

## Module Practice Questions

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## Module 1 Practice Questions

1. Neurotoxins can be used for multiple areas on the face. What is the average number of units for conservative treatment of the forehead, glabella, and crow's feet?
  - A. 10-15
  - B. 15-20
  - C. 30-35
  - D. 50-70
  
2. In treatment of the male face with a neurotoxin, how does the practitioner keep from "feminizing" the face?
  - A. Inject low on the forehead
  - B. Inject high on the forehead
  - C. Only inject the glabella
  - D. One generally does not have to worry about feminizing the male face with neurotoxin or making them heavy, only with filler.
  - E. All of the above are correct
  
3. In treatment of the female face with a neurotoxin, how does the practitioner keep from making the patient "heavy browed" (more than one may be correct).
  - A. Inject low on the forehead
  - B. Inject high on the forehead
  - C. Inject the glabella and crow's feet in the first session and delay treating the forehead
  - D. Start with a very conservative dose
  - E. All of the above are correct

4. If a patient, at 5 days post treatment, calls concerned about a “dropped brow,” how does the practitioner assess the issue and correct it if needed?
  - A. Have the patient draw a picture of what they see on their face. Then mark on the picture of where the neurotoxin should have been injected
  - B. Have the patient point to what they see wrong on their face. Then inject more neurotoxin in that area.
  - C. Have them come back in 2 weeks to reassess the concern, potentially to change dose and placement for next treatment
  - D. Have the patient animate their face then place more neurotoxin higher or lower in the brow to correct it on the day of follow up
  
5. When front desk staff are answering questions regarding price of the neurotoxin, they should get right to the point and answer the question in detail.
  - A. True
  - B. False
  
6. Mark the following that are true (more than one answer may be correct):
  - A. You should inject the muscle not the wrinkle
  - B. Patients need more neurotoxin if they have multiple wrinkle lines versus only one in the forehead
  - C. If the patient is only concerned about one area, then you do not have to assess the entire face
  - D. A conservative treatment would be injecting 10-15 units of Botox in each area of the female face
  - E. A conservative treatment would be injecting 20-25 units of Botox in each area of the female face
  - F. Men typically need more neurotoxin in each area than women
  
7. Typical conservative dosing in a female includes (more than one answer may be correct):

- A. 10 units of Botox in the forehead
  - B. 20 units of Botox in the forehead
  - C. 2 units of Botox in each quadrant lips for vertical lip lines
  - D. 10-15 units of Botox in the DAO
  - E. 3-5 units of Botox in the chin
8. Patients will typically know to ask for Botox in the following areas (more than one answer may be correct):
- A. Forehead
  - B. Glabella
  - C. Crow's feet
  - D. Vertical lip lines
  - E. Chin
  - F. Corners of the mouth
9. Patients commonly know the difference between using neurotoxin and filler to treat the "marionette lines" and vertical lip lines and will therefore ask for one or the other.
- A. True
  - B. False
10. When using a 30G ½ inch insulin syringe and a 2cc saline dilution of Botox, each "notch (5, 10, 15)" on the syringe equals how many units:
- A. 2.5
  - B. 5
  - C. 10

D. 15

11. An injector should be careful when injecting the following areas with neurotoxin as treating that area can commonly affect another area and potentially give an untoward effect (more than one answer may be correct):

- A. Forehead
- B. Glabella
- C. Crow's feet
- D. Bunny lines
- E. Vertical lip lines
- F. Chin
- G. DAO
- H. Neck

12. If a patient comes in for a follow-up at two weeks and has a right-sided "spock/evil brow," the proper treatment is to inject 1-2 units of Botox into the muscle above the brow causing the wrinkle.

- A. True
- B. False

13. Mark the following that are true (more than one answer may be correct):

- A. It is best to follow-up with a first-time patient of Botox at 1 week for adjustments
- B. It is best to follow-up with a first-time patient of Botox at 2 weeks for adjustments
- C. Neurotoxin may start to work quicker on one side, making the result slightly asymmetric but should resolve before follow-up time
- D. A headache after treatment with Botox is a sign of having injected too much Botox
- E. It is reasonable to add a little more Botox to an asymmetric area at 5 days post-treatment

14. Patients may be worried about the safety of Botox. Mark the following statements that are true and should be used to educate the patient about the proven safety of Botox (more than one answer may be correct):
- A. Botox is the purified protein molecule of Botulism toxin
  - B. Botox is injected into the muscle and not systemically absorbed
  - C. One would need 100-300 times a normal amount injected to cause Botulism disease
  - D. Sterile saline negates any possibility of Botox lethal activity
15. If a patient smiles and squints and you see “crow’s feet” lines into the cheek, one should start conservative but can “creep” into the upper cheek with future injection sessions to better treat the lines.
- A. True
  - B. False
16. Mark the following that are true (more than one answer may be correct):
- A. The risk in drawing up neurotoxin for more than one area into one syringe is under- or over-treating dosing an area while talking to the patient
  - B. The risk of drawing up neurotoxin for more than one area or 3-4 injections is dulling the needle and hurting the patient
  - C. Typically, patients will be just as disappointed with under-treatment as with over-treatment, so it is very important to get the dose right in the first session for risk of losing the patient
  - D. With rare exception, when using a 30G needle, one should only do 5-7 injections with each needle
  - E. Even if a patient has cleaned his/her skin in the restroom just prior to injection, you should still sterilize the skin with medical toner and/or alcohol pad before injecting.
17. If a male patient comes in with deep forehead lines at rest, how many successive sessions of neurotoxin treatment will he need to significantly reduce his lines?
- A. 1-2

- B. 2-6
- C. You may never see significant reduction so you should use filler instead of neurotoxin

18. Mark the following that are true (more than one answer may be correct):

- A. An 18-year-old female does not need Botox if no lines are present yet
- B. A 28-year-old female may only need 5-10 units of Botox in each of the forehead and glabella
- C. Older patients generally need significantly more Botox than younger patients
- D. Men typically need more Botox than women
- E. An older female patient with numerous lines in her forehead will need more Botox than a young male patient with only one "paper-cut" line in his forehead
- F. Older patients with multiple deep lines may need more than Botox alone to make them happy

19. You should tell the patient the following for after treatment. Mark the following that are true (more than one answer may be correct):

- A. Headaches after treatment are generally mild and nothing to worry about
- B. We used to tell patients not to lie down, exercise, or drink alcohol for 4-8 hours after treatment but now we know that makes no difference in result
- C. Asymmetry can be fixed in a follow-up
- D. Call our office if your forehead is uneven at 5-7 days for us to immediately fix
- E. You can basically forget you got the treatment and go on with your normal daily activities
- F. You need to periodically flex the muscles in the areas treated to make the Botox work better and quicker

## Answer Key

1) C

2) D

3) B, C, D

4) C

5) B

6) A, D, F

7) A, C, E

8) A, B, C

9) B

10) A

11) A, B, C, E, F, G

12) A

13) B, C

14) A, B, C

15) A

16) A, B, E

17) B

18) B, D, F

19) A, B, C, E



## Module 2 Practice Questions

1. Treating all upper face areas in the same treatment with neurotoxins in the male population should be avoided due to risk of feminizing the face?
  - A. True
  - B. False
2. Where should the neurotoxin be injected in the face to avoid giving the patient a “heavy” brow?
  - A. Directly below the brow line and above the eyelid
  - B. In the hairline only
  - C. On the corners of the eye at the end of the eyebrow line
  - D. Superomedial in the forehead and medial in the glabella
  - E. None of the above
3. Where should the neurotoxin be injected in the face to give the patient a “brow lifted” look?
  - A. In the Glabella only
  - B. In the Periocular area
  - C. In the Lateral Upper Forehead
  - D. In the medial glabella and crow’s feet in the initial treatment
  - E. None of the above
4. What types of “lines” can neurotoxins not treat?
  - A. Vertical lip
  - B. Crow’s Feet
  - C. “Necklace” (horizontal neck) lines

- D. The 11's (glabella)
5. How do practitioners keep documentation of the areas of the face treated with neurotoxins?
- A. On a word document
  - B. On the internet
  - C. On their personal computer
  - D. On a treatment sheet
6. The following muscles affect the brow (more than one answer may be correct):
- A. Frontalis
  - B. Corrugator
  - C. Procerus
  - D. Orbicularis oculi
  - E. Nasalis
7. Mark the following that are true (more than one answer may be correct):
- A. The procerus causes horizontal lines in the glabella
  - B. The corrugator causes vertical lines in the glabella
  - C. One should always inject the "middle glabella" shot to further treat the procerus
  - D. It rarely matters where on the length of the corrugator you inject as long as you hit the belly of the muscle
  - E. One sometimes has to inject on the bridge of the nose in addition to the side of the nose to properly treat the Bunny Lines.
8. When is it ok to only treat select areas in the upper face versus all three (forehead, glabella, crow's feet) (more than one answer may be correct)?

