

Revisions Made to Nursing Skills, Second Edition

Summary of Revisions

- Aligned with 2023 NCLEX Test Plans. Over [50 new NCLEX Next-Generation style questions](#) were added across all chapters to promote the development of clinical judgment according to the NCSBN Clinical Judgment Measurement Model.
- Chapter 2: updated definition of “nursing” based on American Nurses Association. (2021). Nursing: Scope and standards of practice (4th ed.)
- Chapter 21, IV Therapy, especially sections 23.2 and 23.3 (pages 910-917) were significantly revised with recently peer-reviewed content from Open RN *Nursing Advanced Skills*.
- Appendix was added with hyperlinks to related content in other Open RN OER textbooks corresponding to additional information on the NCLEX Test Plans not addressed in this course (ECG, Central Lines, etc)

Minor Verbiage Revisions for Clarity by Chapter/Page Number

- Hundreds of minor revisions were made for clarity based on suggestions received from WTCS Nursing faculty. Revisions are summarized below and page numbers refer to the print version of the first edition of Open RN Nursing Skills (and the free downloadable PDF of the first edition on the [Open RN website](#)).

~~Page 4: Example:~~ An example of documented subjective data obtained from a patient assessment is, “*The patient reports pain severity of 2 on a 1-10 scale.*”

**Change to 0-10 scale as later in the book (page 61) and several other places, pain is rated on 0-10 scale. Confusing not to have consistency.*

~~Page 7:~~ Assessment data is documented in the patient’s electronic medical record (EMR), an electronic version of the patient’s medical chart.

**Add documented “in paper chart or” in the.....”*

~~Page 8: Hand Hygiene~~

~~“Using~~ hand hygiene is a simple but effective way to prevent infection....”

**Remove word “using”*

~~Page 8: “• Hand hygiene should be performed at these times:~~

- Immediately before touching a patient
- Before performing an aseptic task (e.g., placing an indwelling device) or handling invasive medical devices
- Before moving from working on a soiled body site to a clean body site on the same patient
- After contact with blood, body fluids, or contaminated surfaces
- *Before donning gloves and* immediately after glove removal
- When leaving the area after touching a patient or their immediate environment”

**Add “Before donning gloves and immediately after glove removal”*

Page 11: “Performing hand hygiene at appropriate times during patient care and applying gloves when there is potential risk **for exposure** to body fluids are examples of using medical asepsis.”

*Add “for exposure” after “potential risk”

Page 11: “ Personal protective equipment (PPE) includes gowns, **eyewear**, **goggles**, face shields, **gloves** and masks.”

*Add *gloves and change eyewear to goggles*

Page 12: • “ Is there signage posted on the patient’s door that contact, droplet, **enhanced barrier** or airborne precautions are in place?”

*Add *Enhanced Barrier Precautions as possible signage.*

Page 12: “ Providing privacy means taking actions such as talking with the patient privately in a room with the door shut **or privacy curtain drawn around the bed.**”

*Add *or privacy curtain drawn around the bed*

Page 12: “ A common framework used for introductions during patient care is AIDET, a mnemonic for Acknowledge, Introduce, Duration, Explanation, and Thank You.”

*Change to A common framework used **to communicate with patients** is AIDET, a mnemonic for Acknowledge...

AIDET is not used only for introductions as the explanation lasts throughout the encounter and the thank you is at the end.

Page 13: “Before performing assessments, obtaining vital signs, or providing care, patients must be properly identified using two identifiers.”

*Change to “Use at least two patient identifiers before performing assessments, obtaining vital signs or providing care.”

Page 13: First identifier:

- Ask the patient to state their name and date of birth. If they have an armband, compare the information they are stating to the information on the armband and verify they match. See Figure 1.5 11 for an image of an armband.

- If the patient doesn’t have an armband confirm the information they are stating to information provided in the chart.

- If the patient is unable to state their name and date of birth, scan their armband or ask another staff member or family member to identify them.

Confirm first identifier with a different second identifier:

- Scan the wristband.
- Compare the name and date of birth to the patient’s chart.
- Ask staff to verify the patient in a long-term care setting.
- Compare the picture on the medication administration record (MAR) to the patient.
- If present, ask a family member to confirm the patient’s name.

**This seems confusing the way it is written. The first identifier is the patient’s name and the second identifier is the patients birthdate. This is making the first identifier the name and date of birth and then the second is comparing that to something else.*

The Joint Commission requires that two identifiers—such as a patient’s full name, date of birth and/or medical identification (ID) number—be used for every patient encounter. Use of a room number would NOT be considered an example of a unique patient identifier.

Additional examples of identifiers may include, but not limited to:

- An assigned identification number (e.g. medical record number, etc).
- Telephone number or another person-specific identifier
- Electronic identification technology coding, such as bar coding or RFID, that includes two or more person-specific identifiers

Page 15: “It is important to adapt your interactions with patients in accordance **with** their **developmental stage**.”

*Add **“with”** after *accordance*.....

Page 18: “The “old old” may remain productive, active, and independent, but risks of **the** heart disease, lung disease, cancer, and cerebral vascular disease (i.e., strokes) increase substantially for this age group.”

*Remove the word "the"

Page 20- "Common methods of temperature measurement include oral, tympanic, axillary, and rectal routes."

*Add "temporal and no touch method of obtaining a temperature with an infrared thermometer"

Page 20: "Body temperature is typically measured and documented in health care agencies in degrees Celsius (°C). 3

*Change this to Fahrenheit. Ryerson University is in Canada where they use Celsius more than the US does.

Thermometers show body temperature in either degrees Fahrenheit (°F) or degrees Celsius (°C). In the United States, temperatures are often measured in degrees Fahrenheit. (From Kaiser Permanente)

Page 21: "The tympanic temperature is typically 0.3 – 0.6°C or 0.5 – 1°F higher than an oral temperature."

*Add 0.5-1° F

Page 21: "The tympanic method should not be used if the patient has a suspected ear infection. 10"

*Add "Cerumen may reduce the accuracy of tympanic readings."

Page 23: "However, the axillary temperature can be as much as 1°C lower than the oral temperature. 13"

*Add "An axillary (axillary) temperature is usually 0.3° C (0.5° F) to 0.6° C (1° F) lower than an oral temperature." This covers the Fahrenheit scale also.

Page 24: The image pictured in the book looks like an oral thermometer as the button on the probe cover is blue which is what oral thermometers are color coded and the top of thermometer also looks blue. In the online version, the top piece of the thermometer is red but usually it is the probe that is color coded red. Picture is confusing.

Page 24: "The rectal temperature is usually 1°C higher than oral temperature."

*Change to "A rectal temperature is 0.5°F (0.3°C) to 1°F (0.6°C) higher than an oral temperature."

This again covers the Fahrenheit scale which is more familiar and used more often.

Page 24: "...gently insert the probe 2–3 cm inside the anus or less, depending on the patient's size. 18"

*Add "1/2 inch (for babies less than 6 months old) to 1 inch into the anus. Having both cm and inches will help students understand distance better.

Page 25:

Table 1.3 Normal Temperature Ranges 19

Method	Normal Range	Add normal ranges for Fahrenheit into the table.
Oral	35.8 – 37.3°C	96.4-99.1°F
Axillary	34.8 – 36.3°C	94.6-97.3°F
Tympanic	36.1 – 37.9°C	97-100.2°F
Rectal	36.8 – 38.2°C	98.2-100.8°F

Page 26- "The normal adult pulse rate (heart rate) at rest is 60–100 beats per minute with different ranges according to age"

*Add to clarify difference between heart rate and pulse—"The pulse rate is a measurement of the heart rate or the number of times the heart beats per minute. Pulse can be measured wherever a pulse can be palpated whereas a heart rate is auscultated. The pulse rate may differ from the heart rate if the force of the heart contraction is not strong enough to generate a pulse."

Page 27: "It is best to document complete the assessment when a patient is resting and comfortable, but if this is not feasible, document the circumstances surrounding the assessment and reassess as needed. 21

*Change "document" to complete Discussing factors that could change the rate of pulse and encouraging assessments to be completed when patient is resting.

Page 30- "Locate the carotid artery medial to the sternomastoid muscle, between the muscle and the trachea, in the middle third of the neck."

*Seems confusing—maybe change to "Place your index and middle fingers on your neck to the side of your trachea to palpate the pulse from the carotid artery.

Page 33: “The target range of SpO2 for an adult is 94-98%. For patients with chronic respiratory conditions, such as chronic obstructive pulmonary disease (COPD), the target range for SpO2 is often lower at 88% to 92%.”

“The target range of SpO2 for an adult is 94-98%. For patients with chronic respiratory conditions, such as chronic obstructive pulmonary disease (COPD), the target range for SpO2 is often lower at 88% to 92%.”

**This sentence is in the first paragraph at the top of the page and then repeated below the picture. Remove these 2 sentences at the bottom of the page and change the target range from 94-100%*

Page 41: “Body Mass Index (BMI) is a standardized reference range that is used to analyze a patient’s weight status and provides a representation of body fat.”

**Change to “BMI is a measurement of body size based on your height and weight.” “A high BMI can indicate high body fatness. BMI screens for weight categories that may lead to health problems, but it does not diagnose the body fatness of health of an individual.” (CDC)*

Page 41: “BMI can also be calculated using the formula of BMI = kg/m2 (weight in kilograms divided by height in meters squared).”

**Add to this formula BMI = weight (lb.)/height (in)² x 703
BMI = weight (kg)/ height (m)²*

Page 45: Sample Documentation of Expected Findings

Mrs. Smith is a 65-year-old patient who appears her stated age. She is calm, cooperative, alert, and oriented x 3. She is well-groomed and her clothing is clean and appropriate for the weather. Her speech is clear and understandable, and she follows instructions appropriately. Mrs. Smith moves all extremities equally bilaterally with good posture. Her gait is smooth and she maintains balance without assistance. Her skin is warm and her mucous membranes are moist. She is 5’4” and she weighs 143 with a BMI of 24 in the normal weight category. Her vital signs were BP 120/70, pulse 74 and regular, respiratory rate 14, temperature 36.8 Celsius, and pulse oximetry was 98% on room air.

**Removed unnecessary words and made all present tense. “Mrs. Smith is a 65-year-old patient who appears her stated age. Calm, cooperative, alert and oriented x 3. Well groomed with clean clothing and appropriate for weather. Speech is clear, understandable and follows instructions appropriately. Moves all extremities equally bilaterally with good posture. Gait is smooth and maintains balance without assistance. Skin warm and mucous membranes moist. 5’4” and weighs 143 pounds with BMI of 24 in normal weight category. Vital signs: BP 120/70, pulse 74 and regular, respiratory rate 14, temperature 36.8 Celsius, SpO2 98% on room air.”*

Sample Documentation of Unexpected Findings

“Mrs. Smith is a 65-year-old patient who appears older than her stated age. She appears slightly agitated during the interview. She is oriented to person only and denies pain. She is wearing a heavy winter coat on a warm summer day and has an unclean body odor. She is slow to respond to questions and does not follow commands. She seems to neglect the use of her right arm. Her gait is shuffled with stooped posture but has no assistive devices. She is 5’4” and weighs 102 pounds with a BMI of 17.5 in the underweight category. Her vital signs were 186/55, pulse 102 and irregular, respiratory rate 22, temperature 38.1 Celsius, and pulse oximetry was 88%.”

**Removed unnecessary words and made all present tense. (not present mixed with past) “Mrs. Smith is a 65-year-old patient with older appearance than stated age. Slightly agitated during the interview. Oriented to person only and denies pain. Wearing a heavy winter coat on a warm summer day and unclean body odor. Slow to respond to questions and does not follow commands. Neglect noted of right arm. Gait shuffling with stooped posture with no assistive device. 5’4” and weighs 102 pounds with BMI of 17.5 in the underweight category. Vital signs: BP 186/55, pulse 102 and irregular, respiratory rate 22, temperature 38.1 Celsius and SpO2 88% on room air.”*

Page 46: “4. Ask the patient their legal name and date of birth for the first identifier. Verify information provided in their chart or wristband, if present. Use one of the following for the second identifier: ◦ Scan wristband ◦ Compare name/DOB to MAR ◦ Ask staff to verify patient (in settings where wristbands are not worn) ◦ Compare picture on MAR to patient”

**This is confusing as the patient name is actually the first identifier and the second identifier can be the date of birth or as listed below.*

To prevent instances of misidentification and near-misses, The Joint Commission requires that two identifiers—such as a patient’s full name, date of birth and/or medical identification (ID) number—be used for every patient encounter. Additional examples of identifiers may include, but not limited to:

- An assigned identification number (e.g. medical record number, etc).
- Telephone number or another person-specific identifier
- Electronic identification technology coding, such as bar coding or RFID, that includes two or more person-specific identifiers

This was all noted above also

Page 48: “Personal Protective Equipment (PPE): Includes gowns, eyewear, face shields, and masks, along with environmental controls, to prevent the transmission of infection for patients who are diagnosed or suspected of having an infectious disease.”

**Add gloves to PPE definition and maybe change “eyewear” to goggles*

Page 54: “The “History and Physical” documentation in a patient’s electronic medical record is completed by a health care provider on admission to a health care agency. It is very similar to the health history obtained by a nurse and is helpful to read when caring for a patient for an overview of their treatment plan.”

**Add “paper medical record” after “electronic medical record”*

Page 66: “Activity-Exercise: Exercise and activity”

**Keep definitions in same order as in the categories. ie. “Activity-Exercise: Activity and exercise”*

“Cognitive-Perceptual: Perception and cognition” *Change to “Cognitive-Perceptual: Cognition and perception”*

“Sexuality-Reproductive: Reproduction and sexuality” *Change to “Sexuality-Reproductive: Sexuality and reproduction”*

Page 67: “Assess urine concentration, frequency, and odor, especially if concerned about urinary tract infection, incontinence, or infection.”

**Infection is mentioned twice—urinary tract infection,, or infection” Change to “.....concerned about urinary tract infection or incontinence.”*

Page 71: “LGBT is an acronym standing for the lesbian, gay, bisexual, and transgender population.”

**Add “Q” to acronym and remove “the” before lesbian. “LGBTQ is an acronym standing for lesbian, gay, bisexual, transgender and queer population”*

Page 85: “LGBT: An acronym standing for lesbian, gay, bisexual, and transgender and is an umbrella term that generally refers to a group of people who are diverse with regard to their gender identity and sexual orientation. There are expanded versions of this acronym. 5”

**Add “Q” to the definition “LGBTQ: An acronym.....bisexual, transgender and queer and is”*

Page 93: “Orthostatic hypotension is a drop in blood pressure that occurs when moving from a lying down (supine) or seated position to a standing (upright) position. When measuring blood pressure, orthostatic hypotension is defined as a decrease in blood pressure by at least 20 mmHg systolic or 10 mmHg diastolic within three minutes of standing.”

