastolic murmur as labeled under the pulmonic area on the diagram.
53. p. 231 Auscultation of the heart
    1) The pulmonic area and aortic area are located in the second intercostal space, i.e. one rib below their current depiction. Similarly, the tricuspid area and mitral area are one intercostal space lower than that which is depicted.
54. p. 234 Cardiac cycle
    1) The pressure-volume loop in the upper figure should read “Mitral,” not “Mitrial,” to denote when the mitral valve opens and closes. This typo appears twice.
55. p. 241 Congenital heart disease
    1) Children may squat to increase PVR, not venous return.
56. p. 244 Infarcts: red vs. pale

1) The liver should be listed as an example of red infarcts to be consistent with the figure. The brain should be removed from the list of pale infarcts, as both pale and red infarcts can occur in the brain depending on the location.

57. p. 249 Bacterial endocarditis
    1) The phrase “round white spots on retina surrounded by hemorrhage” describes Roth’s spots, not Osler’s nodes. Therefore, this parenthetical phrase should be moved up so that it follows “Roth’s spots.”
58. p. 251 Antihypertensive drugs
    1) Proteinuria is not an adverse effect of ACE inhibitors and should therefore be removed from the mnemonic. In fact, ACE inhibitors are often used to treat protein-losing nephropathies.
59. p. 253 Lipid-lowering agents
    1) Bile acid resins have been shown to slightly elevate HDL levels, so the em dash currently in that column should be changed to “Slightly [up arrow]”.
60. p. 254 Cardiac glycosides
    1) Next to Mechanism, “ionotropy” should be replaced with “inotropy.”
61. p. 263 Adrenal steroids
    1) In the Adrenal Steroids diagram it should read “21-hydroxylase deficiency” not “21Beta-hydroxylase deficiency”.
62. p. 263 Adrenal steroids
    1) The enzyme that converts pregnenolone to progesterone is 3Beta-hydroxysteroid dehydrogenase, not 33-hydroxysteroid dehydrogenase.
63. p. 265 Steroid/thyroid hormone mechanism
    1) In the paragraph below the figure, it should read “circulate bound” as opposed to “circulatebound.”
64. p. 271 Diabetic ketoacidosis
    1) Hyperthermia is not a sign of DKA and should thus be deleted from signs/symptoms
65. p. 273 Diabetes drugs
    1) In the row for ?-glucosidase inhibitors, the word “or” is missing after type 2 DM.
66. p. 279 Digestive tract anatomy
    1) The frequencies of basal electric rhythm should have the units “waves/min” instead of Hz.
67. p. 281 Femoral region
    1) The femoral artery label should be femoral nerve; the adjacent dark strip should be labeled femoral artery; and the right-most strip should be labeled femoral vein.
68. p. 281 Biliary structures
    1) “Common duct” should be labeled “Common bile duct”.
69. p. 281 Pectinate line
    1) “Venous drainage to” should be “Venous drainage to”.
70. p. 282 Inguinal canal
    1) The line connecting the label “Deep inguinal ring” to the deeper portion of the canal is missing.

71. p. 285 GI hormones
    1) In row 6 of the table, column 2, “gall bladder” should be replaced with “gallbladder.”
72. p. 286 Regulation of gastric acid secretion
    1) On the right side of the figure, all of the drugs listed are depicted as inhibitors of the particular receptor. However, misoprostol is a prostaglandin receptor agonist rather than an antagonist.
73. p. 287 Liver anatomy
    1) Zone III is most sensitive to toxic injury, not zone I.
74. p. 291 Diverticular disease
    1) Beside diverticulitis, it should read “May lead to perforation –> peritonitis…”
75. p. 293 Colorectal cancer
    1) Gardner’s syndrome and Turcot’s syndrome are actually subtypes of FAP.
76. p. 293 Colorectal cancer
    1) Peutz-Jeghers syndrome has been associated with an (up arrow) risk for colorectal cancer in addition to other malignancies.
77. p. 293 Colorectal cancer
    1) “Apple core” lesions for colorectal cancer are seen on barium enema, not barium swallow.
78. p. 295 Hemochromatosis
    1) The classic triad should include “diabetes mellitus” instead of “pancreatic fibrosis”.
79. p. 296 Reye’s syndrome
    1) The third phrase should read: “Associated with viral infection treated with salicylates.” Reye’s syndrome is not independently associated with salicylate use.
80. p. 300 Pro-kinetic agents
    1) For metoclopramide, instead of “Does not [up arrow] transit time through colon,” the text should read “Does not influence colon transit time.”
81. p. 303 Basophil
    1) Basophilic stippling is seen in red blood cells, not basophils.
82. p. 311 Hemorrhagic disorders
    1) Bernard-Soulier Syndrome results in mild thrombocytopenia secondary to “giant” platelet formations.
83. p. 320 Imatinib (Gleevac)
    1) The mechanism of Imatinib should read “Philadelphia chromosome bcr-abl…” not “brc-abl”.
84. p. 326 Smooth muscle contraction
    1) The right-most part of the diagram should be changed to: “Cross-bridge formation with contraction.”
    2) After the action of MLCP, “contraction” should be changed to “relaxation.” The dephosphorylation of the myosin light chain causes muscle relaxation.
85. p. 337 Immunosuppressive agents: sites of action

1) In addition to step 4, tacrolimus also acts at steps 2 and 3, in a mechanism similar to that of cyclosporine.