- A. When there is no movement or muscle strength in one area
  - B. When there is little elevation of the brow by the lateral frontalis
  - C. When the patient has some evidence of brow hooding
  - D. When the patient has upper eyelid ptosis
  - E. You should always treat all three upper face areas in each treatment
  - F. All of the above are true
9. Mark the following that are true (more than one answer may be correct):
- A. If a patient has movement lines in the forehead and glabella and you only treat one area, the patient may see a worsening appearance of the lines in the untreated area
  - B. It is commonly accepted to treat anticipated muscle strength asymmetries in the first session with asymmetric (different dosing in each side) doses
  - C. It is better to start treatments with neurotoxin before the patient sees lines to stay conservative
  - D. Some patients may be too old to see results with neurotoxin
  - E. Proper placement and dosing of Botox will typically help with under eye lines/wrinkles
10. Patients will ask “when should I get Botox again.” You should tell them (more than one answer may be correct):
- A. Always every three months
  - B. When Botox has worn off so you can see their movement and properly dose them again
  - C. When patients barely start to see any movement beyond what they saw at full effect
  - D. Less often if they need to “spread out treatments” due to cost as they will likely get the same result
  - E. We may need to use more Botox to make it last longer, but not change the result

- F. To the cost-conscious patient, we may need to do Botox more often and with more units in the beginning but might be able to decrease dosing and increase length of time between sessions as we continue to treat and see result
  - G. If cost is an issue, a young patient with no visible lines can still benefit from prevention with slightly less often treatments
11. With proper dosing of Botox and number of treatment sessions, an experienced injector can always get crow's feet lines to go away.
- A. True
  - B. False

#### Answer Key

- 1) B
- 2) D
- 3) D
- 4) C
- 5) D
- 6) A, B, C, D
- 7) A, B, E
- 8) A, B, C, D
- 9) A, C
- 10) C, F, G
- 11) B

## Module 3 Practice Questions

1. When injecting neurotoxin into the Orbicularis Oris for vertical lip lines, you must be aware of the negatively affecting the following muscles (more than one answer may be correct):
  - A. Zygomaticus Minor
  - B. Zygomaticus Major
  - C. Levator Labii Superioris
  - D. Masseter
  - E. Depressor anguli oris
  - F. Platysma
2. To avoid negatively affecting other muscles of the perioral area, when treating vertical lip lines, mark the following that are true (more than one answer may be correct):
  - A. One should start with medial injections into the Orbicularis Oris
  - B. One should start with injections close to the vermilion border of the lip into the Orbicularis Oris
  - C. Use 4-8 units of Botox per injection
  - D. Always treat both the upper lip and lower lip in the first session
3. Mark the following that are true (more than one answer may be correct):
  - A. Vertical lip lines usually need filler, but only occasionally need neurotoxin
  - B. If treating with neurotoxin for vertical lip lines in a new patient, it is reasonable to treat with both conservative neurotoxin and filler in the first visit
  - C. Vertical lip lines almost always need neurotoxin treatment

- D. The patient may need or want more than just neurotoxin to make them happy, but neurotoxin alone may be the only treatment necessary
  - E. Once a patient's movement is reduced and visible dynamic lines go away after several sessions of Botox, one can maintain the results with conservative periodic filler injections and/or laser resurfacing without continuing Botox treatments
  - F. In our current society, patients are surprisingly knowledgeable about the cause of vertical lip lines and usually know that they need Botox in addition to filler to help their concerns
  - G. Even in expert hands, there is a risk of changing the smile of a patient being treated for vertical lip lines and therefore causing them to be unhappy with results
4. The proper treatment of a "gummy smile" includes (more than one answer may be correct):
- A. Injecting Botox more superior off of the vermillion border (closer to the columella of the nose)
  - B. Injecting slightly more lateral than for typical vertical lip line treatment
  - C. Using a higher dose per injection (3-6 units of Botox) than for typical vertical lip line treatment
  - D. Usually only having to treat over 1-2 sessions and then maintain with filler
  - E. Purposefully but ever so slightly reducing the patient's ability to elevate the upper lip upon smiling motion
5. When treating the chin wrinkling for "cobble stoning," mark the following that are true (more than one answer may be correct):
- A. The chin wrinkling is treated with 2-4 injections of Botox at 1-3 units each
  - B. Starting medial with your injections will reduce the possibility of affecting other muscles
  - C. The chin is the easiest area in the perioral area to inject, but injections can negatively affect other muscles and make the patient unhappy
  - D. Injections into the mentalis can affect the Depressor Anguli Oris
  - E. Injections into the chin (mentalis) have very little chance of affecting the smile and are therefore easy to perform

6. When treating the “frown” or “down-turning of the corners of the mouth,” mark the following that are true (more than one answer may be correct):
- A. Patients usually think they need only filler in the Marionette lines, so the injector will need to educate them about the potential need for neurotoxin injection to properly treat their concern
  - B. In some cases, neurotoxin alone may reduce the patient’s concern
  - C. Patients are usually knowledgeable about treatments coming in so they are generally easy to tell what treatments they will need without confusion
  - D. A patient may need neurotoxin, filler and skin tightening to make them happy
  - E. A non-invasive specialist has a good chance of making almost every patient over 40 happy with injections of neurotoxin and filler without surgery
  - F. It is common for a good practitioner to need to discuss possible surgical options with a patient before recommending injections
  - G. You want to inject the Depressor Anguli Oris and not the Depressor Labii Inferioris
  - H. To properly inject the muscle affecting the down-turning of the mouth, one should inject close inferior (close to the mandible) and lateral to avoid negatively affecting other muscles
  - I. The muscle affecting the down-turning of the mouth typically needs an average of 5 units of Botox or more on each side for full effect
  - J. The Platysma muscle may need to be treated to fully correct the “frown”
7. Mark the following that are true (more than one answer may be correct):
- A. When treating the entire perioral area, it is sometimes reasonable to inject all areas in the first treatment
  - B. When treating the entire perioral area, it is sometimes reasonable to inject only certain areas in the first treatment
  - C. To ensure that you don’t overdose the number of units per injection, it is safest to only put the number of units of neurotoxin for one injection into one syringe versus having multiple injections’ worth of units in one syringe

- D. If the patient has both medial and lateral vertical lip lines (upper or lower lip), you should start with slightly more lateral injections to ensure proper injection of the Orbicularis Oris muscle
  - E. As opposed to the upper face, the treatment of the perioral areas with neurotoxin is better for treatment of visible lines and wrinkles versus preventing them from occurring
8. Mark the following that are true (more than one answer may be correct):
- A. Injection of the lower lip lines can negatively affect the smile as much as injection of the upper lip lines
  - B. If a patient sees some reduction in movement of the areas treated but not “freezing” of the movement, it is reasonable to add a few more units at a 2-week follow-up
  - C. If a patient sees some reduction in movement of the upper lip lines but not “freezing” of the movement, it is reasonable to add a slightly more lateral injection into the Orbicularis Oris muscle at a 2-week follow-up
  - D. If a patient still has some movement of the area(s) treated at a 2-week follow-up, you should always re-inject with more neurotoxin to make sure you properly weaken the muscle for results
  - E. The best way to suggest treatment of the perioral areas with neurotoxin is to watch the patient talk during consultation and show them the movements that they make because patients usually want you to suggest other ways to help them besides what they may have brought up as a concern
9. Mark the following that are true (more than one answer may be correct):
- A. Patients generally need multiple sessions of neurotoxin injections, usually over the course of 6-18 months to really see the results from neurotoxin alone
  - B. You may have a difficult time encouraging the patient to wait on asking for filler until the effects of the neurotoxin treatments really show their results
  - C. When treating the mentalis for chin wrinkling, if two medial shots are not enough, then you generally should do two more lateral shots before increasing the dose of the medial shots since there is little risk of affecting other muscles
  - D. In most injection practices, the perioral neurotoxin injections are more commonly done because of the injectors suggestion after education of the patient versus the patient asking for neurotoxin injections in those areas



E. Typical dosing of each of the individual areas in the perioral region consists of injections of 1-2 units of Botox per “side”

10. Mark the following that are true (more than one answer may be correct):

- A. When treating the DAO, if the patient comes back and is asymmetric, then you should and can easily fix that with additional unit injections on the asymmetric side
- B. To fix asymmetry after DAO injection, sometimes you can add 2 more units of Botox to the side that shows more teeth
- C. Patients are typically as happy with the results of injections of neurotoxin in the perioral area as they are with injections of the upper face
- D. In some patients, it is reasonable to inject filler in a follow-up visit from DAO injections, even if you know they will need to continue the DAO neurotoxin injections
- E. It is typical to misjudge the “corners of the mouth” as needing only filler injections