**Add postural hypotension in parenthesis after orthostatic hypotension as it can be referred to as either one.*

Also add that pulse should be checked as part of postural vital signs as a positive finding is also if the pulse rate increases by 30 beats/minute or more while the patient stands (or sits if the patient can't stand).³

Also clarify procedure for obtaining orthostatic vital signs.

- *Have the patient stand upright for 1 minute if able*
- *Obtain the blood pressure measurement while the patient stands using the same arm and the same equipment as the previous measurement*
- *Obtain the radial pulse again.*
- *Repeat the blood pressure and radial pulse measurements again at 3 minutes. Waiting several minutes before repeating the measurements allows time for the autonomic nervous system to compensate for blood volume shifts after position change in the patient without orthostatic hypotension. If the patient has symptoms that suggest orthostatic hypotension but doesn't have documented orthostatic hypotension, repeat blood pressure measurement. Some patients may not demonstrate significant falls in blood pressure until they stand beyond 3 minutes.*

Procedure taken from Lippincott procedures

Page 93: Table 4.2 Blood Pressure Categories

Blood Pressure Category	Systolic mm Hg (upper #)	Diastolic mm Hg (lower #)
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Normal	< 120	< 80
Stage 1	130-139	80-89
Stage 2	At least 140	At least 90
Hypertensive Crisis	> 180	> 120

~~*Add "Elevated" Category between Normal and Stage 1 which is on the American College of Cardiology website that is referenced in the skills book.~~

Blood Pressure Category	Systolic mm Hg (upper #)	Diastolic mm Hg (lower #)
Normal	< 120 and	< 80
Elevated	120-129 and	< 80
Stage 1	130-139 or	80-89
Stage 2	≥ 140 or	≥ 90
Hypertensive Crisis	> 180 and/or	> 120

Individuals are classified according to their highest systolic or diastolic BP category.

~~Page 101:~~ Sample Documentation of Expected Findings "Blood pressure **was** 120/80 mmHg on the left arm with the patient in a seated position using a manual cuff."

**Change to "Blood pressure 120/80 on the left arm with the patient in a seated position using a manual cuff". (Remove past tense)*

Sample Documentation of Unexpected Findings "Blood pressure reading was collected with routine vital signs and noted to be 160/95 in the right arm. Blood pressure was retaken in the left arm after the patient rested for 5 minutes and was 154/93. Patient reports no history of hypertension and no current blood pressure medications. Patient denies dizziness, headache, visual changes, and lightheadedness. Dr. Smith was notified, and an order for furosemide 20 mg was received."

**Change to "Blood pressure reading on right arm 160/95. Blood pressure reading left arm 154/93 after patient rested 5 minutes. Reports no history of hypertension and currently not taking any blood pressure medications. Denies dizziness, headache, visual changes, or lightheadedness. Dr. Smith notified of all of above and order for furosemide 20 mg PO now received."*

~~Page 101:-~~ "8. Inflate the cuff rapidly (while palpating the radial or brachial pulse) to the level at which pulsations are no longer felt and inflate the cuff 30 mmHg above the palpated pressure or the patient's usual blood pressure. Note the level and rapidly deflate the cuff; wait 30 seconds."

**Change to eliminate "and inflate the cuff 30 mm Hg above the palpate pressure." No need to do this when obtaining palpated pressure. Can stop inflating cuff and deflate when no longer able to palpate pulse. Will add 30 mm Hg when inflating cuff to actually check blood pressure.*

"Inflate the cuff rapidly (while palpating the radial or brachial pulse) to the level at which pulsations are no longer felt. Note the level and rapidly deflate the cuff; wait 30 seconds."

~~Page 101:-~~ "12. Deflate the cuff completely and remove the patient's arm from the cuff."

**Change to "12. Deflate the cuff completely and remove cuff from the patient's arm." Hard to remove the arm from the cuff—would remove cuff from the arm.*

~~Page 108:-~~ "Coronavirus disease (COVID-19), C. difficile (C-diff),"

**Write out "Clostridium difficile (C-diff)" instead of C. difficile*

~~Page 108:-~~ "There are three categories of transmission-based precautions: contact precautions, droplet precautions, and airborne precautions".

**Add in “Enhanced Barrier Precautions are an infection control intervention designed to reduce transmission of multidrug-resistant organisms (MDRO’S) in nursing homes. Enhanced Barrier Precautions involve gown and glove use during high-contact resident care activities for residents known to be colonized or infected with a MDRO as well as those at increased risk of MDRO acquisition (e.g., residents with wounds or indwelling medical devices).” Taken from CDC website.*

Page 109: “Known or suspected infection with pathogens transmitted by small respiratory droplets, such as measles”

** Add in tuberculosis and disseminated herpes zoster in addition to measles for airborne precautions.*

Page 111: “The five moments of hand hygiene are as follows:

- Immediately before touching a patient
- Before performing an aseptic task or handling invasive devices
- Before moving from a soiled body site to a clean body site on a patient
- After touching a patient or their immediate environment
- After contact with blood, body fluids, or contaminated surfaces (with or without glove use)
- Immediately after glove removal”

**Confusing as the diagram shows five moments of hand hygiene but the bullet points above have 6 items. It states to wash hands after glove removal—should hands be washed prior to applying gloves?*

Page 124 and 127: *Writing below pictures in diagrams are hard to read as is very small especially “when removing a facemask” Can these be made larger?*

Page 128: “• Perform hand hygiene using hand sanitizer.”

**Add to the “or wash hands with soap and water”*

Page 121 and 129: Both these pages have the exact same video referenced “PPE DON & DOFF TUTORIAL”

Page 145: “3. Apply enough product into the palm of one hand and enough to cover your hands thoroughly, per product directions.”

**Confusing sentence structure—Change to “Apply enough product to cover your hands thoroughly into the palm of one hand per product directions”*

Page 145: “4. Rub your hands together, covering all surfaces of your hands and fingers with antiseptic until the alcohol is dry (a minimum of 30 seconds).”

**Page 145 state to rub hands together a minimum of 30 seconds and page 112 states 20 seconds. CDC website states “at least 20 seconds” for both hand sanitizer and soap and water*

Page 146: “2. Ensure that all supplies are available before check-off begins: isolation cart, gowns, gloves, mask, eye/face shields, shoes, and head cover.”

** Change “eye/face shields” to goggles/face shield
“shoes”---should this be “shoe covers”?
“assembleshoes, and head cover but then steps never address when you would apply or remove these items of protective gear*

Page 146: “◦ 1st (GOWN): Gown should cover all outer garments.”

**Gown most likely will not cover “all” outer garments. Gowns will not cover entire length of scrub pants
Remove the word all*

Page 151: “Five moments of hand hygiene: Hand hygiene should be performed during the five moments of patient care: immediately before touching a patient; before performing an aseptic task or handling invasive devices; before moving from a soiled body site to a clean body site on a patient; after touching a patient or their immediate environment; after contact with blood, body fluids, or contaminated surfaces (with or without glove use); and immediately after glove removal.”

**This is the same as mentioned about page 111—noted to be five moments of hand hygiene but there are 6 points listed and should hand hygiene be performed before putting gloves on as well as after removal?*

Page 157: “Syringes are used when administering medications through the parenteral route (i.e., in.....”

* Add some more information to this paragraph to explain the different tips available on syringes. For safety reasons, oral syringes should be used when administering oral liquid medications, as syringe tip does not fit IV site injection ports. For parenteral use, both luer lock or slip tip syringes are available. Slip tip should be mentioned as several of the foley catheter kits are packaged with a slip tip syringe to inflate the balloon and also the port to obtain a urine sample requires a slip tip syringe. Maybe show pictures identifying the differences between the oral syringe, slip tip and luer lock syringes?

Page 161: Measurement and

Abbreviation	Common Conversions
drop (gtt)	15 -20 gtt = 1 mL
teaspoon (tsp)	1 tsp = 5 mL
tablespoon (Tbs)	1 Tbs = 3 tsp = 15 mL

* Change to drop (gtt) 10, 12, 15, or 20 gtt = 1 mL (depending upon manufacturer of tubing)
 Add in mcgtts 60 mcgtts = 1 mL
 Add "Tbsp or Tbs" for abbreviation for tablespoon

Page 162: Table 5.4c Common Metric Conversions in Health Care

Metric Measurement	Common Conversions
1 kilogram (kg)	1 kg = 2.2 pounds = 1000 grams This is correct but in the book it has 1000 mg
1 centimeter (cm)	1 in = 2.54 cm = 25.4 mm
37 degrees Celsius	97.8 degrees F This is incorrect should be 98.6°F
1 liter	1000 mL = 1000 cc
1 gram	1000 mg
1 mg	1000 mcg

*? Add in the easy memorization table of

1 teaspoon	5 mL
1 tablespoon	15 mL
1 ounce	30 mL

Page 163: The second YouTube element is labelled as "Metric Conversions?" but the picture in the book is labelled as "Hand Hygiene Tutorial"

Page 164: "• Units (U): Units are used in insulin and heparin dosages"

*Add "Pitocin and penicillin" as drugs that are supplied in units.

Page 165: "Follow agency policy according to rounding."

*Change to "Follow agency policy for rounding."

Page 165: "For pediatric patients, it is important to be as precise as possible to avoid medication errors. Oral liquid medications less than 1 mL should be rounded to the hundredth. For example, 0.276 rounds to 0.28, and 0.243 rounds to 0.24."

* For measuring adult medications, it specified how to round based upon whether you are administering greater than 1 mL of medication or less than 1 mL of medication.

For pediatrics, it states how to round if administering less than 1 mL of medication but not how to round if administering more than 1 mL

Page 167: "Practice Problem #1: Ounces to Millileters"

* Change spelling of "Millileters" to "Milliliters"

Page 168: "Practice Problem #2: Ounces to Millileters"

*Change spelling of "Millileters" to "Milliliters"

Page 170: For "Video Review of Calculating Intake and Output?" , the book has pictured "Hand Hygiene Tutorial" with a picture of handwashing

Page 176:

3. " mL = 1 mL x = 12.5 mg" Should not be " = " signs here

Page 180: "Name: Liam Vang, DOB: 04/04/19xx, Age 8, Allergies: NKDA, Weight: 60 kg

* If patient is 8 years old, could not possibly be born in 19xx, Seems like this makes material seem outdated
Change birthdate to 04/04/XXXX, Age 8

Page 182: "6. Because the patient is a child, round to hundredth for the final answer: 2.22 mL"

* On page 165, the only rounding rule for pediatric patients is if the dosage administered is less than 1 mL; nothing is stated for dosages greater than 1 mL. In the practice problems that are on the same page (165), answers are rounded to the tenth place for both pediatric and adult patients if dosage is greater than 1 mL but in this sample problem, it states to round to the hundredth place "because the patient is a child" but the dosage is not less than 1 mL.

Page 184: "Name: Aidan Smith, DOB: 5/09/20xx, Age 4, Allergies: NKDA, Weight: 22 pounds"

* Change DOB to 5/09/XXXX in order to make the book stay current easier

Page 186: « 8. mL = $\frac{5 \text{ mL} \times 15 \times 1 \times 22}{160 \times 1 \times 2.2 \times 1} = \frac{1650 \text{ mL}}{352} = \frac{1650 \text{ mL}}{352} = 4.6875 \text{ mL} \gg$

*Confusing as the labels are all missing in this step—problem isn't going to be rewritten from step to step so labels should still be present but crossed off in this step.

$$\text{"mL} = \frac{5 \text{ mL}}{160 \text{ mg}} \times \frac{15 \text{ mg}}{1 \text{ kg}} \times \frac{1 \text{ kg}}{2.2 \text{ lb}} \times \frac{22 \text{ lb}}{1} = \frac{1650 \text{ mL}}{352} = 4.6875 \text{ mL"}$$

Page 190: "Figure 5.13 Macro drip and Microdrip IV Tubing label under image

*Switch order of macrodrip and microdrip around to match the order of the tubings in the picture.

Page 190: "Macro drip tubing includes tubing with drop factors of 10, 15, or 20 drops per milliliter and is typically used to deliver general IV solutions to adults."

*Change to "Macro drip tubing includes tubing with drop factors of 10, 12, 15, or 20 drops per milliliter and is typically used to deliver general IV solutions to adults".

(A standard macro drip set delivers 10, 12, 15, or 20 drops/mL) from Lippincott
Milliliter is also spelled wrong

Page 191: "In the sample problems below, you will be calculating the number of drops needed per minute to achieve the quantity of fluid to be used per hour in the provider order."

*Change to "infused"

Page 192: "Name: Elaina Dimas, DOB: 12/09/19xx, Age 6, Allergies: NKDA, Weight: 15 kg"

*Change DOB: to "12/09/20XX" or "12/09/XXXX" as child cannot be born in 19XX and be 6. Dates material.

Page 195: "Name: Amber Gomez, DOB: 08/26/19xx, Age 26, Allergies: NKDA, Weight: 50 kg"

*Consider changing this DOB to "08/26/XXXX" so text isn't outdated in 3 years

Page 196: "gtts $\frac{10 \text{ gtts}}{1 \text{ mL}} \times \frac{250 \text{ mL}}{2 \text{ hour}} \times \frac{1 \text{ hour}}{60 \text{ min}} = \frac{10 \text{ gtts} \times 250 \times 1}{1 \times 2 \times 60 \text{ min}} = 20.83 \text{ gtts/min}$ "

*This should be an "equal" sign here instead of multiply

Page 198: "Figure 5.18 IV Infusion Pump"

* This label of "IV Infusion Pump" is actually under the image of an "epidural pump".
Image should be changed to an actual IV infusion pump

Page 199: "Name: Amber Gomez, DOB: 08/26/19xx, Age 26, Allergies: NKDA, Weight: 50 kg"
"Name: Ashley Hanson, DOB: 09/29/19xx, Age 21, Allergies: NKDA"

**Would change the “DOB: 08/26/XXXX and 09/29/XXXX so text isn’t outdated in 3 years*

Page 200: “ $\frac{100 \text{ mL}}{30 \text{ min.}} = \frac{60 \text{ minutes}}{1 \text{ hour}} = \frac{100 \text{ mL} \times 60}{30 \times 1 \text{ hour}} = \frac{6000 \text{ mL}}{30 \text{ hour}} = 200 \text{ mL/hr}$ »

**The highlighted « equal » sign should be a multiplication sign; I would remove the second highlighted numbers as in other mathematical equations, obtaining the answer is not a two step process. Confusing not to set up equations consistently.*

Page 202: “Name: Amanda Parks, DOB: 09/29/19xx, Allergies: NKDA, Weight: 70 kg”

** Again, change the DOB to “09/29/XXXX” to keep textbook more updated*

Page 205: “Name: Ideen Hanson, DOB: 09/29/19xx, Allergies: NKDA, Weight: 180 lbs”

** Change to DOB: “09/29/XXXX”*

Page 205: . “Now multiplying the micrograms (mcg) ordered by weight in kg to determine the amount of ...”