86. p. 340 High-Yield Clinical Vignettes
    1) The ninth vignette should read: "Patient cannot protrude tongue toward right side…"
87. p. 347 Circle of Willis
    1) Beside Anterior communicating artery, it should read "site," not "cite."
88. p. 350 Brachial plexus
    1) The figure labeled "claw hand" should be relabeled "Pope's blessing".
89. p. 357 Visual field defects
    1) In the diagram on the right, there should be a line going across the fibers adjacent to the number 6.
90. p. 363 Primary brain tumors
    1) In the supratentorial diagram, the pilocytic astrocytoma labeled "F" is incorrectly placed in the anterior fossa. It is most often found in the posterior fossa, near the region labeled for "B."
91. p. 370 Anesthetics–general principles
    1) Increased potency is equivalent to 1 divided by MAC. The division symbol is missing.
92. p. 381 Substance abuse
    1) The second phase should be amended as follows: "Symptoms have **never** met criteria for substance dependence. 1 or more of the following in 1 year."
93. p. 384 Treatment for selected psychiatric conditions
    1) "Alcohol withdraw" should read "Alcohol withdrawal".
94. p. 385 Antipsychotics (neuroleptics)
    1) "Gynecomastia" should be replaced with "galactorrhea" which is the result of hyperprolactinemia.
95. p. 387 Monoamine oxidase (MAO) inhibitors
    1) Beta-agonists and meperidine should be switched in the Toxicity entry.
96. p. 394 Nephron physiology
    1) In diagram E, the intercalated pump is shown as having a Na+/H+ exchanger at the luminal surface. This should be a K+/H+ exchanger.
97. p. 397 Acidosis/alkalosis
    1) At the first branch point, along with pH < 7.4 and pH > 7.4, the terms acidosis and alkalosis should be replaced with acidemia and alkalemia.
98. p. 400 Glomerular pathology
    1) SLE may be characterized by subendothelial deposits (as in the figure) and/or subepithelial deposits (as in the text) depending on the pathologic classification.
99. p. 401 Transitional cell carcinoma
    1) Schistosomiasis should be removed from the fourth line of the entry, and the final **S** in the mnemonic **Pee SACS** should be removed to read **Pee SAC**. Schistosomiasis is associated with an (up arrow) incidence of squamous cell carcinoma, not transitional cell carcinoma.
100. p. 410 Sperm development

1) Epididymis is spelled incorrectly in the mnemonic.

101. p. 412 Estrogen

1) Myometrial excitability should be removed from number 2. It is already included in number 9.

102. p. 420 Antiandrogens

1) Spironolactone does not act by inhibiting steroid synthesis; rather, it binds and blocks the androgen receptor, thereby preventing the binding of dihydrotestosterone.

103. p. 426 Lung relations

1) In the accompanying diagram, it should actually be the right bronchus that is shorter, wider and more vertical.

104. p. 428 Pulmonary circulation

1) In the second graph, the text should read “Partial pressure…”, not “Parial pressure.”

105. p. 431 Obstructive lung disease (COPD)

1) Up arrow FVC is incorrect. FVC is **reduced** because the airways close prematurely at high lung volumes, yielding (up arrow) RV and therefore **lower** FVC.

106. p. 431 Restrictive lung disease

1) VC should be replaced with FVC.

107. p. 432 Obstructive vs. restrictive lung disease

1) Above the graphs, the FEV1/FVC ratio for restrictive should read > 80%.

108. p. 435 Expectorants

1) “N-acetylcystine” is misspelled; it should read “N-acetylcysteine.”

109. p. 450 Most Frequent Cause of…

1) The most common cause of bacterial meningitis in adults is Streptococcus pneumoniae. The most common causes of bacterial meningitis in kids are Neisseria meningitidis and S. pneumoniae. The most common cause of bacterial meningitis in newborns is group B streptococcus.

110. p. 511 Abbreviations

1) snRMP should read snRNP.

111. Color Image 41

1) The correct text for the caption should read as follows: Key histologic features include “senile plaques” (not pictured); a coronal section showing atrophy, especially of the temporal lobes (A); and focal masses of interwoven neuronal processes around an amyloid core (neurofibrillary tangles, arrow) (B). The remnants of neuronal degeneration (C) are also associated with Alzheimer’s disease, the most common cause of dementia in older persons.

112. p.530 Index

1) The Swanz-Ganz catheter used to measure pulmonary capillary wedge pressure is on p. 241 and not on page 41 as is noted in the index.