### Answer Key

1) A, B, C, E

2) A, B

3) C, D, G

4) A, B, E

5) A, B, D

6) A, B, D, G, H, J

7) A, B, C

8) A, B, C, E

9) A, B, D, E

10) B, D, E

## Module 4 Practice Questions

1. When is a patient not a good candidate for a neurotoxin to the neck?
  - A. If the patient has had a previous facelift
  - B. If the skin is too lax
  - C. Both A and B
  - D. Neither A or B
2. What are the other options available to patients that are not good candidates? (Choose all that apply)
  - A. Filler
  - B. Coolsculpting
  - C. Facelift
  - D. Radiofrequency
  - E. Facial Exercises
3. What is “flexed” “fired” in the neck that the neurotoxin will address?
  - A. Sternocleidomastoid
  - B. Platysma

4. When is a patient *not* a good candidate for a neurotoxin to the neck without other additional treatments (more than one answer may be correct)?
- A. If the patient has had a previous facelift
  - B. If the skin is too lax
  - C. If the patient has significant neck and submental fat
  - D. If a patient has only horizontal “necklace” lines
  - E. If the patient has mild to moderate vertical laxity bands or “pinches” of skin
  - F. If you cannot see the platysma “firing” or strengthening
  - G. The patient has down-turning of the mouth with frowning
  - H. A younger patient who has “text neck” lines
  - I. A patient who has had a face/neck lift with division of all neck band muscle (platysmal myotomy) to prevent the muscle from getting stronger again
5. What are the other options available to patients that are not a good candidate? (more than one answer may be correct)
- A. Filler
  - B. Coolsculpting
  - C. Facelift
  - D. Radiofrequency skin tightening
  - E. Laser skin resurfacing
  - F. Facial Exercises
6. What is “flexed” or “fired” in the neck that the neurotoxin will address (more than one answer may be correct)?
- A. Sternocleidomastoid
  - B. Mentalis

- C. Platysma
- D. Sternohyoid
- E. Geniohyoid

7. Mark the following that are true (more than one answer may be correct):

- A. A patient may have multiple concerns in the neck that warrants a full evaluation of the need for several different types of treatments
- B. Almost every patient in their 40s-50s is a good candidate for neurotoxin treatment of the neck
- C. Botox treatment in the neck can reduce the “pull” of the muscle on the skin and by releasing that muscle, the skin can “tighten” or “retract” back slightly to give a mild to moderate skin tightening effect along the jawline
- D. Botox in the neck has a standard/similar dosing amount in most patients
- E. Botox in the neck can be used for prevention of skin laxity
- F. You should not inject neurotoxin in the neck of a professional body builder who needs their superficial neck muscle (platysma) to support their neck
- G. Botox treatment of vertical neck bands may help the “jowls” on the jawline

8. The perfect candidate for neurotoxin treatment of the neck (more than one answer may be correct):

- A. Anyone with skin laxity in their neck
- B. Someone who shows the muscle movement and vertical bands of the platysma
- C. Has a relatively “tight” jawline but is just starting to show a slight amount of vertical laxity in their neck
- D. Has very thick neck skin with moderate to significant fullness of the neck
- E. Has the mild anterior neck “11s”
- F. Has no neck skin laxity but you see them “firing” their neck bands as they talk

9. Mark the following that are true (more than one answer may be correct):

- A. The treatment of the neck with Botox typically takes more units “per area” than the areas of the upper face
- B. Multiple treatments are usually necessary for the patient to notice the result and “believe” that Botox will help their concern
- C. Botox will not really help prevent laxity in the neck
- D. If a patient has a facelift, they may or may not need to continue to receive Botox in the neck
- E. If a young patient starts getting Botox in the neck too early, they will eventually become resistant and still develop neck laxity
- F. Botox will not give a result in the neck with less than 8-10 units in each band

10. Mark the following that are true (more than one answer may be correct):

- A. Botox works in the neck by reducing the strength of the injected muscle, therefore reducing the “pulling forward” motion of the skin which causes skin laxity
- B. If one injects too much Botox and weakens the muscle too much, there can be an opposite effect of causing skin laxity
- C. Since the anterior platysma muscle is so thick, there is minimal chance of injecting Botox into deeper structures and therefore harming the patient
- D. A patient may not be seen as a candidate for Botox treatment in the neck until they have a fat removing/reducing procedure and/or surgical neck lift and then the muscle banding becomes apparent
- E. Patients of many different age groups may benefit from neurotoxin injections in the neck

11. Proper injection of Botox into the neck includes (more than one answer may be correct):

- A. Dosage of 2-3 units per injection site
- B. Dosage of 5-7 units per injection site
- C. Injection spacing of 2-3 inches (5-8cm)

- D. Injection spacing of 1 inch (2-3cm)
  - E. Using your fingers to stretch out the skin to inject
  - F. Pinching the skin and muscle band to inject
  - G. Very conservative dosing in the first few treatments to avoid negatively affecting other areas
12. Proper injection of Botox into the neck includes (more than one answer may be correct):
- A. Injection into the deep dermis
  - B. Injection into the superficial muscle (platysma)
  - C. Injection into all of the muscles you see flexing in the neck
  - D. Injection into the skin and muscle
  - E. Injection into multiple sites along one vertical muscle band
13. Mark the following that are true (more than one answer may be correct):
- A. Each band may require a different amount of neurotoxin
  - B. You may only inject anterior bands in a patient
  - C. You may only inject lateral bands in a patient
  - D. You should always inject all bands present
  - E. You may inject certain bands in one treatment and different bands in a following treatment
  - F. You should always inject the same amount of neurotoxin on each side
  - G. Patients commonly need more neurotoxin in the first few visits
  - H. If you cannot fully visualize the band, then you should just “blanket” inject the entire area where you know the muscle exists to treat the vertical and horizontal lines
  - I. It is reasonable to inject a vertical muscle band just under the jawline, almost right on the mandible

- J. One should stay at least 3 inches (7-8cm) away from the clavicle when injecting to avoid complications
  - K. It is common to vary the number of Botox units per injection site in neck bands
  - L. Patients may occasionally have temporary odd sensations while swallowing or vocalizing, but as long as they do not have functional problems or voice problems, they can continue to receive Botox injections in the neck
14. The following are ways to get a patient to show you the vertical bands and evaluate if they are a good candidate for neurotoxin injections (more than one answer may be correct):
- A. Ask them to “show their bottom teeth”
  - B. Watch them as they talk with you during consultation
  - C. Ask them if they think they strain when exercising
  - D. Ask them to turn their head quickly from left to right
  - E. Ask them to look straight and move their face forward and back
  - F. Ask them to frown their mouth

#### Answer Key

- 1) D
- 2) B, C, D
- 3) B
- 4) B, C, D, F, H, I
- 5) B, C, D, E
- 6) C

- 7) A, C, E, G
- 8) B, C, E, F
- 9) A, B, D
- 10) A, D, E
- 11) A, D, F
- 12) B, E
- 13) A, B, C, E, G, I, L
- 14) A, B, C, F

## Module 5 Practice Questions

1. Neurotoxins for migraines can be therapeutic in a cosmetic dose if the migraine originates in which area of the head?
  - A. Scalp
  - B. Back
  - C. Neck
  - D. Elbow
  
2. Neurotoxins will only temporarily relieve TMJ pain for a few weeks
  - A. True
  - B. False
  
3. How much Botox is recommended for migraine relief?



- A. Until the patient tells you to stop
  - B. At least 100 units
  - C. A cosmetic dose to start
  - D. At least 200 vials
4. Teeth grinding/pain/headache are all symptoms of:
- A. Neurotoxin pain
  - B. TMJ Pain
  - C. Platysmal pain
  - D. Normal post injection site pain
5. Neurotoxins for tension or migraine headaches can be therapeutic in a “cosmetically pleasing” (conservative, less than on-label) dose if the headache originates in which of the following area(s) (more than one answer may be correct)?
- A. Scalp
  - B. Back
  - C. Neck
  - D. Temple
  - E. Behind the eyes
  - F. Deep anterior neck muscles
  - G. Forehead
  - H. Jaw (masseter)
6. Pain from TMJ can be evident (more than one answer may be correct):
- A. Because of jaw clenching