** Change the word “multiplying” to “multiply”*

Page 206: Steps #3, 4, 5, and 6, the equation starts with “mL = ”

** Should be “ $\frac{\text{mL}}{\text{Hour}}$ = ” for the start of each of these equations.*

Page 206: In Step 7, after “ $\frac{\text{mL}}{\text{Hr}} \times$ ” there should be an equal sign instead of a multiplication sign

~~Page 171 step 2, 172 step 3, 176 step 2 and 3, 182 step 4, 185 step 3, 193 step 2, 194 step 3 and 4, 200 step 3, 203 step 3, 206 step 3, 5, 6~~

**Change the word “plug” to something else? Maybe “put” or “place”*

Page 221: “A traditional mnemonic for memorizing the names of the cranial nerves is “On Old Olympus Towering Tops A Finn And German Viewed Some Hops,” in which the initial letter of each word corresponds to the initial letter in the name of each nerve.”

**Change to or add to something easier “Oh Once One Takes The Anatomy Final Very Good Vacations Are Heavenly.”*

Page 221: “• The olfactory nerve is responsible for the sense of smell.

- The optic nerve is responsible for the sense of vision.
- The oculomotor nerve regulates eye movements by controlling four of the extraocular muscles, lifting the upper eyelid when the eyes point up and for constricting the pupils.
- The trochlear nerve and the abducens nerve are both responsible for eye movement, but do so by controlling different extraocular muscles.
- The trigeminal nerve regulates skin sensations of the face and controls the muscles used for chewing.
- The facial nerve is responsible for the muscles involved in facial expressions, as well as part of the sense of taste and the production of saliva.
- The accessory nerve controls movements of the neck.
- The vestibulocochlear nerve manages hearing and balance.
- The glossopharyngeal nerve regulates the controlling muscles in the oral cavity and upper throat, as well as part of the sense of taste and the production of saliva.
- The vagus nerve is responsible for contributing to homeostatic control of the organs of the thoracic and upper abdominal cavities.
- The spinal accessory nerve controls the muscles of the neck, along with cervical spinal nerves.
- The hypoglossal nerve manages the muscles of the lower throat and tongue. 19 “

** Cranial nerve XI is the spinal accessory nerve which is listed twice above—once as the accessory nerve and once as the spinal accessory nerve but are the same thing.*

Cranial nerve IV and VII are listed together so should only be 11 explanations unless separate the trochlear and abducens

Might be helpful to put the numbers before each of these nerves also

Example I. The olfactory nerve is responsible for the sense of smell.

Do students need to know whether a nerve is motor, sensory or both? The mnemonic “Some Say Money Matters But My Brother Says Big Brains Matter Most” identifies the function of the 12 cranial nerves.

Page 229: “To assess a patient’s orientation status, ask, “Can you tell me your name? “

*Change to “What is your name?” as truthfully the “Can you tell me your name” is a yes or no question

Page 229-230: “Scores are added from these three categories to assign a patient’s level of responsiveness. Scores ranging from 15 or higher are classified as the best response, less than 8 is classified as comatose, and 3 or less is classified as unresponsive”

****Actually shown how the score is added up and what category that puts a patient into makes more sense to me or if the Figure 6.9 image could be on the same page as the explanation of it.**

TABLE 38-2		
Glasgow Coma Scale		
BEHAVIOR	RESPONSE	SCORE
Eye opening response	Spontaneously	4
	To speech	3
	To pain	2
	No response	1
Best verbal response	Oriented to time, place, and person	5
	Confused	4
	Inappropriate words	3
	Incomprehensible sounds	2
	No response	1
Best motor response	Obeys commands	6
	Moves to localized pain	5
	Flexion withdrawal from pain	4
	Abnormal flexion (decorticate)	3
	Abnormal extension (decerebrate)	2
	No response	1
Total score:		
	Best response	15
	Comatose client	8 or less
	Totally unresponsive	3

https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.firstaidforfree.com%2Fglasgow-coma-scale-gcs-first-aiders%2F&psig=AOvVaw1QQ8tktYe_IGJn3ilwjmU&ust=1682457590409000&source=images&cd=vfe&ved=0CA8QjhxqFwoTCKCr_sq6w_4CFQAAAAAdAAAAABAD

Page 236: “An unexpected finding is involuntary shaking of the eye as it moves, referred to as nystagmus.”

*Clarify nystagmus definition—Nystagmus is an involuntary eye movement which may cause the eye to rapidly move from side to side, up and down, or in a circle, and may slightly blur vision.

Page 237: “An unexpected finding is when one pupil is larger than the other or one pupil responds more slowly than the other to light, which is often referred to as a “sluggish response.”

*Add “The pupil where you shine the light should constrict (direct reaction) and so should the other one (consensual reaction).”

Page 270: “Plantar Reflex Add “or Babinski Reflex”

The plantar reflex assesses lumbar spine L5 and sacral spine S1. Ask the patient to extend their lower leg, and then stabilize their foot in the air with your hand. Stroke the lateral surface of the sole of the foot toward the toes. Many patients are ticklish and withdraw their foot, so it is sufficient to elicit the reflex by using your thumb to stroke lightly from the sole of the foot toward the toes. If there is no response, use a blunt object such as a key or pen. The expected reflex is flexion (i.e., bending) of the great toe. An abnormal response is toe extension (i.e., straightening), also known as the Babinski reflex, which is considered abnormal after 2 years of age. See Figures 6.40 – 6.43 5 , 6 , 7 , 8 for images of assessing the plantar reflex.”

*Parts seem confusing: Possibly change wording of technique and explanation of results to as below—“Slide the object up along the outside edge of the foot starting at heel and continue moving up until you hit the meaty area below the toes, right where the toe joints start sweep the object across the foot underneath the toe joints.

Possibly change expected and unexpected results in what age groups.

In a child younger than 2 years old, the big toe should bend up and backward toward the **top of your foot** while the other four toes fan out. This response is normal and doesn't indicate any problems or abnormalities.

In a child older than 2 years old or in a mature adult, the Babinski sign should be absent. All five toes should flex, or curl downward, as if they're trying to grab something. If this test is conducted on a child older than 2 or an adult and the toes respond like those of a child under two years old, this can indicate an underlying neurological issue.

Page 285:—"a. Use **loud a** tone when speaking to the client"

*Change to "**Use a loud tone** when speaking"

Page 286:—"Babinski response: A reflex demonstrated by the fanning of toes with the great toe pointed toward the **back (dorsum) of** the foot. In adults, the Babinski response is considered abnormal and an indication of motor neuron disease."

*Definition confusing? Change to "Babinski response: A reflex demonstrated as fanning of 4 toes with great toe bending towards top of foot when object slid along sole of foot. Normal in children under 2. Older than 2 through adulthood, all five toes should curl downward."

Page 286:—"Bruit: A swishing sound heard upon auscultation."

*Definition vague—Change to "Bruit—abnormal whooshing sound heard upon auscultation which is generated by turbulent flow of blood in an artery due to either an area of partial obstruction or a localized high rate of blood flow through an unobstructed artery."

Page 292:—"The brain case surrounds and protects the brain that occupies the cranial cavity."

*Change "brain case" to "cranium" which is a more familiar term used in literature and A&P classes.

Page 316 and 317: Signs of Meth Mouth include the following:

- Dry Mouth. **Methamphetamines** dry out the salivary glands, and the acid content in the mouth will start to destroy the enamel on the teeth. Eventually this will lead to cavities.
- Cracked Teeth. **Methamphetamine** can make the user feel anxious, hyper, or nervous, so they clench or grind their teeth. You may see severe wear patterns on their teeth.
- Tooth Decay. **Meth** users crave beverages high in sugar while they are "high." The bacteria that feed on the sugars in the mouth will secrete acid, which can lead to more tooth destruction. With **meth** users, tooth decay will start at the gum line and eventually spread throughout the tooth. The front teeth are usually destroyed first.
- Gum Disease. **Methamphetamine** users do not seek out regular dental treatment. Lack of oral health care can contribute to periodontal disease. **Methamphetamines** also cause the blood vessels that supply the oral tissues to shrink in size, reducing blood flow, causing the tissues to break down.
- Lesions. Users who smoke **meth** present with lesions and/or burns on their lips or gingival inside the cheeks or on the hard palate. Users who snort may present burns in the back of their throats. 27

*For consistency, either "meth" or "methamphetamine" should be used throughout this section and not switch back and forth between the two terms.

Page 317:—"Users who **snort may present burns** in the back of their throats. 27"

*Add the word "with" to make sense—"Users who snort may present **with** burns in the back of their throats.27"

Page 320:—"Have you ever been diagnosed with a medical condition related to your neck such **a** thyroid or swallowing issue?"

*Change to "as"

Page 323:—"The patient's skin tone is appropriate for ethnicity and they **are not diaphoretic**. Facial movements are symmetrical. Nares are patent and no drainage is present. Uvula and tongue are midline. Teeth and gums are in good condition. Patient is able to swallow without difficulty. Trachea is midline. There is no enlargement of the lymph nodes."

** Streamline documentation and replace negative with positive.*

"Patient's skin tone appropriate for ethnicity. Skin warm and dry. Facial movements symmetrical. Nares patent without drainage. Uvula and tongue midline. Teeth and gums healthy. Able to swallow without difficulty. Trachea midline. No enlargement of lymph nodes."

"The patient has a history of asthma and uses a fluticasone inhaler daily. White patches are present on the tongue and inner buccal membranes. Dr. Smith was notified at 1530 and a new order for nystatin medication was received and administered. Patient was instructed to rinse their mouth after every use of fluticasone to prevent thrush from recurring".

**"Patient has history of asthma and uses fluticasone inhaler daily. White patches present on tongue and inner buccal membranes. Dr. Smith notified at 1530 of presence of white patches on tongue and inner buccal membranes. Order for nystatin received and administered. Patient instructed to rinse mouth with water and spit out after using fluticasone to prevent reoccurrence of thrush."*

Page 328: " Brain case: Eight bones that protect the brain in the cranial cavity"

**Change "Brain case" to "Cranium" which is a more familiar terminology.*

"Candidiasis: A fungal infection often referred to as "thrush" when it occurs in the oral cavity in children."

**Change to "Candidiasis is the infection caused when a type of yeast that normally lives in small amounts in mouth, belly or on your skin multiplies and grows out of control. It is called thrush when in the mouth."*

"Laryngopharynx: The portion of the pharynx inferior to the oropharynx and posterior to the larynx that is a passageway for ingested material and air until its inferior end where the digestive and respiratory systems diverge into the esophagus and the larynx."

**Confusing definition. Difficult when you have to look up words in the definition to understand the word being defined in my opinion. Change to "Laryngopharynx is the part of the throat that starts at the epiglottis and goes down to the top of the esophagus"*

"Larynx: The structure connecting the pharynx to the trachea that helps regulate the volume of air that enters and leaves the lungs and contains the vocal cords."

**Larynx is another name for the voice box which includes the vocal cords. It sits above the windpipe (trachea) in the neck and in front of the food pipe (esophagus)."*

Page 338: "Color blindness can occur due to damage to the eye or to the brain".

**Add "The most common kinds of color blindness are genetic."*

Page 234 and 347: "Far vision is tested using the Snellen chart. See Figure 6.12 2 for an image of a Snellen chart. The numerator of the fractions on the chart indicate what the individual can see at 20 feet, and the denominator indicates the distance at which someone with normal vision could see this line. For example, a result of 20/40 indicates this individual can see this line at 20 feet but someone with normal vision could see this line at 40 feet. Test far vision by asking the patient to stand 20 feet away from a Snellen chart. Ask the patient to cover one eye and read the letters from the lowest line they can see. 3 Record the corresponding result in the furthestmost right-hand column, such as 20/30. Repeat with the other eye. If the patient is wearing glasses or contact lens during this assessment, document the results as "corrected vision." Repeat with each eye, having the patient cover the opposite eye. Alternative charts are available for children or adults who can't read letters in English."

"Distant vision is tested by using the Snellen chart. See Figure 8.11 23 for an image of the Snellen chart. Place the patient 20 feet away from the Snellen chart. Ask them to cover one eye and read the letters from the lowest line they can see clearly. Record the corresponding fraction in the furthestmost right-hand column. Repeat with the other eye. If the patient is wearing glasses or contact lens during this assessment, document the results as "corrected vision" when wearing these assistive devices. A person with no visual impairment is documented as having 20/20 vision. A person with impaired vision has a different lower denominator of this fraction. For example, a vision measurement of 20/30 indicates the patient can see letters clearly at 20 feet that a person with normal vision can see clearly at 30 feet. 24 Alternative charts are also available for children or adults who can't read letters in English. See Figure 8.12 25 for an alternative eye chart."

**Does the same information have to be presented twice in the same book? Image of Snellen chart is also presented twice. Can information be "referred to" in one spot or the other?*

Page 244 and 359: 244-“Cranial Nerve VIII – Vestibulocochlear • Test auditory function. Perform the whispered voice test. The whispered voice test is a simple test for detecting hearing impairment if done accurately. See Figure 6.20 12 for an image assessing hearing using the whispered voice test. Complete the following steps to accurately perform this test:

- Stand at arm’s length behind the seated patient to prevent lip reading.
- Each ear is tested individually. The patient should be instructed to occlude the non-test ear with their finger.
- Exhale before whispering and use as quiet a voice as possible.
- Whisper a combination of numbers and letters (for example, 4-K-2), and then ask the patient to repeat the sequence.
- If the patient responds correctly, hearing is considered normal; if the patient responds incorrectly, the test is repeated using a different number/letter combination.
- The patient is considered to have passed the screening test if they repeat at least three out of a possible six numbers or letters correctly.
- The other ear is assessed similarly with a different combination of numbers and letters.”

359- WHISPER TEST The whispered voice test is an effective screening test used to detect hearing impairment if performed accurately. Complete the following steps to accurately perform this test: 3

- Stand at arm’s length behind the seated patient to prevent lip reading.
- Test each ear individually. The patient should be instructed to occlude the nontested ear with their finger.
- Exhale before whispering and use as quiet a voice as possible.
- Whisper a combination of numbers and letters (for example, 4-K-2), and then ask the patient to repeat the sequence.
- If the patient responds correctly, their hearing is considered normal; if the patient responds incorrectly, the test is repeated using a different number/letter combination.
- The patient is considered to have passed the screening test if they repeat at least three out of a possible six numbers or letters correctly.
- The other ear is assessed similarly with a different combination of numbers and letters.

**Same information is presented on both of these pages. Can one section again refer to the other section versus repeating everything twice?*

Page 359:“Extraocular movement and other cranial nerves may also be assessed that affect vision, hearing, and balance”.

**Change wording of sentence to make it clearer—“Extraocular movement and other cranial nerves that affect vision hearing, and balance may also be assessed.”*

Page 359: “ For more information about how to assess PERRLA, extraocular eye movement, and other cranial nerves, go to the “Assessing Cranial Nerves” section in the “Neurological Assessment” chapter.”