- B. Because of teeth grinding
  - C. Because of platysma muscle flexing
  - D. Because of significant strain when talking or concentrating
  - E. Because of visual problems warranting the need of reading glasses
  - F. Because of more significant pathology that requires specialty evaluation with a dentist and/or oral surgeon
7. Assume you are *not* a neurologist. Even though you may be justified in treating the patient with neurotoxin and may eventually be right to do so, you should refer a migraine patient to a neurologist if (more than one answer may be correct):
- A. The patient has a significant aura before the migraine
  - B. The patient knows that the headaches originate from the head, neck, and back
  - C. The patient has only headaches in the forehead and temple that are mild without any other symptoms
  - D. Personal history or family history of hypertension, hypercholesterolemia, blood clots, stroke, atherosclerosis, neurological disorder, or any other significant heart, circulation, or neurological symptoms/history
  - E. The patient has significant headache history, having seen multiple physicians, had multiple tests and has tried multiple medications
  - F. If the headaches put them in bed
  - G. If the headaches significantly affect their life
  - H. If they want to evaluate possible insurance coverage
  - I. If they just want to pay out of pocket, don't want to go through insurance approval process and have mild to moderate headaches
8. Assume you are *not* a dentist or oral surgeon. Even though you may be justified in treating the patient with neurotoxin and may eventually be right to do so, you should refer a "TMJ" patient to a dentist or oral surgeon if (more than one answer may be correct):
- A. They have noticed or heard popping, clicking, locking (or something similar) of the jaw

- B. You should always at least suggest referral to a dentist to make a night-time bruxism (bite block) guard
  - C. If the patient has masseter hypertrophy from excessive weightlifting
  - D. If a female patient is only concerned about “masculinizing” the jaw
  - E. Referral is less commonly necessary for TMJ than it is for migraines
9. If you, as an injector, are only offering neurotoxin treatments without any other treatment options, you can feel comfortable treating a patient (more than one answer may be correct):
- A. Who has simple tension or migraine headaches who wants to “give Botox a try” if you have taken a full history
  - B. If a neurologist is treating a migraine patient and the patient comes to you for Botox touch-ups due to a cosmetically less than pleasing result, for you to treat other areas or touch-up areas treated such as the forehead
  - C. The patient is on multiple medications for migraines and is not currently under the care of a neurologist but wants to try Botox
  - D. Without notifying them that Botox may be covered by their insurance
  - E. If a patient has masseter hypertrophy from grinding their teeth or straining during exercise
  - F. If you have a patient who gets Botox in the more common areas and you suggest evaluating their jaw muscles
10. Mark the following that are true (more than one answer may be correct):
- A. If you are not currently treating patients with tension/migraine headaches or TMJ symptoms and/or are a novice injector, you will be surprised at how many patients you can feel comfortable helping with Botox alone without any other treatments
  - B. A “cosmetically pleasing” dose will help most of the patients suffering with migraines who come to see you
  - C. Forehead, glabella and crow’s feet dosing for off-label (not the full dosing strategy of a neurologist) usually varies from dosing for lines and wrinkles

- D. Injection placement of neurotoxin for the treatment of migraines follows the placement for lines/wrinkles
  - E. If patients are receiving Botox for migraines, they should not receive facial fillers until their symptoms resolve with successive Botox treatments
  - F. Sometimes a patient's co-pay for insurance coverage is as much as your charge for Botox in the areas to be treated
  - G. Patients with migraines rarely have the need for Botox in the masseter so that is why we categorize patients as "migraine patients" or "TMJ patients" but not one in the same
11. Mark the following that are true regarding treatment of TMJ (more than one answer may be correct):
- A. Patients commonly see results with just one Botox treatment of masseter hypertrophy
  - B. Patients may need several treatments to see results
  - C. Patients may need to be re-treated (additional full dosing) as early as 4-8 weeks in the beginning of treatments
  - D. Botox in the masseter last longer than in most muscles
  - E. In a cosmetic practice, as long as the need to refer to a dentist/oral surgeon has been discussed, postponed, or deemed unnecessary, treatment dosing can be the same for TMJ symptoms as for cosmetic shaping and reduction of the masseter to "de-masculinize" the jaw
  - F. The placement of Botox is usually different for the treatment of TMJ symptoms versus cosmetic jaw hypertrophy
  - G. After palpating the masseter mound, you should have them stop clenching and relax before you inject to reduce pain with injection
  - H. Patients' symptoms of TMJ are usually separate from symptoms of tension headaches and migraines; therefore, the two symptom classes are evaluated separately
12. Regarding Botox dosing for migraines, which of the following is/are correct (more than one answer may be correct):
- A. True on-label dosing is between 100-200 units for all areas treated in total

- B. You should start with a conservative 10-15 units per area when treating the forehead, glabella and temple
  - C. You should start with 20 units per area when treating the forehead, glabella and temple so as not to undertreat the patient
  - D. You should only inject the areas that move enough to cause creases in the skin
  - E. It is reasonable to inject into the hairline and hair bulk (scalp and temple) if the patient points to that area when you ask where the headaches originate
  - F. Patients typically see improvement with conservative dosing
  - G. If a conservative dose gives some result, you can titrate up the dose per injection and/or increase the number of injections until you see better effect but somewhat of a cosmetic “freeze” and see what the patient likes and where the happy medium is
  - H. If you under-dose the patient’s temple area, they may get a worsened “rebound” headache
  - I. You should educate the patient about the difference between a cosmetic (conservative) dosing strategy and the on-label dosing and allow them to choose
  - J. Dosing frequency can be either when the patient sees muscle movement and line formation coming back or when they start to get headaches again
13. Regarding Botox dosing for TMJ and cosmetic masseter hypertrophy, which of the following is/are correct (more than one answer may be correct):
- A. The typical dose for TMJ treatments on-label is 20-50 units of Botox per side
  - B. A simple “cosmetic” dose such as 5-10 units of Botox on each side is generally very beneficial to both the patient with TMJ symptoms and the patient who feels like their jaw muscle is too enlarged
  - C. When injecting, the number of injections into the masseter can be the same for both TMJ and cosmetic masseter hypertrophy
  - D. Patients may need several treatments but can be pleased with just one treatment with proper dosing
  - E. Botox can result in a slimming of the jaw and mild elasticity improvement and skin tightening effect due to retraction of the skin on the posterior jawline

- F. It is reasonable to add more Botox to a patient's masseter at a two-week follow-up depending on their muscle movement
- G. Treatment will help with "squaring of the jaw" and maintain the "upside down triangle of youth"
- H. Masseter hypertrophy in a female can add to the appearance of "jowls"
- I. Men typically need more Botox in the masseter than women, but you rarely have to worry about "de-masculinizing" the jaw in a man with proper dosing
- J. Female patients who can benefit from Botox for jaw shaping are one of the most common patients you as the injector will need to know to suggest treatment, although patient awareness of the possibility of treatment is becoming more common

14. Mark the following that are true (more than one answer may be correct):

- A. Botox can reduce the strength and severity of headaches
- B. Botox can reduce the frequency of headaches
- C. Patients undergoing Botox treatments for headaches may never be "headache" free regardless of how long they receive successive treatments
- D. It is possible that a patient's migraines never come back with continued Botox treatments
- E. Many patients will be unhappy with results from Botox treatment of migraines but it is worth the risk for the possibility of helping them
- F. Patients often will often report that Botox has changed their lives
- G. It is relatively easy to "over-treat" the masseter with conservative Botox dosing and number of treatments so an injector must be careful not to atrophy the masseter and cause both functional problems and cosmetic skin laxity

Answer Key

1) A

- 2) B
- 3) C
- 4) B
- 5) A, D, E, G, H
- 6) A, B, D, F
- 7) A, B, D, E, F, G, H,
- 8) A, B, E
- 9) A, B, E, F
- 10) A, B, D, F
- 11) A, B, C, E, G
- 12) A, B, E, F, G, I, J
- 13) A, B, C, D, E, F, G, H, I, J
- 14) A, B, C, D, F

## Module 6 Practice Questions

1. During the initial consultation process with a patient in evaluation for filler, the practitioner should be able to show what a filler both can and can't do.
  - A. True
  - B. False

2. What are some indications of possible body dysmorphic disorder?
  - A. comparing body part to others' appearance
  - B. repetitive looking in a mirror
  - C. avoiding mirrors
  - D. skin picking
  - E. excessive grooming
  - F. None of the above
  - G. All of the above
  
3. How does the provider determine where the “problem” of the aging face is coming from?
  - A. Asking the patient to show you in a mirror
  - B. Asking the patient how old they are
  - C. Asking the patient to lift their eyebrows
  - D. Asking the patient which filler they want
  
4. What are some contraindications for facial fillers?
  - A. Expected weight change
  - B. Blood thinners
  - C. Future laser procedures
  - D. All of the above
  
5. Some but not all Facial Fillers can be dissolved.
  - A. True



- B. False
6. Most patients need at least 4 syringes of HA filler to start.
- A. True
  - B. False
7. An area of the face to place filler to correct the Nasolabial fold is:
- A. The upper lip
  - B. The cheeks
  - C. The mandible
  - D. The nasolabial fold
  - E. Both A and C
  - F. Both B and D
8. Mark the following that are indications of possible Body Dysmorphic Disorder (more than one answer may be correct):
- A. Comparing one's body to another's appearance
  - B. Excessive checking in the mirror
  - C. Request for multiple treatments for a condition
  - D. Avoidance of mirrors
  - E. Skin picking
  - F. Excessive grooming
  - G. Request for a named procedure