**This section refers you back to page 237 for the information on PERRLA instead of repeating it like the Snellen Chart and Whisper test were repeated. Would make sense to cover those two topics the same way instead of repeating the same information twice.*

Page 361: “Sample Documentation of Unexpected Findings

The patient reports awakening with an irritated left eye and crusty drainage but no change in vision. The sclera in the left eye is pink, the conjunctiva is red, and yellow, crusty drainage is present. The patient is able to read the newspaper without visual impairment. Dr. Smith was notified and she evaluated the patient at 1400. A new order for antibiotic eye drops was received and administered. The patient and their family members were educated to wash hands frequently to avoid contagion.”

**Remove past tense and extra words*

“The patient reports awakening with an irritated left eye and crusty drainage with no change in vision. Sclera in the left eye is pink, conjunctiva is read and yellow crusty drainage present. Patient able to read the newspaper without visual impairment. Dr Smith notified and evaluated patient at 1400. Order for antibiotic eyes drops received and administered. Patient and family members educated to wash hands frequently to avoid spreading infection.”

Page 362: “3. Use effective interview questions to collect subjective data about eye or ear eye problems.”

**Eliminate second “eye”about eye or ear problems.”*

Page 376: “• “Review of Basic Concepts” for more about **that** anatomy and physiology of the cardiovascular system”

**Change “that” to “the” to make more sense grammatically.*

Page 377: Review how to assess a patient’s chief complaint using the **PQRSTU** method in the “Health History” chapter.

- Onset – When did the pain start?
- Location – Where is the pain?
- Duration – When it occurs, how long does the pain last? Is it constant or intermittent?
- Characteristics – Describe what the pain feels like (e.g., sharp, dull, heavy, etc.).
- Aggravating/Alleviating Factors – What brings on the pain? What relieves the pain?
- Radiation – Does the pain radiate anywhere?
- Treatment – What have you used to treat the pain?
- Effects – What effect has the pain had on you?
- Severity – How severe is the pain from 0-10 when it occurs?
- Associated Symptoms – Have you experienced any nausea or sweating with the chest pain?

**States “PQRSTU method but questions don’t correspond to this method.*

Change to:

“P-provocation or palliation—What brings on the pain? What relieves the pain?”

Q-Quality or quantity—Characteristics, duration

R-Region or Radiation—Where is the pain? Does it radiate anywhere?

S- Severity—How would you rate the pain on a scale of 0-10?

T-Timing—When did the pain start? How long does the pain last? Anything relieve the pain?

U-Understanding—What do you think is causing the pain?”

Page 377: “Do you ever feel short of breath while sleeping?”

**Change to “Do you ever feel short of breath at rest?”*

Page 383: “The **pulmonary** area is the second intercostal space to the left of the sternum.”

**Change to “pulmonic”*

Page 383: “Erb’s point is directly below the **aortic area** and located at the third intercostal space to the left of the sternum”

**Change to “.....is directly below the pulmonic area and located at the third intercostal space to the left of the sternum.”*

Page 384: “..... and pulmonic valves, the “dub” (S2) will sound louder than the “lub” **(S2)”**

**Change to “.....”lub” (S1)”*

Page 384: “.....valves open, and the ventricles fill with blood.”

**Add in the sentence “S1 corresponds to the palpable pulse.”*

Page 386: “A **pleural friction rub** is caused by inflammation of the pericardium and...”

**Change to “A pericardial friction rub....”*

Page 393: “Capillary refill less than 2 seconds”

**Table on page 393 lists that capillary refill should be less than 2 seconds whereas on page 388, capillary refill time is listed as “2-3 seconds” Make these agree with each other—confusing to students to have different reference ranges.*

Page 396: “7. Palpate the nail beds for capillary refill. Document the capillary refill time as less than or greater than 2 seconds.”

**Change to “Document time in seconds that it takes for capillary refill to occur” would seem more accurate than just “less than or greater than”*

Page 399: “The patient’s vital signs are T 98, P 148, BP 112/68, and ...”

**Add in “T 98 °F”*

Page 401: “**Pleural friction rub**: Uncommon heart sounds produced when the parietal and visceral pericardium become inflamed, generating a creaky scratchy noise as they rub together.”

**Change to “Pericardial friction rub”*

**Remove “saturation” as SpO2 stands for Saturation of Peripheral Oxygen.*

Page 444: “The normal range for SpO2 for an adult without an underlying respiratory condition is above **92%.**”

**Page 434 states “94-98%” Most online sources state 95-100% as the normal range.*

Page 445: “The flow rate is set according to the location of a steel ball inside the cylinder and the numbered lines on the glass cylinder.”

**Add in the sentence: “The line corresponding to the ordered liter flow rate should intersect the middle of the metal ball in the flowmeter.”*

Page 461: “Nasal Cannula Flow rate: **1-6 L/min**”

FiO2: 24% to 44%”

**On page 448, flow rate for nasal cannula is listed as 1-5 L/min Confusing to students when information differs for same devices.*

Page 461: “Simple Mask Flow rate: 6-10 L/min”

FiO2: **28% to 50%**

**On page 450, FiO2 is listed as 35-50% for simple mask. Better if information is presented as the same in both places.*

Page 450: **Add in information and image of an oxymask and oxymizer as RT feels these are currently being used frequently in acute care facilities.*

*** OXYMASK**—O2 delivery device that has an open design that eliminates the need for valves & reservoirs. O2 flow is directed towards the nose and mouth. Large openings in mask allows CO2 to escape, decreases claustrophobia, increases ability to communicate & allows for delivery of PO fluids and meds without removing mask. Can deliver 24-90% oxygen concentration on 1-15 LPM oxygen which increases flexibility & safety of product. May be humidified but often does not need to be due to humidity in room air drawn in.

*** OXYMIZER**—This is a special nasal cannula that provides a larger luminal diameter in combination with an oxygen reservoir. Oxymizer is designed as either a moustache or pendant style. Maintain adequate O2 saturations in hypoxic patients with a lower flow rate resulting in reduced O2 costs, portable O2 sources last longer, decreased nasal irritation & dryness. ¼-1/2 of previous flow rate required. Some patients don’t like the wt. of this device which comes from the oxygen reservoir and the tubing is heavier due to larger diameter. Can deliver up to 15 LPM.

Page 464: “• Safety Tip: When oxygen is in use, teach the patient about safety considerations with oxygen use **because it is very flammable.** See the “Safety with Oxygen Therapy”

** Change to “Safety tip: When oxygen is in use, teach the patient about safety considerations with oxygen use. Oxygen itself is not flammable but can cause other materials that burn to ignite more easily and burn more rapidly.”*

Page 465: “Patient has a history of COPD and reported feeling short of breath after getting up to use the bathroom this morning. Respirations were 24/ minute, pulse oximetry 88% on room air, and lungs sounds were diminished. Oxygen applied via nasal cannula at 2 Lpm, and the patient was

encouraged to take slow deep breaths in through their nose and out of their mouth. After five minutes, the pulse oximetry was 94%, the respiratory rate decreased to 16/minute, and the patient reported the feeling of shortness of breath had subsided.”

**Eliminate past tense: Change to “Patient has history of COPD and reported feeling short of breath after getting up to use the bathroom this morning. Respirations 24/minute, pulse oximetry 88% room air. Lung sounds diminished throughout lung fields. Oxygen applied via nasal cannula at 2 lpm and patient encouraged to take slow deep breaths in through their nose and out of their mouth. After five minutes, pulse oximetry 94% 2 liters nasal cannula, respirations 16/minute with patient reporting shortness of breath resolved.”*

Page 465: “Patient has a history of COPD and heart failure and reported feeling short of breath after getting up to use the bathroom this morning. Respirations were 30/minute, pulse oximetry was 88% on room air, and lungs had crackles in the lower posterior lobes. Oxygen was applied via nasal cannula at 2 Lpm and the patient was encouraged to cough and deep breathe. After five minutes, the respiratory rate and pulse oximetry readings did not improve. Dr. Smith was notified at 0715 and an order for a STAT chest X-ray was received, followed by an order for furosemide 40 mg IV STAT. Furosemide was administered, and 30 minutes later the pulse oximetry increased to 92%, respiratory rate decreased to 18/minute, and there was urine output of 500 mL with reduced crackles in the lower posterior lobes. Patient reported feeling less short of breath.”

**Eliminate past tense: “Patient has history of COPD and heart failure. Reported feeling short of breath after getting up to use the bathroom this morning. Respirations 30/minute, pulse oximetry 88% room air. Crackles to auscultation in lower posterior lobes. Oxygen applied via nasal cannula at 2 lpm and patient encourage to cough and deep breath. After five minutes, no improvement in respiratory rate or SpO2. Dr. Smith notified at 0715. Order for STAT chest X-ray received and furosemide 40 mg IV STAT. Furosemide administered. 30 minutes later, SpO2 92% with O2 at 2 liters per nasal cannula. Respiratory rate 18/minute. Urine output of 500 mL with decreased crackles in the lower posterior lobes. Patient reported feeling less short of breath.”*

Page 466: “4. Perform a focused respiratory assessment including airway, respiratory rate, pulse oximetry rate, and lung sounds.”

**Change to “pulse oximetry,” Eliminate the word “rate”*

Page 483: “Palpate the bladder for distention.”

**Add how to do this—“Palpate gently from umbilicus down toward the pelvis feeling for a full bladder. The bladder is not normally palpable but a distended bladder may reach the umbilicus. A full bladder presents as a pelvis mass which is typically, regular, smooth, firm, and oval-shaped. It arises in the midline.*

Page 485: “Expected Findings

Inspection Symmetry of shape and color
Flat or rounded contour (protuberant in children until age 4)
No visible lesions
Intact skin
Colostomy”

**Is a colostomy an expected finding in the Inspection of GI and GU*

PAGE 487: “Pain reported at 7/10 and guarding noted with palpation of the RLQ. Dr. Smith notified at 0730.”

**On page 483 “guarding” is defined as voluntary contraction of abdominal wall musculature, usually the result of fear, anxiety, or touch of cold hands. This seems like a normal reaction but on page 485, guarding is in the “Unexpected Findings” Column. Guarding can be separated into 2 different categories—voluntary and involuntary. Voluntary guarding is the definition as above. Involuntary guarding is from localized peritoneal inflammation causing reflex contraction of overlying abdominal muscles upon palpation.*

Page 493: “Guarding: Voluntary contraction of abdominal wall musculature; may be related to fear, anxiety, or presence of cold hands.”

**Should this definition be separated into voluntary versus involuntary guarding? based on notes above?*

Page 493: “Hematemesis: Blood-tinged mucus secretions from the lungs.”

** Change to “Hematemesis: the vomiting of blood”*

Page 499: “Bones are connected together by ligaments.”

**Change to “Some bones are connected by ligaments. Most bones of the skull are held together by sutures, a narrow fibrous joint. Ligaments are bands of tough elastic tissue around joints. The body has ligaments around the knees, ankles, elbows, shoulders and some other joints.”*

Page 500: “There are three types of muscle tissue: skeletal muscle, cardiac muscle, and smooth muscle. Skeletal muscle produces movement, assists in maintaining posture, protects internal organs, and generates body heat. Skeletal muscles are voluntary, meaning a person is able to consciously control them, but they also depend on signals from the nervous system to work properly. Other types of muscles are involuntary and are controlled by the autonomic nervous system, such as the smooth muscle within our bronchioles.

Add in Skeletal muscles **are attached to the skeleton and produce movement, assist in maintaining posture, protects internal organs, and generates body heat.*

After “....., such as the smooth muscle within our bronchioles.”

Add “Cardiac muscle is located only in the heart and are involuntary muscles that the autonomic nervous system controls. Smooth muscle makes up the organs, blood vessels, digestive tract, skin and other areas and is controlled by the autonomic nervous system.”

Page 502: “Although physiologic atrophy due to disuse can often be reversed with exercise, muscle atrophy caused by age is irreversible.”

** Many sources: “Muscle loss in elderly patients can be reversed.”*

Cleveland Clinic “Treatment for sarcopenia typically includes lifestyle changes. These modifications to your lifestyle behaviors can treat and help reverse sarcopenia.

- **Physical activity:** Your healthcare provider may recommend progressive [resistance-based strength training](#). This type of exercise can help improve your strength and reverse your muscle loss.
- **Healthy diet:** When paired with regular exercise, [eating a healthy diet](#) can also help reverse the effects of sarcopenia. It’s especially important to increase your protein intake through food or supplements.”

Page 505: “Figure 13.6 **Should** Joint”

**Should be “Shoulder Joint”*

Page 508: “The knee functions as a hinge joint that allows flexion and extension of the leg. In addition, **some rotation of the leg is available when the knee is flexed, but not when extended”**

** “There is an observable rotation of the knee during **flexion and extension**. This rotation is important for healthy movement of the knee. During the last 30 degrees of knee extension, the tibia (open chain) or femur (closed chain) must externally or internally rotate, respectively, about 10 degrees.”*

Page 517: “See more information about hip replacement under the “Osteoarthritis” section **below**.”

**Remove the word “below” as the way the pages come out, there is nothing below this paragraph. Change instead to*

“See more information about hip replacement in the following “Osteoarthritis” section.”

Page 529: “use the PQRS**TU** method” but then in the table below this paragraph, it stops after the letter “T”.

**Add “U: What do you think is causing the pain?”*

Page 535: “No spine curvature” is listed in the table by “Inspection” and under “Expected Findings”

**Change to “No spine curvature when viewed from the back. A healthy spine when viewed from the side has gentle curves to it.”*

Page 573: “Mother brought the child into the clinic for evaluation of an “itchy rash around the mouth” that started about three days ago. Crusted pustules **are** present around the patient’s mouth. Dr. Smith evaluated the patient and **a** prescription for antibiotics **was** provided. Mother and child **were** educated **to use** **ON** good hand hygiene practices to prevent **the** spread of infection.”

**Change to “Mother brought the child into the clinic for evaluation of an “itchy rash around the mouth” that started about three days ago. Crusted pustules present around the patient’s mouth. Dr. Smith evaluated the patient and prescription for antibiotics provided. Mother and child educated on good hand hygiene practices to prevent spread of infection.”*

Page 587: “**Right Drug** During this step, the nurse ensures the medication to be administered to the patient matches the order or Medication Administration Record (MAR) and that the patient does not have a documented allergy to it.”

**Maybe someplace it should be added it to check the expiration date of the medication being administered. I didn't see the expiration date mentioned anywhere in the chapter besides in the guidelines on page 610. The students are taught that besides the 5 tried and true rights, each drug is checked for allergies and expiration date.*

Could be added after the above sentence. "Each drug should be checked for an expiration date also."

Now I see on page 593 "1. Perform the first check as the unit dose package, blister pack, or pill bag is removed from the dispensing machine or medication cart. Also, check the expiration date of the medication."

Still think it would be good to add the expiration date in where the "checks" are explained in more detail.