9. What is/are the best way(s) for a practitioner to determine a patient's current concern and its potential cause (more than one answer may be correct)?
- A. Ask the patient what their goals are for their skin are
  - B. Immediately tell the patient what you see when they ask you
  - C. Ask the patient what they looked like 15 years ago
  - D. Ask the patient what they might do in the mirror to improve their concern
  - E. Ask the patient what bothers them that they would like to change
  - F. Ask the patient what they would like to see improve
  - G. Hold a mirror for the patient and ask them to show you their concern in the mirror
  - H. Have the patient hold the mirror while you examine them and show them the cause
10. What are potential relative or strict contraindications for injecting filler (more than one answer may be correct):
- A. Expected weight change
  - B. Expected surgery
  - C. Need for surgery but patient wanting to see if filler works first
  - D. Minor blood thinners that patient can temporarily discontinue
  - E. Expected water-targeting laser resurfacing procedure in near future
  - F. Patient asking for a specific brand of filler
11. All commonly used facial fillers in today's market can be dissolved.
- A. True
  - B. False
12. Mark the following potential areas to assess and inject with filler to correct nasolabial folds (more than one answer may be correct):

- A. The upper lip
- B. The cheeks
- C. The nasolabial fold
- D. The nasojugal fold
- E. The temple
- F. The chin
- G. The preauricular mandibular area

13. Mark the following that are true (more than one answer may be correct):

- A. It is important to always assess a patient from a lateral (profile) view
- B. Patients generally are not able to help an injector determine the cause of their concern because they do not understand filler
- C. You should ask a patient many questions because, more often than not, a patient knows what is causing their concern even though they may not know how it can be improved
- D. A patient should bring a picture of themselves from 15-25 years ago to determine what they used to look like to see if they are a good candidate for filler
- E. Many patients will ask for filler and may be a candidate but should still be educated about possible surgical options even if it means referring the patient out before treating with filler
- F. It is reasonable to tell a patient that proper filler treatments can make them appear 5-10 years younger

14. Mark the following that are true regarding Hinderer's Lines and general facial proportions (more than one answer may be correct):

- A. One line is from the medial canthus, through the alar crease and to the oral commissure
- B. One line is from the lateral canthus through the oral commissure
- C. One line is from the tragus to the alar crease or through the lower part of the nasal bridge



- D. The oblong oval created by the transection of all of the lines indicates the main oval vector of the cheek
- E. These lines can help one determine where the upper outer pole/rounded edge of the cheek should be anatomically
- F. The “golden ratio” or “Phi” is a proportionality ratio of 3.14:1, and can be used to determine the proportions of the facial anatomy
- G. These lines can help one determine the peak of the cheek
- H. These lines utilize a dissimilar way of looking at the face than using the Marquardt Face, but are still beneficial
- I. These lines can help one determine where to place filler
- J. Analyzing these lines can replace using the older E-Line method

15. Mark the following that are true (more than one answer may be correct):

- A. Hyaluronic Acid fillers are simply reversible and safe in all injectors hands
- B. If an injector does not have many different fillers, he/she can still properly treat most patients with one of the newer “catch-all” Hyaluronic Fillers
- C. In a cosmetic practice with a well-trained injector, it is common to have more patients receiving filler treatments by suggestion of the injector and staff than by patients themselves asking for filler
- D. Although the more “semi-permanent” fillers are known to have potential serious complications and require expert injection, the newer Hyaluronic Fillers have very little if any risk of similar complications and are safe and effective in most if not all injectors’ hands
- E. It is generally true that filler injection is just as easy to learn as neurotoxin injection
- F. An injector should find a happy medium between starting with the more “basic” areas to inject while gaining experience and being comfortable assessing the need for filler in all facial areas
- G. There have been serious, disfiguring, and permanent complications reported with all fillers on the market

16. Mark the following areas of the face that are common potential injection sites (more than one area may be correct):

- A. Central forehead fat
- B. Middle forehead fat
- C. Lateral temporal fat
- D. Superior orbital fat
- E. Lateral orbital fat
- F. SOOF
- G. Orbicularis Oculi muscle
- H. Inferior orbital (infraorbital) fat
- I. Superficial medial cheek fat
- J. Middle cheek fat
- K. Malar fat
- L. Deep cheek fat
- M. Nasolabial fat
- N. Buccal fat
- O. Premental fat

17. Mark the following that are true (more than one answer may be correct):

- A. Since hyaluronic acid filler is considered temporary, it is generally not necessary to determine the order of treatments if other treatments such as laser or surgery are to be received
- B. All lasers can potentially target filler if enough therapeutic energy is utilized, regardless of where filler is placed
- C. Different Hyaluronic Acid fillers require different time frames to see the full “filling” result and may vary in each patient

- D. Some lasers are not safe to perform within 1-2 months after certain filler treatments
- E. During consultation, one of the first things an injector should say is if they can help the patient to ease their worries
- F. Patients generally only want a practitioner to discuss how they can help correct their concerns, therefore it is purposeless to discuss positive features of their face that do not need correction
- G. If a patient comes to your office requesting filler treatment, you will generally upset them if you discuss possible surgical options even if you do not offer them, therefore you should only discuss with them what you can offer

#### Answer Key

- 1) A
- 2) G
- 3) A
- 4) D
- 5) A
- 6) B
- 7) F
- 8) A, B, D, E, F
- 9) A, D, F, G, H
- 10) A, B, C, E
- 11) B
- 12) B, C, D, E, G
- 13) A, C, E, F

14) B, C, D, E, G, I

15) C, F, G

16) C, E, F, H, I, J, K, L, M, O

17) C, D, E

## Module 7 Practice Questions

1. For proper cheek volume restoration and lifting with filler, potential areas to inject with a high G prime filler are (more than one answer may be correct):
  - A. Midline brow
  - B. Superficial to the deep fat pads
  - C. In the deep fat pads
  - D. Pre-periosteal or on bone
  - E. In the nasolabial folds
  - F. Just superior to the eyebrow
2. Regarding the “G prime” characteristic of Hyaluronic Acid fillers, mark all that are correct (more than one answer may be correct):
  - A. G prime describes how deep to place filler
  - B. G prime describes how the filler is able to retain its shape when a force is applied
  - C. G prime describes how much water the filler will absorb
  - D. Knowing a filler’s G prime can help an injector determine in what tissue depth filler can safely be placed

- E. G prime can change in a single type of filler depending on how superficial or deep it is applied
  - F. Not all fillers on the market have “G prime” as a characteristic
  - G. When injecting a small amount of filler into mid-depth tissue, G prime becomes less important
3. So you don’t have to leave 1/10 of a cc of filler left over if you don’t use it all in the cheek (so you don’t have to waste time putting it in later), the following areas are potentially good areas to “put the last little bit of filler (Voluma) from the syringe in (depending on the type of filler)” (more than one answer maybe correct):
- A. Eyebrow
  - B. Earlobe
  - C. Nasal bridge
  - D. On jawline (mandible)
  - E. Chin
4. Mark the following that are true (more than one answer may be correct):
- A. Nasolabial folds are almost always due to fat loss in the nasolabial crease
  - B. Patients tend to first lose fat in the deeper versus superficial facial fat pads
  - C. Loss of the deep medial facial fat pad and lateral temporal and cheek fat pads causes a horizontal shift of the cheek vector and worsening of the nasolabial folds
  - D. There are times when you should not inject filler into the nasolabial folds even though the patient points to that area as a concern as they may be unhappy if you inject that area
  - E. It is not uncommon for a patient to need more filler and in multiple areas to give them their desired result
5. Regarding examining of the patient and expectation setting, mark the following that are true (more than one answer may be correct):
- A. Finger palpation of the cheek can determine if filler will make the patient happy



- B. Finger palpation of the cheek can determine how much of the face will be lifted
  - C. An injector can reasonably determine the number of syringes of filler the patient will need for various levels of correction by simply palpating the cheek with one or more fingers
  - D. In the majority of cases, a knowledgeable injector can confidently recommend a number of syringes that will make a patient happy by using finger palpation to show the patient what can be achieved
  - E. A confident injector should always prepare a patient for the need of one more syringe of filler in a 4 week follow-up
6. In determining what results a patient expects to see, mark the following that are true (more than one answer may be correct):
- A. If a patient uses one finger to “lift the face”, you can feel confident that proper placement of a high G prime filler in the cheek will provide expected results
  - B. If a patient uses two fingers to “lift the face”, you may need to recommend more filler in the cheek and possibly filler in other areas with different fillers
  - C. If a patient needs multiple syringes of filler in several areas of the face, it is reasonable to use several syringes of the same filler in those areas to stay consistent with the G prime and water affinity used
  - D. If a patient uses several fingers to “lift the face” and you do not offer skin tightening procedures, you may risk under treating the patient with filler alone
  - E. If a patient uses multiple fingers and/or in different locations to “lift the face” then filler alone will likely not make the patient completely happy
  - F. Observing a patient using a hand “to lift the face” is a good surgical sign of the need for a facelift
  - G. Patients generally do not need filler again after a facelift
7. Regarding placement of filler, mark the following that are true (more than one answer may be correct):
- A. Because high G prime (thicker) fillers, like Voluma, are injected deep in the cheek, just on top of bone, there is more variability in “millimeters and angles” of injection placement