Page 602: In Figure 15.13 Administering Medication via a Gastric Tube

**Should the person administering medications via a gastric tube in this image be wearing gloves?*

Page 603: "To reduce medication errors, agencies are also adopting many initiatives developed by the World Health Organization (WHO), 48 the Institute for Safe Medication Practices (ISMP), the Institute of Medicine The (IOM), 49 and several other organizations."

**Remove the word the after the Institute of Medicine The*

Page 625: "Safely administer medications and irrigations for the eye, ear, inhalation, and vaginal routes"

**Add nasal route to this learning objective as administering nasal medications is covered in the chapter.*

Page 627: "For documentation purposes, the nurse should initial, date, and time a piece of tape that is applied close to the patch. The patch should not be written on directly because this may puncture the patch and cause it to become ineffective"

** Per Lippincott "Label the new patch with a marking pen with the date, time, and your initials or as directed by your facility."*

"Specialist Pharmacy Service (SPS) released guidance for rivastigmine patches in March 2021. This guidance recommends writing the date the patch is applied in ballpoint pen on the back of the patch which could help with clarification if needed at a later date."

Page 629: "...caution must be taken not to introduce debris into the middle or inner air"

** Should be "ear" and not "air"*

Page 634: "If a spacer is not available, the patient should exhale and hold the inhaler mouthpiece about 1 to 2 inches away from their mouth to help ensure the medication is inhaled via the larynx and not sprayed onto the posterior pharynx."

**Per Lippincott: "place the prescribed MDI or spacer into the patient's mouth and tell the patient to close the lips around it using a closed mouth technique" "Alternatively, if directed by the practitioner, use an open-mouth technique by holding the prescribed MDI 1" to 2" (2.5 to 5 cm) in front of the patient's mouth"*

**Per Up To Date revision date of 2023 "Seal lips around the mouthpiece"*

Page 636: B. Eye Drops: ▪ Perform hand hygiene.

C. Ear Drops: ▪ Perform hand hygiene.

D. Nose Spray: ▪ Perform hand hygiene

F. Metered-Dose Inhaler Perform hand hygiene

G. Dry Powder Inhaler (DPI) Perform hand hygiene

** Does not say to "Apply gloves" prior to administering eye, ear, nasal, or inhaler type medication.*

Lippincott states "Put on gloves, as needed, to comply with standard precautions" is listed for ear, eye and nasal medications

Also, Checklists do not have you removing gloves prior to performing hand hygiene after applying a transdermal patch, or inserting vaginal cream or suppository

Under "E. Vaginal Cream or Suppository", you "dispose gloves and perform hand hygiene" but you never put the gloves on in the first place

Page 638: " IF NO SPACER USED: Patient should exhale out breath and hold the inhaler one to two inches from their mouth and inhale slowly and deeply as they push down on the inhaler to release the medication. The patient will then hold their breath for 5 to 10 seconds and release their breath through pursed lips. This can be repeated for a second puff after 1-5 minutes.

▪ Instruct the patient to rinse mouth after finishing with the inhaler.

**Again, the sources I read including Lippincott, have the patient place mouthpiece in the mouth with lips sealed around it regardless of whether a spacer is used or not unless directed by MD as noted below. Maybe mention both in the textbook?*

"Alternatively, if directed by the practitioner, use an open-mouth technique by holding the prescribed MDI 1" to 2" (2.5 to 5 cm) in front of the patient's mouth"

** Mouth does not need to be rinsed after finishing with all inhalers, just corticosteroids. Lippincott "When administering inhaled corticosteroids, such as beclomethasone, budesonide, ciclesonide, flunisolide, fluticasone, and triamcinolone, instruct the patient to rinse and gargle with water and then to expectorate using an emesis basin after each dose (if necessary) to help prevent an infection in the mouth."²³²*

Page 639: "1. You are caring for an elderly patient who is complaining of pain, severe nausea, and who has difficulty swallowing. In addition to intravenous medication administration, what route of medication delivery might be beneficial for this patient? Please provide rationale for your selection."

**The answer in the book is transdermal medication administration. Could more information be added to the question specifying the type of pain and rating of the pain? (i.e. chronic back pain rated as a 3 on 0-10 scale) Many drug references refer to the slow onset of transdermal pain medication. "Onset. After application of the first patch, it may take 12 to 18 hours to reach peak of pain relief."*

Page 651: "Enteral Nutrition (EN) refers to nutrition provided directly into the gastrointestinal (GI) tract through an enteral tube that bypasses the oral cavity. Each year in the United States, over 250,000 hospitalized patients from infants to older adults receive EN. It is also used widely in rehabilitation, long-term care, and home settings. EN requires a multidisciplinary team approach, including a registered dietitian, health care provider, pharmacist, and bedside nurses."

**From the American College of Gastroenterology "Enteral nutrition refers to any method of feeding that uses the gastrointestinal (GI) tract to deliver nutrition and calories. It can include a normal oral diet, the use of liquid supplements or delivery by use of a tube (tube feeding)."*

This definition is different than what is in the book. If the word "tube" is added such as "Enteral tube Nutrition" then the definition would be more accurate? Enteral versus parenteral meaning intestinal tract versus intravenous but the mouth is also part of the enteral route so technically not bypassing the oral cavity.

Definition on Page 666 would need to be changed also if the definition on page 651 is changed.

Page 657: "Assess tube placement every four hours and prior to administration of feedings or medications according agency policy"

**Add the word "to" after "according" and "before agency"*

Page 658: "... at the nares at 55 cm and gastric aspirate had a pH 4. Patient tolerated 240 mL of tube feeding by gravity followed by a 30-mL water flush."

**Add "of" after "pH". Maybe more details in second sentence—Patient tolerated 240 mL of Ensure Plus tube feeding given by gravity over 5 minutes followed by 30 mL water flush.*

Page 669: "There are four potential routes of parenteral injections, including intradermal (IM), subcutaneous (SQ), intramuscular (IM), and intravenous (IV)."

** Change "intradermal" to (ID) instead of "(IM)"*

Remove "(SQ)" from after "subcutaneous" as SQ is on the list of error prone abbreviations. Either (Subcut or subcutaneously)

Page 670: "Luer lock syringes have threads in the needle hub that provide a secure connection of needles, tubing, or other devices."

**Add in information about a second type of syringe available and an image of this type. Slip tip syringes have been in several different foley kits.*

"Luer Slip (or Slip Tip) – allows a needle to be quickly and conveniently pushed straight on to the end of the tip (if a needle is required)."

Page 671: “All insulin syringes have orange caps for quick identification, but verify the markings are in units to prevent a medication error.”

**Add a sentence in “Insulin syringes are available in two different sizes: one which can hold 50 units and one which can hold 100 units.”*

Page 680: “A vial is a single- or multi-dose plastic container with a rubber seal to...”

**Add in the word “glass” “A vial is a single- or multi-dose plastic or glass container with a rubber seal to...”*

Page 680: “To remove medication from a vial, pull air into the syringe to match the amount of medication you plan to remove. Hold the syringe like a pencil and insert the needle into the rubber stopper on the top of the vial.”

**Add in a sentence prior to “Hold the syringe.... “Clean the top of the vial by scrubbing with an alcohol wipe and allow to dry.”*

Page 684: “Always perform hand hygiene before preparing and after administering the injection with facility-approved, alcohol-based hand sanitizer”

**Add to this sentence---“Always perform hand hygiene before and after preparing the injection and before and after administering the injection with facility-approved alcohol-based hand sanitizer or soap and water.”*

Page 684: “After administration, use the scoop-cap method to recap the needle to avoid needlestick injuries and place the used syringe/needle immediately in the sharps container.”

**Change to “After drawing up the medication from the vial, use the scoop-cap method to recap the needle to avoid needlestick injuries. After administration of the medication, activate the safety and place the used syringe/needle immediately in the sharps container.”*

Page 685: “When using an alcohol swab, use a circular motion to rub the area for 15 seconds, and then let the area dry for 30 seconds.”

**WHO site recommends cleaning for 30 seconds and allowing site to dry for 30 seconds. On page 690, the book states “Clean the site with an alcohol swab or antiseptic swab for 30 seconds using a firm, circular motion.*

Contradictory information presented.

Page 686: “Removing medication residue on the tip of the needle has been shown to reduce pain and discomfort of the injection. To remove residue from the needle, change needles after medication is removed from a vial and before it is administered to the patient.”

**Several different viewpoints on this information as noted below.*

Registerednursern.com “WHY is the needle changed out...why can't I use it to give the medication? The needle loses its integrity and becomes less sharp after penetrating the rubber stopper. This would cause pain to the patient during administration. Furthermore, medication residual can be on the needle during withdrawal from the vial, and if administered to the patient with the residual present on the needle, it can cause issues to the surrounding tissues.”

CDC “Changing needles between drawing vaccine from a vial and injecting it into a recipient is not necessary unless the needle has been damaged or contaminated (11).”

Lippincott—“Change the needle if it becomes damaged or contaminated.”

Is it recommended to change needles after a vaccine dose has been drawn into a syringe?

No. It is also unnecessary to change the needle if it has passed through two stoppers, which is done when a lyophilized vaccine is reconstituted. Changing needles is a waste of resources and increases the risk of needle stick injury.

Page 690: “Use a tuberculin syringe, calibrated in tenths and hundredths of a milliliter, with a needle length of 1/4 inches or 1/2 inches and a gauge of 26 or 27. 5 See Figure 18.16 6 for an image of a tuberculin syringe.”

*Change to "1/4 inches to ½ inches"

Page 691: Figure 18.18 Intradermal Injection

**This image shows the index finger holding tissue taut above the needle insertion site. Nurses should always keep fingers/thumb behind the injection site to prevent accidental needle stick injury if patient moves while administering injection. Hold tissue taut behind injection site would be a better image.*

Page 691: "Once the syringe is in place, use the thumb of the nondominant hand to push on the plunger to slowly inject the medication"

**Several sources including Lippincott and Elsevier have nurse using their dominant hand to push the plunger and inject the medication. May be difficult to use thumb of nondominant hand? I would remove "use the thumb of nondominant hand" and just have sentence read- "Once the syringe is in place, push on the plunger to slowly inject the medication." Person can use whatever feels the most coordinated way to push the plunger. Also on page 696, the book states with subcutaneous injection "With your dominant hand, inject the medication..." Confusing to have ID given with nondominant hand and Subcut with dominant?*

Page 694: "A 90-degree angle is used for normal-sized adult patients or obese patients, and a 45-degree angle is used for patients who are thin or have with less adipose tissue at the injection site."

**Remove the word "with"*

Page 696: "With your dominant hand, inject the medication at a rate of 10 seconds per mL. Avoid moving the syringe. Withdraw the needle quickly at the same angle at which it was inserted."

**Would remove this specific rate of administration. Rarely will give an entire mL of insulin. Students are taught that insulin is calculated in units but putting a mL into the time frame is confusing. Most sources site "Push the plunger with your thumb at a moderate, steady pace until the insulin is fully injected." No specific time frame given.*

** Add "Wait 10 seconds before removing needle" as several sources recommend this.*

Kaiser Permanente Wait 10 seconds before you pull the needle out of your skin

Healthline: Push the plunger all the way down and wait for 10 seconds.

American Diabetes Association Wait 5 seconds before pulling out the needle. Counting to 10 is a good way to be sure that all of the insulin has gone in.

Journal of Diabetes Science and Technology The 10-second waiting technique is recommended to prevent any leakage of liquid in patients receiving subcutaneous insulin injections. For the 10-second waiting technique, a 90° needle is directly inserted into the subcutaneous tissue and patients wait at least 10 seconds after the injection before the needle is withdrawn from the skin.

Page 697: "There are rapid-, short-, intermediate-, and long-acting insulins."

**Add in "Insulin vials and pens commonly have a concentration of 100 units in 1 mL (100 units/mL), which is called U-100. However, some insulin products come in a higher concentration. U-200 means that there are 200 units of insulin in 1 mL (200 units/mL), U-300 means that there are 300 units of insulin in 1 mL (300 units/mL), and U-500 means that there are 500 units of insulin in 1 mL (500 units/mL). Given that a brand of insulin may come in different concentrations, it is important to look at the insulin pen or vial for the concentration." "When using insulin via a vial and syringe, make sure the insulin concentration on the vial and syringe match (such as when using a vial with an insulin concentration of U-100, only use syringes that are for U-100 insulin). There is currently one concentrated insulin available in a vial (HUMULIN R U-500 vial), and there is a corresponding U-500 syringe." From the American Diabetes Association*

Page 698: "Also, make sure the insulin is not past its expiration date. Pull air into the syringe to match the amount of insulin you plan to remove."

**Add after ".....expiration date." "Clean the top of the vial by scrubbing with an alcohol wipe and allow to dry." And then "Pull air into the syringe to match the amount of insulin....."*

Page 698: "See Figure 18.25 17 for an image of insulin NPH that is cloudy in color."

** Change the order of words to "NPH insulin"*

Page 699: “For example, insulin NPH (Novolin-N) can be mixed with insulin regular (Humulin-R), insulin aspart (Novolog), or insulin lispro (Humalog). However, some types of insulin cannot be mixed with other insulin, such as insulin glargine (Lantus) or insulin detemir (Levemir).”

**Would switch the order of all these types of insulin—usually the type of insulin precedes the word “insulin”*

“For example, NPH insulin (Novolin-N) can be mixed with regular insulin (Humulin-R), aspart insulin (Novolog), or lispro insulin (Humalog). However, some types of insulin cannot be mixed with other insulin, such as glargine insulin (Lantus) or detemir insulin (Levemir).”

Page 699: “...by turning the vial on its side and rolling it between the palms of your hands. Prepare the insulin vials by injecting air into the intermediate insulin vial.”

**Add a sentence in after “hands” and before “Prepare” “Clean top of insulin vials with separate alcohol pads.” See paragraph below.*

Page 699: “Prepare the insulin vials by injecting air into the intermediate insulin vial. Remove the cap from the needle. With the vial of insulin below the syringe, inject an amount of air equal to the dose of intermediate insulin that you will be taking.

**Instructions have you injecting air twice and not cleaning vials with alcohol. Change this paragraph to: “Gently mix intermediate or premixed insulin by turning the vial on its side and rolling it between the palms of your hands. Clean the top of each vial with a separate alcohol wipe for 30 seconds and allow to dry. Remove the cap from the needle. Holding the vial of intermediate insulin below the syringe, insert needle and inject an amount of air equal to the dose of intermediate insulin ordered. Do not draw out the insulin into the syringe yet. Remove the needle from the vial. Inject air into the rapid-acting insulin vial equal to the rapid-acting insulin dose.*

Page 700: “It is no longer necessary to rotate anatomic regions, as was once done, because newer insulins have a lower risk for causing hypertrophy of the skin.”

**Should be lipohypertrophy. “Lipohypertrophy is a lump of fatty tissue under your skin caused by repeated injections in the same place. It’s common in people with diabetes. Lipohypertrophy can affect your body’s ability to absorb insulin and cause serious complications.”*

I couldn’t find any source indicating that newer insulins have a lower risk of lipohypertrophy. I did find “Modern insulin products are well absorbed and act about the same regardless of where they are injected.” (ADA) Sources still stress importance of rotating sites but can stay in same anatomical region.

Web MD 2022—“Up to 62% of people with type 1 or 2 diabetes can get lipohypertrophy. This can happen when insulin is injected into the same patch of the skin too many times, leading to building up of fat and protein.”

Page 701: “Signs and symptoms of hypoglycemia include fruity breath, restlessness, agitation, confusion, slurring of words, clammy skin, inability to concentrate or follow commands, hunger, and nausea.”

**Remove fruity breath, restlessness, agitation. Fruity breath is a sign of DKA not hypoglycemia. Most sources list shakiness, irritability or anxiety, dizzy in addition to confusion, slurring of words, etc.*

Page 676 versus page 690: Intradermal on chart on page 676 is listed as 25-27 G needle with 3/8-5/8” length and total amount of injectable fluid 0.1 mL

Intradermal on page 690 lists 26-27 G needle with 1/4-1/2” length and total of 0.5 mL injectable fluid

**Make information match on these two pages.*

Page 677 versus 706 and 707: Chart on 677 states “2-5 mL” for total amount of injectable fluid in an adult for IM. Page 706 states “2-5 mL”. Page 707 states “Up to 3 mL of medication may be administered in the ventrogluteal muscle of an average adult and up to 1 mL in children.”

**Better if these numbers matched each other. Elsevier states “no more than 3 mL of medication should be administer in a single IM injection because the muscle tissue does not absorb it well in large volumes.”*

Page 719: The information for intradermal matches the chart on page 676 but not the information given on page 690. Again all should match between the information on the chart on page 676, the written materials on page 690, 694, 706, and 707.

Page 719

1. Describe the appropriate needle gauge, length, number of cc’s, and angle for an intradermal injection:

**Change « cc’s » to « mL » as that is the terminology used throughout the rest of chart*

- | | | |
|---------------------------|--------------|--------|
| ◦ 25-27G | All the same | 26-27G |
| ◦ 3/8" to 5/8" | | ¼-1/2" |
| ◦ 0.1 mL (for TB testing) | | 0.5 mL |
| ◦ 5 to 15 degree angle | | |

Chart Page 791

Chart Page 676-677

689-707

2. Demonstrate locating the intradermal injection sites on a peer:

- | | | |
|------------------------------|--------------|---------------------------------|
| ◦ Upper third of the forearm | All the same | inner surface of forearm |
| ◦ Outer aspects upper arms | | upper arms not listed as a site |
| ◦ Between scapula | | upper back below scapula |

3. Describe the appropriate needle gauge, length, number of mL, and angle for a subcutaneous injection:

- | | | |
|-------------------------|--------|--------------|
| ◦ 25-31G | | |
| ◦ to 5/8" | ½-5/8" | All the same |
| ◦ Up to 1 mL | | |
| ◦ 45 to 90 degree angle | | |

4. Demonstrate locating the subcutaneous injection sites on a peer:

- | | | |
|-------------------|--------------------------|---|
| | Upper outer gluteal area | upper ventral gluteal area |
| | Outer upper arms | outer lateral aspect upper arm |
| | Upper back | upper back |
| ◦ Anterior thighs | Same | anterior upper thighs |
| ◦ Abdomen | Same | abdomen-below costal margin to iliac crest, 2" from umbilicus |

5. Describe the appropriate needle gauge, length, number of mL, and angle for an adult intramuscular:

- | | | |
|---|--------|------------|
| ◦ 18-25G | | |
| ◦ - 1 ½" (based on age/size of patient and site used) | ½-1 ½" | 5/8-1 ½" |
| ◦ <0.5 – 1 mL (infants and children), 2-5 mL (adults) | | up to 3 mL |
| ◦ 90-degree angle | | |

6. Demonstrate locating the intramuscular injection sites on a peer:

- | | |
|--------------------|----------------------------|
| ◦ Ventrogluteal | |
| ◦ Vastus lateralis | Should be Vastus lateralis |
| ◦ Deltoid | |

Page 711: "To locate this area, lay three fingers across the deltoid muscle and below the acromion process. The injection site is generally three finger widths below in the middle of the muscle."

*Terminology confusing to me. One of the 3 explanations below seem clearer

* Find the acromion process, which is the bony point at the end of the shoulder. The injection site will be approximately 2 inches below the bone and above the axillary fold/armpit.

*Find the acromion process, which is the bony bit that sticks out from your shoulder, just above the deltoid muscle. Approximately 2–3 fingerbreadths (approximately 2 inches) below the acromion process, and sitting just above the level of the armpit, in the central part of the upper arm is the deltoid injection site

*first locate the **acromion process**. This forms the highest part of the outer shoulder and is a bony area. Once you find this area, go about 2 fingers widths below this area, which will be the injection site for the deltoid muscle.

Page 712: "With your dominant hand, hold the syringe like a dart and inject the needle quickly..."

*Change "inject" to "insert"

Page 718: "Review and assess pertinent laboratory results (i.e., blood glucose, prothrombin times). Be aware of abnormal kidney and liver function results because they may affect metabolism of medication. Notify the prescriber of any concerns."

*? Change to partial thromboplastin time instead of prothrombin time as prothrombin is for coumadin which is a PO medication. Partial thromboplastin time appropriate for heparin administration.

Page 720: "3. Gather available supplies: correctly sized syringes and needles appropriate for medication, patient's size, and site of injection; diluent (if required); tape or patient label for each syringe; nonsterile gloves; sharps container; and alcohol wipes."

"6. Select the correct type of syringe and needle size appropriate for the medication, patient size, and site of injection."

**Step #3 and #6 are duplications of each other. Can omit step #6.*

Page 721: "g. With the regular vial on a flat surface, remove the cap from the syringe, insert the needle into the regular vial, and inject air.

h. With the needle still in the vial, invert the regular insulin vial and withdraw the correct dose. Remove the needle from the vial. Cap the needle using the scoop method.

i. Roll the NPH insulin vial between your hands to mix the solution. Uncap the needle and insert the needle into the NPH insulin vial. Withdraw the correct amount of NPH insulin. Withdraw the needle and recap using the scoop method."

**Remove this phrase "remove the cap from the syringe" as air was just instilled into the NPH vial so there is not a cap on the syringe.*

NPH insulin should be rolled between your hands to mix the solution prior to cleaning off the tops of the vials. This would allow the "Cap the needle using the scoop method in step h to be omitted as can go from drawing up regular insulin to NPH insulin. Can remove "uncap the needle" in step i also then.

Page 721: "c. Turn the dial to two units and push the injection button to prime the pen."

**Add in "with pen pointing up" "Turn the dial to two units and with the pen pointing upward, push the injection button to prime the pen." Need the air to go to the top of the pen.*

Page 722: "g. Use the thumb of the nondominant hand to push on the plunger to slowly inject the medication."

** Would eliminate "Use the thumb of the nondominant hand" as everyone's coordination is different. May be easier to inject with dominant thumb.*

Page 723: "e. Inject the needle at 90-degree angle, release the patient's skin, and inject the medication."

**Change "Inject" to "Insert" and add "45" before "90"*

"e. Insert the needle at 45-90-degree angle depending upon the size of the patient, release the patient's....."

Page 723: "Subcutaneous with an Insulin Pen

a. Select the site and clean with an alcohol prep in a circular motion. Place the pad above the site to mark the location, if desired. Remove the cap from the needle without contaminating the needle.

b. Put on nonsterile gloves if contact with blood or body fluids is likely or if your skin or the patient's skin isn't intact.

c. Pinch approximately an inch of subcutaneous tissue, creating a skinfold.

d. Inject the needle quickly at a 90-degree angle, continue to hold the skinfold, and inject the medication. After the medication is injected, count to 10, remove the needle, and release the skinfold.

**Should put on gloves prior to removing the cap from the needle—can't hold the syringe and put on gloves at the same time. Change "inject" to "insert"*

Page 723: "d. Depending on the muscle mass of the deltoid, either grasp the body of the muscle between the thumb and forefingers of the nondominant hand or spread the skin taut."

**Didn't find any U.S. sources that have you bunch up the muscle for an IM injection. Seems like it would make more sense to have a shorter needle to ensure you don't go beyond the muscle.*

Page 723: "e. Inject the needle at a 90-degree angle"

**Change to "insert"*

Page 723: "g. Continue to hold the muscle fold and inject the medication. After the medication is injected, count to 10, remove the needle, and release the muscle fold."

**If you remove the "grasp the body of the muscle" from step d under deltoid IM administration, then this step needs to be reworded also.*

Page 723-724: IM-Vastus Lateralis "d. Depending on the muscle mass of the vastus lateralis, either grasp the body of the muscle between the thumb and forefingers of the nondominant hand or spread the skin taut.

e. Inject Change to insert the needle at a 90-degree angle.

f. Follow agency policy and manufacturer recommendations regarding aspiration.

g. Continue to hold the muscle fold and inject the medication. After the medication is injected, count to 10, remove the needle, and release the muscle fold.

**Again, I'm not sure about grasping the muscle between the thumb and forefinger. This would change step g also. Numerous sources state that all IM injections should be given with the Z-track including deltoid and vastus lateralis sites.*

Page 701: "Signs and symptoms of hypoglycemia include fruity breath, restlessness, agitation, **confusion**, slurring of words, clammy skin, inability to concentrate or follow commands, **hunger**, and **nausea**."

Page 733: "Hypoglycemia is defined as blood sugar readings less than 70 and signs and symptoms such as the following: • Shakiness • Feeling nervous or anxious • Sweating, chills, and clamminess • Irritability or impatience • **Confusion** • Fast heartbeat • Feeling light-headed or dizzy • **Hunger** • **Nausea** • Color draining from the skin (pallor) • Feeling sleepy • Feeling weak or having no energy • Blurred/impaired vision • Tingling or numbness in the lips, tongue, or cheeks • Headaches • Coordination problems or clumsiness • Nightmares or crying out during sleep • Seizures"

**Less confusing if the terminology is the same as both of these are the signs and symptoms of hypoglycemia but only 3 terms are the same.*

Page 736: "Wipe away the first drop of blood and use the second drop for the blood sample."

**Add in "Some institutions may have policy that the first drop of blood is used for testing."*

Page 743: "If these interventions are not successful, a sputum sample may be obtained via oropharyngeal or endotracheal suctioning; these methods are used to obtain sputum samples for patients who are intubated."

**Sentence seems confusing—sputum specimens can be obtained via oropharyngeal or nasopharyngeal suctioning on a patient who is not intubated. Would use endotracheal suctioning on an intubated patient.*

Page 744: "• Explain the procedure to the patient. Instruct them to flush the toilet before defecating to remove any potential chemicals and to not place toilet paper in the toilet after defecating. Request they notify you when they have had a bowel movement."

**Add step in "Place collection container (hat) in the toilet to collect stool specimen." Not sure about the flushing the toilet part as some toilets automatically have chemicals added to the bowl with each flush.*

Page 745: "Patient alert and oriented x 3, sitting in a wheelchair and awaiting breakfast. Patient denies symptoms of hypoglycemia or hyperglycemia. Bedside blood glucose obtained with results of 135 mg/dL. 2 units of regular insulin given **subcutaneously left abdomen** per sliding scale. Breakfast delivered to the patient."

**Add in the route insulin was given and where.*

Page 745: "0730: Patient alert and oriented x 3, sitting in a wheelchair and awaiting breakfast. Denies symptoms of hypoglycemia **and** hyperglycemia. Bedside blood glucose obtained with results of 185 mg/dL. 6 units of regular insulin given per sliding scale along with 34 units of scheduled NPH insulin as breakfast tray was delivered to patient.
0900: Patient only ate 25% of breakfast and complains of headache, fatigue, and dizziness. Patient is shaking and irritable but alert and oriented x 3. Blood glucose was rechecked and results were 65 mg/dL. 4 ounces of orange juice was provided.
0915: Blood glucose rechecked and results were 95 mg/dL. Patient states, "I'm feeling much better and not dizzy anymore." Shakiness has resolved. Provided a peanut butter sandwich per patient request. Will continue to monitor the patient for signs of hypoglycemia. Call light within reach."

**Remove past tense and add in route and site. Change "and" to "or" as can't have hypo and hyper at same time
"0730: Patient alert and oriented x 3, sitting in wheelchair awaiting breakfast. Denies symptoms of hypoglycemia **or** hyperglycemia. Bedside blood glucose 135 mg/dL. 2 units of regular insulin per sliding scale along with 34 units of scheduled NPH insulin given subcutaneously left abdomen as breakfast tray delivered to patient.*

0900: Patient ate 25% of breakfast and complains of headache, fatigue, and dizziness. Patient shaking and irritable. Alert and oriented x 3. Blood glucose 65 mg/dL. 4 ounces of orange juice given.

0915: Blood glucose 95 mg/dL. Patient states, "I'm feeling much better and not dizzy anymore." Shakiness resolved. Provided a peanut butter sandwich per patient request. Will continue to monitor for signs of hypoglycemia. Call light within reach."

Page 746: "4. Have the patient wash their hands with soap and warm water, and position the patient comfortably in a semi-upright position in a bed or upright in a chair."

"10. Select the appropriate puncture site. Cleanse the site with an alcohol swab for 30 seconds and allow it to dry. Perform the skin puncture with the lancet, using a quick, deliberate ..."

**Step 4 has the patient washing site with soap and water and then step 10 has cleaning of site with alcohol. Do not need 2 methods of cleaning. Combine these 2 steps*

"4 Either have the patient wash their hands with soap and warm water and dry well or select puncture site and cleanse with an alcohol swab for 30 seconds and allow to air dry."

Page 747: ~~—~~ "Wipe away the first drop of blood with gauze.

12. Transfer the second drop of blood to the reagent strip per manufacturer's instructions:"

**Again, add in "If facility policy states to do so, wipe away the first drop of blood with gauze." Not all sources have as part of the procedure, to wipe away the first drop of blood. Some use the first drop of blood for testing.*

Page 749: "1. Gather supplies: N95 respirator (or face mask if respirators are not available), gloves, gown, eye protection (goggles or disposable face shields that cover the front and sides of the face), and physical barriers (e.g., plexiglass) if needed."

**In gathering supplies, only PPE supplies are obtained and not items necessary to perform the actual skill of obtaining a nasal swab. (Biohazard bag and nasal swab etc)*

Page 761: "Wounds that heal by **secondary infection** are at higher risk for infection and must be protected from contamination."

**Change to "secondary intention"*

Page 767: "Ranges of scores indicate mild risk for scores 15-19, moderate risk for scores 13-14, high risk for scores 10-12, and severe risk for scores less than 9".