- B. Some patients will need filler injection in the “free floating” cheek (not on bone) and can be successfully injected with a “tissue bulking” filler
  - C. When fully assessing a patient’s face, the need for eyebrow shaping and waxing should be evaluated
  - D. The appearance of a “heavy brow” may be caused by improper eyebrow shaping and waxing
  - E. The Phi ratio can be used to assess virtually all areas and structures of the face
  - F. The Tyndall effect is very rare with a high G prime filler
  - G. Due to possible expansion depending on water-affinity, it is sometimes reasonable to underfill a treatment area by as much as 10-20%
  - H. Water-affinity is the main characteristic of Hyaluronic Acid fillers that should be considered when determining when to under-fill an area or fill to full correction
  - I. It is usually reasonable to start with less filler than you recommend if a patient is concerned with cost, but may need to come back and get more filler
  - J. A skilled injector can generally improve a patient’s concern with their nasolabial folds regardless of smiling movements because filler can replace the volume loss
8. During consultation, an injector should evaluate the following before recommending treatment with filler (more than one answer may be correct):
- A. History of previous neurotoxin and filler treatment
  - B. Surgical history
  - C. Has the patient been happy with filler treatments in the past if they have received them
  - D. Cosmetic surgical history, especially body surgery, from 5 years ago or more does not need to be evaluated
  - E. How does the patient heal from wounds/scars
  - F. How thick are their skin and tissue structures
  - G. Is the patient interested in maintaining and able to afford filler treatments on a regular/yearly basis

- H. Is the patient happy with what you have shown them in a mirror about what you can do with filler
  - I. The possibility of Body Dysmorphia Disorder even though you are not recommending surgery
  - J. After full assessment and planning, and since the changes made by filler injections are generally subtle with reasonable number of syringes used, it is reasonable for even an expert injector to always feel concerned about his/her ability to make the patient happy just before starting to inject
9. Male patients may be concerned that filler can “feminize” the face. Mark all of the following that are true regarding assessing, educating and treating the male patient (more than one answer may be correct):
- A. Male patients commonly need cheek fat pad volume replacement
  - B. Male patients can be treated with filler but should receive less than females
  - C. Male patients should not get filler in the lips or corners of the mouth
  - D. Male patients can have the same general areas addressed and treated as females
  - E. Male patients typically need more filler in the medial cheek than females
  - F. Male patients typically should not receive filler in the superolateral cheek
10. If a male patient wants to look more youthful and you determine that proper filler placement will help them achieve their goals, the following comments can ease their worries about receiving filler (more than one answer may be correct):
- A. If a male patient has any concern about filler “feminizing the face” you should simply choose to not treat them
  - B. You should point out the masculine features of their face such as a large forehead, manly (larger) nose, strong jawline, beard etc. and tell them that a little filler will not change all of that but could really help them
  - C. You could start conservative, reasonably address one area and see how the patient responds
  - D. Even if a male patient asks for it, you should not put filler in his lip

- E. Filler last longer in men since they do not need as much volume, therefore they will not have to do it as often

11. The patient should tell you where they see volume loss?

- A. True
- B. False

12. What is the Marquardt Face?

- A. The *Marquardt* Face identifies facial characteristics that are universally perceived as beautiful.
- B. The *Marquardt* Face is a thin sharp face shape
- C. The *Marquardt* Face was used in early plastic surgery to teach students where the Glabella lines were located.
- D. The *Marquardt* Face should never be discussed with patients.

13. In the cheeks, where do practitioners mostly place filler?

- A. In the lateral brow
- B. On top of the fat pads
- C. In the deep fat pads
- D. On the bone
- E. Both A and C are correct
- F. Both C and D are correct

14. When explaining the face as a mattress, what is the “sheet” a metaphor for?

- A. The muscle
- B. The fat pads

- C. The skin
- D. The bone

15. What does G Prime refer to?

- A. It describes how the filler is able to retain its shape when a force is applied.
- B. It is related to how deep in the tissue the filler is placed
- C. It is what you call a specific type of bruising that occurs when filler is done incorrectly
- D. It describes the brand of filler used

16. It's always better to over fill a patient then under fill them.

- A. True
- B. False

### Answer Key

- 1) C, D, E
- 2) B, D, F
- 3) A, B, C, D, E
- 4) B, C, E
- 5) A, B, C, D, E
- 6) A, B, D, E, F
- 7) C, D, E, G, H
- 8) A, B, C, E, F, G, H, I

9) A, D

10) B, C

11) A

12) A

13) F

14) C

15) A

16) B

## Module 8 Practice Questions

1. What makes a patient a good candidate for Tear Trough (TT) injection?

- A. Good skin
- B. Simple volume loss
- C. Muscle laxity
- D. Both A and B are correct
- E. Both A and C are correct

2. If the patient has allergies, they are usually still a candidate for TT filler.

- A. True
- B. False

3. Due to the availability of more appropriate fillers, Juvederm should generally not be used in the TT area.
  - A. True
  - B. False
  
4. Mark the following patient characteristics (under the eye) and concerns that may make one a good candidate for filler injections in the TT (more than one answer may be correct):
  - A. Good skin elasticity and tightness of lower eyelid
  - B. Puffiness from fluid
  - C. Simple volume loss and hollowing
  - D. Dark circles from tissue shadowing
  - E. Dark circles from vascularity or pigment
  - F. Orbicularis Oculi muscle laxity
  - G. Loss of under eye deep fat pad thickness
  - H. Fat pad buldge/herniation
  - I. Allergies leading to concerns under the eyes
  
5. The following are reasons for further evaluation, potentially by another specialist, before injecting filler into the TT (more than one may be correct):
  - A. Fluctuation in under eye concerns during the day or seasons
  - B. Controlled benign hypertension
  - C. Allergies
  - D. Skin laxity under the eyes

- E. Fat bulges under the eyes
  - F. Pigmented areas under the eyes
  - G. Increased vascularity under the eyes
  - H. Fat pad shrinkage under the eye
  - I. “hollowing” under the eye
  - J. Potential upcoming significant weight change
6. With the advance of fillers in recent years, a well-trained injector is very selective in choosing a filler to inject under the eyes. There are many fillers on the market and experts now deem some fillers to be significantly better for use under the eyes, so much so that using other fillers would be considered wrong and not worth the risks inherent to that filler. Mark the following fillers or filler characteristics that would be best to use in the TT (more than one answer may be correct):
- A. Voluma
  - B. Vollure
  - C. Volbella
  - D. Juvederm
  - E. Restylane
  - F. Radiesse
  - G. Sculptra
  - H. Artefil
  - I. Belafil
  - J. High water-affinity
7. Mark the following that are true (more than one answer may be correct):
- A. If you are only treating a patient’s TT, it is very likely to not use an entire syringe of filler, therefore keeping it for a “touch-up”.



- B. The TT is a simple area to treat
  - C. Some common patient concerns under the eye are not treatable with filler even though the patient asks for filler
  - D. Patients often will still need TT filler after Blepharoplasty
  - E. There are cosmetic conditions/concerns under the eye are not considered the TT deformity
  - F. If a patient has a “crease” under the eye or below the lower eyelid, they have a TT deformity
8. Regarding examining the patient for allergies, mark all of the following that are true (more than one answer may be correct):
- A. A patient with fluid under the eyes may have allergies
  - B. A patient may have a mild allergy to something they eat or come into contact with and the only symptom is fluid swelling, edema, or puffiness under the eyes
  - C. If a patient has significant allergic fluid under the eyes, but the amount of puffiness is consistent and unchanging, it is reasonable to inject filler in to the resulting crease
  - D. If a patient’s puffiness or fluid under their eyes fluctuates, an injector should inject them on a day when the fluid is minimal
  - E. A patient with allergic under-eye symptoms may never be a good candidate for filler under the eyes
9. When examining a patient for a TT deformity, fluid under the eye can be diagnosed by the following exams and observations (more than one answer may be correct):
- A. Simply observing the patient move the area
  - B. Asking the patient to smile and squint
  - C. Asking the patient if the area ever changes or fluctuates
  - D. Observing a fluctuating bulge under the eye

- E. Observing a bulge under the eye that doesn't move or retract with movement
  - F. Observing an improvement in the under-eye area with certain movements
  - G. Asking the patient if the area changes throughout the day or seasons in the way it appears
10. When suggesting to the patient the possibility of the cause of the prominence under the eye is caused by an allergy, patients are often surprised to hear that and claim that they do not have allergies.
- A. True
  - B. False
11. If you determine that a patient may have an allergy, for you to feel comfortable and appropriate in injecting filler under the eyes, the following must occur (more than one answer may be correct):
- A. The patient has seen an allergist who agrees with the theory that it is possible that the only symptom of an allergy is swelling under the eyes
  - B. If the patient has been properly tested and diagnosed with an allergy to something like broccoli, and can avoid the allergen and/or treated and controlled with allergy medication
  - C. The patient's symptom of puffiness under the eyes have greatly improved and maintain that consistent improvement for months
  - D. You and the patient determine that the patient's symptoms are minimal and unchanging
  - E. The patient now has mild to moderate TT volume loss and/or under-eye crease still present
12. Mark the following that are true (more than one answer may be correct):
- A. The movement test to visualize retraction of fluid can also show retraction of a fat pad, tightening of skin and muscle (thereby improving the look of the TT) and therefore help to rule out surgical need.
  - B. When suggesting to the patient the possibility of the cause of the prominence under the eye is caused by an allergy, patients are often surprised to hear that and claim that they do not have allergies.

- C. Patients in their 20s rarely have a true TT deformity and therefore do not benefit from “preventative filler”
  - D. If a patient needs a surgical lower lid blepharoplasty, you can make them worse by injecting filler under the eyes if they want to wait several years on surgery
  - E. A patient of darker skin (skin type 4-5) with “dark circles” may benefit from filler under their eyes even if they need pigment correcting treatments
  - F. If a patient comes into your practice with both skin laxity and volume loss under their eyes, they may not be happy with filler until they have a skin tightening procedure, but then be a great candidate for volume replacement with filler
13. Regarding the different types of tissue fillers, mark the following that are true (more than one answer may be correct):
- A. A tissue filler like Sculptra that works by causing tissue thickening resulting from an inflammatory reaction is a successful option for treatment of the TT if the patient does not want to have to receive filler very often
  - B. Vollure is a filler that can be injected both deep (on the bone) and superficial (sub-dermal) in the TT
  - C. Because Voluma is “thick” with a very high G prime and moderate cohesivity, it is difficult to move/massage/manipulate, as opposed to Vollure that can be injected and “pushed” into the desired area
  - D. Newer Restylane products, as opposed to previous versions, due to a new process are thick fillers reduce the possibility of the Tyndal Effect under the eyes
  - E. The majority of patients will require 1cc of an HA filler under each eye to properly address their concerns
  - F. The TT is one of the most common areas for bruising and therefore one should strongly encourage a patient not to receive filler within 5 days of an important event
  - G. A minimal water-affinity Hyaluronic Acid filler is the filler of choice for the TT

14. "Dark circles" can be caused by (more than one answer may be correct):

- A. Volume loss
- B. Hollowing
- C. Shadowing
- D. Fat herniation
- E. Normal vascularity
- F. Hypervascularity
- G. Significant skin laxity
- H. Pigment
- I. Allergies

#### Answer Key

1) D

2) B

3) A

4) A, C, D, G

5) A, C, D, E, F, G, J

6) A, B, C

7) A, C, D

8) A, B, E

9) A, B, C, D, F, G

- 10) A
- 11) A, B, C, D, E
- 12) B, D, E, F
- 13) B, C, F, G
- 14) A, B, C, E, F, H, I

## Module 9 Practice Questions

1. Regarding the lips, mark the following that are true (more than one answer may be correct):
  - A. It is reasonable to inject a thin filler into more superficial “papercut” lines if patients want a quick fix and do not want to undergo other treatments
  - B. The lips are commonly treated by injectors, both novice and advanced, because the lips are rarely incorrectly injected.
  - C. Although the lips can be over-injected with too much filler, if a Hyaluronic Acid filler is used, it can simply be enzymatically dissolved without long-lasting damage to the structures of the lips
  - D. Injectors should focus on anatomical volume restoration versus filling the “tube” of the lips
  - E. There is a difference between volume and definition when injecting filler in the lips
2. Mark the following that are true (more than one answer may be correct):
  - A. With the exception of an intra-oral nerve block, there is really nothing one can do to decrease the pain of injections in the lips because they are just sensitive
  - B. To properly inject filler in lips, one only has to determine how much volume the “tube” of the lips has lost with age
  - C. The “U” (philtral columns) of the “Cupid’s Bow” is in the shape of a straight vertical “H”

- D. The lips are the one area of the face in which a difference of millimeters in depth and placement of injection is least important
  - E. Many patients have a vertical septum in the midline of the upper lip. This is a patient concern that can be resolved by placing filler directly in the midline of the lip to inflate the tubercle.
  - F. All of the above are true
  - G. None of the above are true
3. When planning for injection of the lip, mark the following that are true (more than one answer may be correct):
- A. The angle of injection for heightening the philtral column is approximately 10 degrees medial of a direct vertical line
  - B. It is not necessary to evaluate patients from profile/side view if they have a small upper lip and simply want a larger upper lip
  - C. An injector should communicate with the patient the difference in result coming from injecting the vermillion border versus the wet-dry border versus the actual pulp of the lip
  - D. Some patients who want fuller lips will benefit from proper filler injection only in the corners of the lips and oral commissure without injecting the pulp of the lip
  - E. Facial size, cheek size/volume, chin and jaw length, and nose size should all be considered in determining how much filler a patient needs to look proportionate
  - F. Not all patients can achieve the lip volume and structure they desire
  - G. The lip is a common area that patients point out in a picture of someone else who has a lip structure that they can never achieve
4. Regarding the Eline and Phi ratios of the lower face and lips, the following are true (more than one answer may be correct)
- A. When looking at the upper and lower lip relationship, the upper lip should be 1-2 mm anterior (in front of) the lower lip
  - B. Neither the upper nor lower lip should touch the Eline of the face
  - C. The Phi ratio applies to the size of the lower versus upper lip

- D. The Phi ratio applies to the distance from columella to upper lip compared to the distance of the lower lip to the end of the chin
  - E. The Eline can be utilized to help determine how much volume of filler to inject into the upper and lower lips
5. The following will negatively change the Eline when examining the existing proportions of the lips and lower face (more than one answer may be correct):
- A. Short nose length
  - B. Elongated nose length
  - C. Short chin
  - D. Elongated chin
  - E. Too prominent upper lip
  - F. Too prominent lower lip
  - G. Too prominent upper and lower lip
6. Mark the following anatomical areas/structures that are possible injections sites when addressing the lips (more than one answer may be correct):
- A. "Cupid's Bow"
  - B. Philtral Columns
  - C. Tubercles
  - D. Columella
  - E. Vermillion Border
  - F. Alar crease
  - G. Wet-Dry Border
  - H. Lip Pulp

7. Filler can potentially address which of the following concerning the lips (more than one answer may be correct):
- A. Volume
  - B. Shape
  - C. Appearance of hydration
  - D. Vertical lip lines
  - E. Pursing strength
  - F. Inversion vs eversion of the lip's "roll"
  - G. Oral commissure orientation (up-turning, down-turning, horizontal)
8. Which of the following concerns is commonly requested by patients to have treated with filler that may need another/additional type of treatment (more than one answer may be correct):
- A. Volume restoration
  - B. Vertical lip lines
  - C. Down-turning of the corners of the mouth
  - D. Gummy smile
9. Mark the following that are true (more than one answer may be correct):
- A. Anatomically, there are two tubercles of the upper lip and two tubercles of the lower lip.
  - B. As patients age, their lips may appear to thin because of inversion ("rolling inwards") of the corners of the upper lip, and the result from proper filler placement can be shown to the patient by using one finger to pull up slightly on the skin superior to the oral commissure
  - C. If a patient requests filler for a fuller upper lip, an injector should always discuss the potential need for adding filler to the lower lip during the first treatment or in a follow-up
  - D. As patients age, one potential cause of their unhappiness with the appearance of their lips is elongation of the philtrum which makes it significantly more difficult to treat their lips with filler



- E. If a patient is receiving Botox for treating vertical lip lines, an injector should wait to see if the Botox changes the size or shape of the lips before injecting filler