**Confusing wording?*

"A total score of 15-19 indicates mild risk, 13-14 indicates moderate risk, 10-12 indicates high risk and less than or equal to 9 indicates severe risk."

Page 796: "Sample Documentation of Expected Findings 3 cm x 2 cm Stage 3 pressure injury on the patient's sacrum. Dark pink wound base with no signs of infection. Cleansed with normal saline spray and hydrocolloid dressing applied."

**Maybe add in depth of wound since it is classified as stage 3*

Sample Documentation of Unexpected Findings 3 cm x 2 cm Stage 3 pressure injury on the patient's sacrum. Wound base is dark red with yellowish-green drainage present. Periwound skin is red, warm, and tender to palpation. Patient temperature is 36.8C. Cleansed with normal saline spray and wound culture specimen collected. Hydrocolloid dressing applied and Dr. Smith notified. Order received for wound culture."

**Add in depth of wound, amount of drainage and change order of documentation. Currently, culture obtained before the order.*

"3 cm x 2 cm x 1 cm Stage 3 pressure injury on sacrum. Wound base dark red with yellow-green drainage present. Removed 4 x 4 dressing has 5 cm diameter ring of drainage present. Periwound skin red, warm, tender to palpation. Temperature 36.8°C. Dr. Smith notified of all the above. Wound culture order received. Wound cleansed with normal saline spray, wound culture collected, hydrocolloid dressing applied."

Page 803: ~~—~~ "17..... Note: The culture must be obtained from the cleanest tissue possible and not from pus, slough, eschar, or necrotic tissue."

20....° Clinical alert: Note that the culture must come from the cleanest tissue possible and not from pus, slough, eschar, or necrotic material. Never collect exudate from the skin.

**Same information is presented in step 17 and again in step 20. Eliminate one of them.*

Page 827: ~~—~~ "The balloon port is marked with the amount of fluid required to fill the balloon."

**" The preferred balloon size may be labeled either 5 mL or 10 mL, and both are instilled with 10 mL of sterile water for inflation per manufacturer's instructions. Larger balloons (30 cc – 60 cc) are generally used to facilitate drainage or provide hemostasis when necessary, especially in the postoperative period. The balloon of the catheter usually sits at the base of the bladder, obstructing the internal urethral orifice.*

A fully inflated balloon allows the catheter tip to be located symmetrically. If a 5 mL balloon is inflated with more than 10 mL of water, irritation may occur unilaterally on the bladder wall from increased pressure of the balloon. The specified amount of inflation ensures a symmetrical shape and allows for the catheter to maintain position in the bladder while minimizing patient discomfort. Underfilling or overfilling may interfere with the correct positioning of the catheter tip, which may lead to irritation and trauma of the bladder wall." Urotoday.com

Page 833: "During insertion, the tip of the Coude catheter must be pointed anteriorly or it can cause damage the urethra"

** Add the word "to" after damage*

Page 834: "These catheters are larger in size to allow for larger amounts of fluid to flush."

**Add some more information in this sentence—"These catheters are larger in size to allow for irrigation of the bladder to help prevent the formation of blood clots and to flush them out."*

Page 847: "Depending on the type of system, the ostomy appliance can last from four to seven days, but the pouch must be changed if there is leaking, odor, excessive skin exposure, or itching or burning under the skin barrier."

**Explain a little better—changing the pouch doesn't exactly help with leaking, odor, skin exposure, itching, or burning. "Depending on the type of system, the ostomy appliance can last from four to seven days. The wafer will need to be changed if there is leaking, excessive skin exposure, itching or burning underneath the wafer."*

Page 849: "After the skin barrier is applied to the skin, the pouch is snapped to the ostomy barrier."

**Two different terms used for the same thing in one sentence makes it confusing. "Skin barrier, ostomy barrier and wafer are all referring to the same thing.? Keep the terms the same in the sentence above—not changing from skin barrier to ostomy barrier if you are meaning the same thing."*

Page 856: "Sample Documentation for Expected Findings A size 14F Foley catheter inserted per provider prescription. Indication: Prolonged urinary retention. Procedure and purpose of Foley catheter explained to patient. Patient denies allergies to iodine, orthopedic limitations, or previous genitourinary surgeries. Balloon inflated with 10 mL of sterile saline. *Change to sterile water. Patient verbalized no discomfort or pain with balloon inflation or during the procedure. Peri-care provided before and after procedure. Catheter tubing secured to right upper thigh with stat lock. Drainage bag attached, tubing coiled loosely with no kinks, bag is below bladder level on bed frame. Urine drained with procedure 375 mL. Urine is clear, amber in color, no sediment. Patient resting comfortably; instructed the patient to notify the nurse if develops any bladder pain, discomfort, or spasms. Patient verbalized understanding."

Sample Documentation for Unexpected Findings A size 14F Foley catheter inserted per provider prescription. Indication was *Change to "is" for oliguria with accurate output measurements required. Procedure and purpose of Foley catheter explained to patient. Patient denies allergies to iodine, orthopedic limitations, or previous genitourinary surgeries. As the balloon was being inflated with saline, *As balloon inflated with sterile water, patient began to report discomfort. Saline "Water" removed, catheter further advanced one inch and balloon reinflated with 10 mL of normal saline "sterile water". Patient denied discomfort after the catheter advancement. Catheter tubing secured to right upper thigh with stat lock. Drainage bag attached, tubing coiled loosely with no kinks, bag is below bladder level. Urine drained with procedure 100 mL. Urine drainage is dark amber, noticeable sediment in tubing, with foul odor. Patient resting comfortably, denies any bladder pain or discomfort. Instructed the patient to notify the nurse if develops any bladder pain, discomfort, or urinary spasms. Patient verbalized understanding. Notify the health care provider of urine assessment. Continue monitoring patient for any new or worsening symptoms such as change in mental status, fever, chills, or hematuria."

**Foley kits contain sterile water for inflation of balloons as saline can crystallize making balloon deflation difficult.*

Page 857: "....device to secure Foley catheter to leg, linen bag, wastebasket,

**Eliminate linen bag as not needed for skill*

Page 858: "4.....° Secure the wastebasket and linen cart/bag near the bed for disposal."

Page 859: "20. Place the top plastic tray on the sterile drape nearest to the patient. An alternate option is to leave the plastic tray on top of the box until after cleaning is complete."

**Would delete highlighted sentence as it is difficult to remove plastic tray with only one hand as nondominant hand cannot be used anymore at this point.*

Page 861: "..... Foley catheter to leg, linen bag, wastebasket, a

**Eliminate linen bag*

Page 861:- “#4.....Secure the wastebasket and linen cart/bag near the bed for disposal.”

Page 861:- “5. Position the patient supine and drape the patient with a bath blanket, exposing only the necessary area for patient privacy.”

**A female will need to be positioned with the legs bent and heels on the bed “either the lithotomy position or frog position” not strictly supine*

Page 862:- “21. Place the plastic top tray on the sterile drape nearest to the patient. An alternate option is to leave the plastic tray on top of the box until after cleaning is complete.”

**would delete highlighted sentence as it is difficult to remove plastic tray with only one hand as nondominant hand cannot be used anymore at this point.*

Page 862:- “24. With your sterile dominant hand, use the forceps to pick up a cotton ball. Cleanse the periurethral mucosa with the saturated cotton ball. Discard the cotton ball after use into the plastic bag, not crossing the sterile field. Repeat for a total of three times using a new cotton ball each time.”

**Not very clear cleaning instructions—Lippincott—clean the labium minus furthest from you using a downward stroke. Then discard the swab or cotton ball. Repeat for the labium minus closest to you. Use another antiseptic swab or solution-soaked cotton ball to clean the area between the labia minora.*

With your dominant hand, use an antiseptic swab or pick up a sterile antiseptic soaked cotton ball with plastic forceps to clean the labia minora furthest from you using a downward stroke (as shown below); then discard the swab or cotton ball. Repeat for the labia minora closest to you. Use another antiseptic swab or antiseptic soaked cotton ball to clean the area between the labia minora. 144. Society of Urologic Nurses and Associates. (2015). "Clinical practice guidelines: Adult female urethral catheterization" [Online]. Accessed September 2016 via the Web at <http://www.suna.org/sites/default/files/download/femaleCatheterization.pdf>

Page 863:- “26. Once urine is noted, continue inserting the catheter 1”-2”. Do not force the catheter.”

**Lippincott states 2-3” further.*

Page 864:- “1. Gather supplies: peri-care supplies, nonsterile gloves, 30 – 60 mL Luerlock syringe for sterile specimen, alcohol wipes/scrub hubs, two preprinted patient labels, clear biohazard bag for lab sample, urinary graduated cylinder, and 10-mL syringe.”

**Not sure of need for “30-60 mL Luerlock syringe” and “10-mL syringe”*

Page 864:- “1. Gather supplies: peri-care supplies, nonsterile gloves, 30 – 60 mL Luerlock syringe”

“3. Verify the order and assemble the supplies on a protective drape on the table: gloves, Luer-lock syringe”

“8. Attach the Luer-lock syringe to...”

**I think luer lock is technically 2 words not hyphenated. We’ve had several different foley catheter kits and the 3 we currently have all have slip tip syringes for inflation of the balloon and a slip tip syringe is required for obtaining a urine sample. Maybe eliminate identifying type of syringe completely?*

Page 864:- “1. Gather supplies: peri-care supplies...,urinary graduated cylinder,...”

**Not sure why you gather peri-care supplies or a urinary graduated cylinder as they are not ever used in the procedure of obtaining a urine specimen from a foley catheter.*

Page 866:- “2. Gather supplies: urinary graduated cylinder, gloves, 10-mL syringe,”

**Add in to check whether a slip tip syringe or a luer lock syringe is required for specimen port on foley catheter collection tubing.*

Page 866:- “4. Place peri-care supplies, chux, and syringe on the overbed table. Place the wastebasket near the bed and place the urinary graduate on the floor near the Foley bag:”

**Nursing Assistant textbook has urinary graduate placed on the floor on a barrier such as a paper towel*

Page 866: “9. Attach the 10-mL syringe into the balloon port and remove all the fluid from the balloon; while holding the plunger, detach the syringe.”

**I think it's good practice to empty the syringe and then reattach to ensure that the balloon is empty prior to removing it as it is possible more than 10 mL are in the balloon.?*

Page 868: “4. Place the hand sanitizer and other supplies for use during/after procedure off the table near the bed.”

**This should be “on” and not “off”*

Page 868: “6. Secure the wastebasket and linen cart/bag near the bed for disposal.”

**We didn't gather a “linen cart/bag” in step 1 and not sure it is needed.*

Page 858: “5. Position the patient supine and drape the patient with a bath blanket, exposing only the necessary area to maintain patient privacy” (Male foley catheter insertion)

Page 861: “5. Position the patient supine and drape the patient with a bath blanket, exposing only the necessary area for patient privacy.” (female foley catheter insertion)

Page 868: “9. Position the patient supine and uncover the patient, exposing the patient's groin, legs, and feet for positioning and sterile field (male = supine, legs extended; female = dorsal recumbent; may need assistance to position patient and help support legs).” (Straight catheterization for male and female)

**Would consider using the same verbiage for positioning male and female patient for foley catheter insertion and for straight catheter insertion. Confusing for students when different terminology is used. Difficult to insert a foley catheter in a female in a “supine position”*

Page 869: “16. Place the fenestrated drape over the patient's perineal area, keeping your gloves sterile by folding the corners of the sterile drape over the sterile gloves before approaching the patient.”

**Make the use of fenestrated drape optional as it is in foley catheter insertion male and female.*

Page 869: “17. Remove the sterile specimen container and remove the lid, if attached. Set the container on the sterile drape and invert the lid to maintain sterility. Position the container on the sterile drape to be within reach during the procedure.”

**Add to this step, “If a urine specimen is ordered,” A urine specimen isn't necessarily collected every time a straight catheterization is performed.*

Page 869: “° Female: Holding the labia apart with your nondominant/ nonsterile hand, use your dominant/sterile hand to hold the forceps and pick up a cotton ball soaked in antimicrobial solution and cleanse the urethra with one downward stroke each time, once on each side and then once down the center. Discard each cotton ball after use without crossing the sterile field. With the dominant sterile gloved hand, pick up the lubricated catheter about 4 inches from the end for stability. Hold the catheter loosely in your hand. Place the distal end in the receptacle.”

**Not actually cleansing the urethra. I would make these cleaning instructions the same as for the foley catheter female instructions. Would also eliminate the word “loosely” as am not sure of the purpose of holding it loosely.*

Page 870: “° Male: With your sterile dominant hand, use the forceps to pick up a cotton ball. Cleanse the glans penis with the antimicrobial cleanser using a circular motion from the center of the meatus outward to the base of the glans. Discard each cotton ball after use without crossing the sterile field. Continue to hold the penis perpendicular to the body or labia apart with your nondominant hand. With the dominant sterile gloved hand, pick up the lubricated catheter about 4 inches from the end for stability.”

**Eliminate “or labia apart” as we are cleaning the male anatomy in this section.*

Page 870: “With the dominant sterile gloved hand, pick up the lubricated catheter about 4 inches from the end for stability.”

**In the female version, it states to “Place the distal end in the receptacle” under step 24 but not for the male version in step 24.*

**Steps # 17, 27, 28, 29, 30, 33, 34, 38, 39, 40, 41, and 46 all are related to obtaining a urine specimen. Either add optional to all these steps or change the heading of this checklist to “21.14 CHECKLIST FOR STRAIGHT CATHETERIZATION—FEMALE/MALE AND OBTAINING URINE SPECIMEN*

Page-870: “27. When urine begins to drain out of the catheter, pinch the catheter with your thumb and index finger of your nondominant/nonsterile hand while continuing to hold the labia apart or penis perpendicular to the body.”

**In my mind, I can't visualize how you can pinch the catheter with your thumb and index finger of nondominant hand and still hold labia apart or penis perpendicular.*

Page-872: “6. Position the patient according to patient status: ° Assist the patient to the bathroom and have him/her sit on the toilet to be near the sink for ease of process

7. Empty the pouch depending on the type of the appliance and the location type of procedure: ° Remove the pouch and empty it into the toilet”

**If the patient is able to sit in the bathroom, it works better if they sit on a chair next to the toilet so the toilet is still available to empty the pouch into.*

Page-872: “9. Cleanse the stoma and surrounding skin with gauze and room temperature tap water; pat dry the skin.”

“11. Place the gauze pad over the stoma while you are preparing the new wafer and pouch.”

**Gauze pad is used in step 9 and step 11 but gauze is not listed when you gather supplies in step 1.*

Specify that gauze pad used in step 9 cleaning is not the gauze placed over stoma in step 11.

Page-873: “12. Trace the pattern onto the paper backing of the wafer and cut the wafer. No more than **1/8 inch** of skin around the stoma should be exposed for correct fit”

**Add “If a pattern is available, cut the new wafer prior to removing previous pouch and wafer as patient has no control over stoma output.”*

Personally experienced way too many disasters in changing colostomy appliances as sometimes 30 seconds is too long to be without appliance on.

**Sizing of wafer is noted as 1/8” here and on page 848 it's 2 mm. Would have either inches or mm in both places or metric and inches in both places. Confusing when measurements presented in two different units of measurement.*

PAGE-873: “18. Dispose of **old** supplies and wrappings.”

**Either eliminate highlighted word entirely or change to “used”*

Page-891: “8. Put on a clean glove and occlude the end of the connection tubing to check suction pressure”

**Several sources have you check the suction pressure after catheter is connected to suction tubing. Narrower diameter of suction catheter compared to suction tubing changes the amount of suction pressure generated. I tried it. Move step 7 and 8 later in procedure possibly by step 17*

Page-892: “11. Place a small amount of water-soluble lubricant on the sterile field, taking care to avoid touching the sterile field with the lubricant package.”

** Lubricant wasn't gathered in step 1 of gathering supplies. Step 17 has you lubricate with sterile saline and step 19 has you lubricate with water-soluble lubricant. “Water-based lubricant **or** normal saline can be used to lubricate the tip of the catheter, making insertion easier.” SSCOR Website Do you need to lubricate twice?*

Checking for “suction” in step 17 –makes sense to check the suction pressure here.

“Dip the catheter tip in the sterile solution to lubricate the outside of the catheter and to reduce tissue trauma during insertion.” Lippincott

Page-893: “24. Flush the catheter with saline. Assess the effectiveness of suctioning by listening to **“audible”** lung sounds and repeat, as needed, and according to the patient's tolerance. Wrap the suction catheter around your dominant hand between attempts.”

**Not sure if it's possible to place stethoscope into ears and auscultate lungs while maintaining sterility of suction catheter? Or should the word “audible” be added before lung sounds*

Page-893: “Patient complaining of not being able to cough up secretions. Order was obtained to suction via the nasopharyngeal route. Procedure explained to the patient. Vital signs obtained prior to procedure were heart rate 88 in regular rhythm, respiratory rate 28/minute, and O2 sat 88% on room air. Coarse rhonchi present over anterior upper airway. No cyanosis present. Patient tolerated procedure without difficulties. A small amount of clear, white, thick sputum was obtained. Post-procedure vital signs were heart rate 78 in regular rhythm, respiratory rate 18/minute, and O2 sat 94% on room air. Lung sounds clear and no cyanosis present.”

**Eliminate past tense and add in which nare, how many suction passes and amount of suction used.*

"Patient complaining of difficulty coughing up secretions. Order obtained for nasopharyngeal suctioning. Procedure explained to patient. Vital signs prior to procedure: heart rate 88 regular, respiratory rate 28/minute, O2 saturation 88% on room air. Coarse rhonchi present over anterior upper airway. No cyanosis. Patient suctioned through left nare x 1 at 120 mm Hg with small amount clear, white, thick sputum obtained. Post procedure vital signs: heart rate 78 regular, respiratory rate 18/minute, O2 saturation 94% room air. Lung sounds clear to auscultation and no cyanosis present."

Page-894: "Patient complaining of not being able to cough up secretions. Order was obtained to suction via the nasopharyngeal route. Procedure explained to the patient. Vital signs obtained prior to procedure were heart rate 88 in regular rhythm, respiratory rate 28/minute, and O2 sat 88% on room air. Coarse rhonchi present over anterior upper airway. No cyanosis. After first pass of suctioning, patient began coughing uncontrollably. Procedure was stopped and emergency assistance was requested from the respiratory therapist. Post-procedure vital signs were heart rate 78 in regular rhythm, respiratory rate 18/minute, and O2 sat 94% on room air. Coarse rhonchi continued to be present over anterior upper airway but no cyanosis present. Dr. Smith notified and a STAT order was received for a chest X-ray and to call with results."

**Eliminate past tense*

"Patient complaining of difficulty expectorating secretions. Order obtained for nasopharyngeal suctioning and procedure explained to patient. Vital signs prior to procedure: heart rate 88 and regular, respiratory rate 28/minute, and O2 sat 88% room air. Coarse rhonchi present over anterior upper airway. No cyanosis. After first suctioning pass, patient coughing uncontrollably. Procedure stopped and emergency assistance requested from respiratory therapist. Post procedure vital signs: heart rate 78 and regular, respiratory rate 18/minute and O2 sat 94% room air. Course rhonchi remain over anterior upper airway but no cyanosis present. Dr. Smith notified and State order for chest x-ray received. Dr. Smith to be called with results."

Page-896: "• Communication should be facilitated with the patient using writing when possible."

**Unclear to me—Supply patient with a means to communicate in writing or the nurse is to communicate in writing?*

Page-897: "1. Gather supplies: sterile gloves, **trach** suction kit, mask with face shield, gown, goggles, pulse oximetry, and bag valve device. It is helpful to request assistance from a second nurse if preoxygenating the patient"

**Write out the word "tracheostomy" instead of "trach"*

Page-897: "3. Verify that there are a backup tracheostomy and bag valve device available at the bedside."

**Add "tube" behind "backup tracheostomy" and add "obturator"*

Page-897: "4. Assess lung sounds, heart rate and rhythm, and pulse oximetry."

**Add "respiratory rate" in with items to assess.*

Page-897: "5. Raise the head of the bed to waist level."

**Don't think you want the head of the bed at waist level. "Raise bed to a comfortable working height"*

Page-897: "7. Perform hand hygiene. Don appropriate PPE (gown and mask)."

**Eliminate "(gown and mask)" or add goggles or face shield to the parenthesis*

Page-899: "Sample Documentation of Expected Findings Mucus present at entrance to tracheostomy tube. Hyperoxygenation provided for 30 seconds before and after suctioning using a bag valve mask with FiO2 100%. Patient's pulse oximetry remained 92-96% during suctioning. Moderate amount of thick, white mucus without odor ~~was~~ suctioned. Post procedure: HR 78, RR 18, O2 sat 96%, and lung sounds clear throughout all lobes. Patient tolerated the procedure without discomfort."

"Sample Documentation of Unexpected Findings Mucus present at entrance to tracheostomy tube. Hyperoxygenation provided for 30 seconds before and after suctioning using a bag valve mask with FiO2 100%. During the first suctioning pass, the ECG demonstrated bradycardia with HR dropping into the 50s. Suctioning ~~was~~ stopped. Trach tube ~~was~~ reattached to the mechanical ventilator and emergency assistance ~~was~~ requested from the respiratory therapist. Moderate amount of thick, white mucus without odor ~~was~~ suctioned. Post procedure, HR 78, RR 18, O2 sat 96% and lung sounds clear throughout all lobes."

**Remove past tense*

Page-900: "Tracheostomy care is provided on a routine basis to keep the tracheostomy tube's flange, inner cannula, and surrounding area clean to reduce the amount of bacteria entering the artificial airway and lungs."

**Add the word “dry” after “clean” “and to maintain skin integrity” after “lungs”*

Page 901: “Follow agency policy regarding clearing the inner cannula; it should be inspected at least twice daily and cleaned as needed.”

**Change “clearing” to “cleaning”*

Page 901: “PPE (i.e., mask, goggles, or face shield), “

**Add gown to list of PPE*

Page 901: “7. Remove and discard the trach dressing.”

**Write out the word tracheostomy*

Page 903: “31. Lower the bed to lowest the position.”

**Remove the second “the” in sentence.*

Page 906: “Outer cannula: The outer cannula placed by the provider through the tracheostomy hole and continuously remains in place.”

**Maybe change the word “hole” to “stoma”*

***Chapter 21 IV Therapy (pages 910-917) underwent significant revisions and incorporated previously peer-reviewed content from Open RN Advanced Skills.**

- 23.5 Checklist: Scrubbing the hub was updated to 15 seconds

Page 910: “However, there may be situations when IV pumps are not available and nurses administer primary fluids by gravity using drip tubing.”

**I would change this to “However, there may be situations or settings where IV pumps are not used, and nurses will administer fluids by gravity using gravity tubing.” Many OR’s and ER’s or outpatient settings do not use infusion pumps so it’s not the lack of availability that would make an IV be administered via gravity—it may be the setting.*

Page 910: “The provider will order primary fluids based on the patient’s fluid and electrolyte statuses.”

**Change “statuses” to “status”*

Because a patient’s fluid and electrolyte statuses are constantly changing

**I would change “statuses” to “status” here also*

“Status and statuses can both be used as the plural, depending on the context, but status is more common.”

Page 912: “Secondary IV administration sets are used to intermittently administer a secondary medication, such as an antibiotic, while the primary IV is also running”

**Change to “Secondary IV administration sets are used to intermittently administer a secondary medication, such as an antibiotic, while the primary IV may be temporarily stopped or also running.”*

Usually the primary IV stops infusing while the secondary infuses unless it contains medication that should not be stopped while secondary infuses.

Page 912: “Secondary IV tubing is shorter in length than primary tubing and is connected to a primary line via an access port or an IV pump.”

**Confusing to me—not sure about “or an IV pump.”. Isn’t it just connected to a primary line via the access port?*

Page 918: “Sample Documentation of Unexpected Findings Attempted to initiate IV infusion in right hand using existing 22 gauge IV catheter. The IV site was free from pain, redness, or signs of infiltration. It infused freely with the normal saline flush. IV fluids were connected to run the normal saline infusion at 200 mL/hr. The infusion was started, but immediate leaking around the infusion site was noted. Swelling was noted superior to the infusion site and the fluids were immediately stopped.”

**Eliminate past tense. “Attempted to initiate IV infusion in right hand with existing 22 gauge IV catheter. IV site free from pain, redness, or signs of infiltration. IV site flushed readily with normal saline. Normal Saline IV fluids connected at 200 mL/hour with immediate leaking around infusion site. Swelling noted superior to infusion site. Fluids stopped immediately.*

Page 919: ◦ questions

**First part of sentence missing—“Explain the procedure to the patient and ask if they have any questions.”*

Page-920: “21. Assess IV site patency according to agency policy. Purge a prefilled normal saline syringe of air. Attach the syringe onto **the the** saline lock cap. Undo the clamp on the extension tubing. Inject 3 to 5 mL of normal saline using a turbulent stop-start technique. If resistance is felt, do not force the flush and do not proceed with IV solution administration; follow up according to agency policy.”

**Eliminate one of the word “the”. Should you aspirate for blood return prior to flushing with saline? Gloves should be applied prior to assessing IV site in step 19 and before step 21 or aspirating and flushing with saline.*

Page-922: “4. Verify compatibility of the secondary IV solution with the other IV fluids the patient is **concurrently** receiving.”

**Change to currently*

Page-922: “◦ Explain the process to the patient.”

**Add “and ask if they have any questions” to align with other checklists.*

Page-923: “15. Compress and release the drip chamber, filling halfway”

**Can delete this step as drip chamber can be filled halfway with the back priming step.*

Page-923: “◦ Vigorously cleanse the **catheter tip** on the patient’s IV port with an alcohol pad/scrub hub (or the agency required cleansing agent) for at least five seconds and allow it to dry.”

**Confusing what “catheter tip” is referring to. Change instead to “Vigorously cleanse the y-port closest to the drip chamber with an alcohol pad/scrub hub (or the agency required cleansing agent).....*

Page-923: “Back priming is considered best practice and is performed using **an infusion pump** with primary fluids attached:”

**Back priming can also be completed via gravity. Add gravity in here.*

Page-923: “◦ For gravity: Set the roller clamp to achieve the appropriate number of drops per minute based on the provider order.”

**Clarify that “The roller clamp on the secondary tubing will be opened completely and the roller clamp on the primary tubing will be adjusted to deliver the prescribed rate.”*

Page-924: “IV catheter on the right hand was discontinued. IV catheter tip was intact. Site is free from redness, warmth, tenderness, or swelling. Gauze applied with pressure for one minute with no bleeding noted. Dressing applied to the site.”

**“IV catheter on right hand discontinued with catheter tip intact. Site free from redness, warmth, tenderness, or swelling. Gauze applied with pressure for one minute with no bleeding noted. Dressing applied to site.”*

“IV catheter on the right hand was discontinued. IV catheter tip was intact. Site free from redness, warmth, tenderness, or swelling. Gauze applied with pressure for one minute but bleeding was noted to continue around the gauze dressing. Ongoing pressure was held for five minutes until hemostasis was achieved.”

“IV catheter on right hand discontinued with IV catheter tip intact. Site free from redness, warmth, tenderness, or swelling. Gauze applied with pressure for one minute. Bleeding noted to continue around gauze dressing. Pressure held for five minutes and hemostasis achieved. Dressing applied to site.”

Page-925: “5. Loosen the edges of the transparent dressing and tape in the direction of the IV site”

**Perform hand hygiene and apply gloves” prior to this step of loosening the dressing.*

Page-925: “11. Assist the patient to a comfortable position, ask if they have any questions, and thank them for their time.

**Add in a step to remove gloves and perform hand hygiene.*

Page-949: “The optimal size needle would be 21G 1 1/2inch with injection into the **buttock.”**

**Change the word “buttock” to “ventrogluteal”*

Page 953: “The items that you should have available include the replacement trach, Ambu bag, and suctioning kit.”

**Change “trach” to “tracheostomy tube”*

“C – Provide oxygen via the **trach** collar if warranted,”

**Change to tracheostomy collar*

Page 957: 4. Perform hand hygiene using plenty of lather and friction for at least 15 seconds:
6. Wash for a minimum of 20 seconds

**Checklist for Hand Washing—Step 4 states 15 seconds and step 6 20 seconds.*

Page 958: “Checklist for Vital Signs”

**It seems like it would make more sense to move this checklist to the Blood pressure chapter. Put it after the blood pressure checklist on page 101*

Page 958: “4. Ask the patient their name and date of birth for the first identifier and verify wristband while the patient is stating information. Then use one of the following for the second identifier: ◦ Scan wristband ◦ Compare name/DOB to MAR ◦ Ask staff to verify patient (LTC setting) ◦ Compare picture on MAR to patient

**Change it to match the beginning of other checklists 2. Perform safety steps: ◦ Perform hand hygiene. ◦ Check the room for transmission-based precautions. ◦ Introduce yourself, your role, the purpose of your visit, and an estimate of the time it will take. ◦ Confirm patient ID using two patient identifiers (e.g., name and date of birth). ◦ Explain the process to the patient. ◦ Be organized and systematic. ◦ Use appropriate listening and questioning skills. ◦ Listen and attend to patient cues.*

Page 961: Vaseline Gauze Occlusive gauze Woven gauze impregnated May be used as a nonadherent
with petroleum **depression** or to keep wounds moist May be used as a nonadherent
moist

**Should “depression” be “dressing”?*

Page 964: Under “Instruction for Use” of “Aquacel Ag”

“Cleanse wound. Apply to surface of lightly pack into wound. Cover with secondary dressing”

**“Cleanse wound. Apply to surface of wound or lightly pack into wound. Cover with secondary dressing”*