10. Mark the following that are true (more than one answer may be correct):

- A. Some patients have unseen septations inside of the lips that make them very difficult to evenly and smoothly fill
- B. It is acceptable to use a thinner, less tissue-bulking filler in the lips in the first treatment of a patient and then add more in a follow-up appointment so as not to overfill them, as long as you educate the patient of a conservative approach and prepare the patient for the financial side of needing another syringe of filler, even though a “thicker” filler might have been less costly if you had known they would be happy with more volume.
- C. If a patient wants to be conservative in the first treatment and needs two syringes (2ccs) of a thinner filler like Vollure, they may only need one syringe of a thicker filler like Juvederm in the next session
- D. It is reasonable to inject filler in a patient who asks you to “make their lips bigger” when you do not feel they will look proportionate, since the patient asks for it and will sign a consent and pay for it
- E. Just like in knowing when to treat the cheeks in patients with concerns of nasolabial folds, one should know when to suggest injecting the lips with filler in an older patient who wants to look reasonably more youthful
- F. Patients in their seventies generally have such thinning of the lips that filler will not make them happy

11. The lower lip should be 1.6x to the length of the upper lip.

- A. True
- B. False

12. Why is it important to understand the limitations of filler to be used in the lips?

- A. You can give the patient an unnatural appearance
- B. The patient may not be satisfied with the end result

- C. So the least amount of filler can be used in the patient
  - D. All of the above
13. All of these fillers can be used in the lips except:
- A. Vollure
  - B. Voluma
  - C. Volbella
  - D. Juvederm
14. What anesthesia can be used for lip injections?
- A. Ice
  - B. Alcohol
  - C. Cold water
  - D. Dental block
  - E. Both A and D
  - F. Both A and B
15. It's important to remember that the practitioner is a tube filler of the lips.
- A. True
  - B. False

### Answer Key

1) D, E

- 2) G
- 3) A, C, D, E, F, G
- 4) B, C, D, E
- 5) A, B, C, D, E, F, G
- 6) A, B, C, E, G, H
- 7) A, B, C, D, F
- 8) B, C, D
- 9) B, C, D, E
- 10) A, B, C, E
- 11) A
- 12) D
- 13) B
- 14) E
- 15) B

## Module 10 Practice Questions

1. It is advised that a patient should want to have some nasolabial fold to act as a defining line between the cheek and perioral area.
  - A. True
  - B. False

2. What is the “Tyndall Effect”?
  - A. This occurs when too large of a needle is used for injection of a hyaluronic acid (HA) filler
  - B. This is bluish hue that is visible within the skin caused by too superficial placement of (HA) filler
  - C. This term is used to define an unhappy patient
  - D. This is the red/purple hue that occurs in the skin from too much HA filler
  
3. What is the suggested HA filler to be used in the nasal radix?
  - A. A filler that won't expand much
  - B. A filler with high water affinity
  
4. How does the practitioner avoid nasal tip necrosis when injecting HA into the nasal region?
  - A. Know the anatomy
  - B. Advise the patient on what complications to look for
  - C. Use a vessel viewer
  - D. Aspiration with injection
  - E. All of the above
  
5. Consider the E-line in profile prior to injection.
  - A. True
  - B. False
  
6. Mark the following that are true (more than one answer may be correct):
  - A. It is always reasonable to inject the nasolabial folds when the patient has them as a concern

- B. Volume loss in the cheek is commonly the cause of concerns of nasolabial folds
  - C. Fallen cheek height is commonly the cause of concerns of nasolabial folds
  - D. Since the nasolabial area is a relatively basic and easier area to inject, the risk of injecting the area and obtaining an undesired result is very low in a patient who complains of nasolabial folds
  - E. All patients should have some level of nasolabial folds which is an anatomical divider of the cheek from the perioral area and lips
  - F. You should wait to re-inject filler when most if not all of the previously injected filler is gone
7. So you don't have to leave 1/10 of a cc of filler left over if you don't use it all in one area (so you don't have to waste time putting it in later), the following areas are potentially good areas to "put the last little bit of filler from the syringe in (depending on the type of filler)" (more than one answer maybe correct):
- A. Eyebrow
  - B. Earlobe
  - C. Nasal bridge
  - D. On jawline (mandible)
  - E. Chin
8. What is the "Tyndall Effect"?
- A. This occurs when too large of a needle is used for injection of a hyaluronic acid (HA) filler
  - B. This is bluish hue that is visible within the skin caused by too superficial placement of HA filler
  - C. This term is used when an HA filler absorbs water and expands
  - D. This is the red/purple hue that occurs in the skin from too much HA filler
9. How does the practitioner avoid nasal tip necrosis when injection HA into the nasal region?

- A. Know the vascular anatomy
- B. Advise the patient on what signs to look for that may suggest a complication
- C. Use a vessel viewer
- D. Aspirate with each injection
- E. Avoid injecting the alar crease of the nose/nostril
- F. Avoid injecting the Radix of the nose

10. Mark the following that are true (more than one answer may be correct):

- A. Patients are happier if you put in more filler per session to make it last longer so you don't have to do it as often
- B. Volume replacement should be the last step in a treatment plan that includes other procedures such as skin tightening
- C. In the long run, to be the most profitable with a patient, you will do better to put in more filler less often.
- D. The nasolabial fold is one of the most common areas that patients ask to have treated with filler, but is also one of the most common areas an injector will have to educate a patient about the possibility of needing other treatments to properly address the concern
- E. A patient's nasolabial fold concern may need to be addressed with surgery and therefore would be mistreated with filler alone

11. Mark the following that are true (more than one answer may be correct):

- A. With some patients, especially younger ones, an injector may be "on the fence" between two different fillers to treat the nasolabial fold. If so, it is best to educate the patient about the difference as they can generally help you choose, and it is best to start conservative
- B. A patient may need less filler in the nasolabial folds if filler is injected into the cheek
- C. If the cheeks are improperly injected with filler, the nasolabial fold may worsen
- D. Since the nasolabial fold is a large area, if the proper filler is used, it is difficult to inject incorrectly as millimeter differences in injection sites are more important in smaller areas like the nose and tear trough

- E. In some patients it is best to address (inject) different areas of the face for filler in separate stages, and in others all areas should be addressed in the same visit.

12. Mark the following that are true (more than one answer may be correct):

- A. It is common for a well-trained injector to be the one to first suggest filler in a patient
- B. Patients with thicker skin and good elasticity typically see the best results from a certain amount of filler
- C. It is possible for a patient to have too much volume loss and thinning of skin to be properly treated with filler
- D. The “parentheses” or individual “papercut” line creases caused by smiling are generally difficult to correct with any filler, regardless of thickness, G prime, or water-affinity
- E. Parentheses lines due to smiling are best treated with neurotoxin

13. If a patient complains of “jowls”, they may need (more than one answer may be correct):

- A. Chin
- B. Marionette area
- C. Nasolabial fold
- D. Cheek
- E. Posterior jawline (pre-auricular area)
- F. Weight loss
- G. Skin tightening
- H. Surgery

14. Mark the following that are true (more than one answer may be correct):

- A. All patients will eventually lose some volume in different areas of the “perioral” areas and therefore the perioral area is one of the best regions to inject “that last 1/10<sup>th</sup> of a syringe of filler” that may be unused when treating other areas

- B. The perioral area has a high variability in choosing the right filler (G prime, cohesivity, water-affinity) and placement of that filler
- C. Occasionally, the need to inject filler in the marionette lines will only be visualized on profile view
- D. The Eline helps determine the need for and possible amount of filler to be injected in the nose, lips, and chin
- E. If a patient is concerned with nasolabial folds but has thin skin and tissue, it would be equally proper treatment to inject less volume of a bulking filler like Juvederm versus using more volume of a thinner filler like Vollure
- F. A less water-affinity filler may be able to be injected more superficially than a high water-affinity filler which needs to be injected deeper, regardless of amount injected

15. Mark the following that are true (more than one answer may be correct):

- A. A small amount of the right filler on the bridge (radix) of the nose may “slim” and straighten the nose
- B. The nasal tip has very little collateral blood supply, however the nasal bridge has plentiful blood supply and therefore the nasal bridge is much safer to inject with filler
- C. One potential test of safety of injecting the bridge of the nose is to pinch up the skin and if it is not adhered down to the cartilage, you can propose that a small amount of filler under that skin should not cause blanching, and therefore may be safe without decreasing vascularity
- D. The Radix slope of the nose should start at a point parallel to the lower eyelash when the patient’s eyes are open, when viewing them from profile
- E. Although it is possible an injector may “undertreat” an area with a thinner versus thicker filler, it is better to do so and be safe than overtreat, as long as you have educated the patient about a conservative approach and the financial aspect of needing another syringe in a follow up
- F. If a patient wants to be conservative and/or is very cost-conscious, it is best to use fewer filler syringes than you know will be necessary to address their concern because they can just come back and get more



- G. In some patients, especially younger ones and those with milder nasolabial concerns, it may be proper and enough to inject filler in the cheeks to provide lift, thereby improving the nasolabial fold without needing to directly inject that area
- H. Properly addressing and lifting/volumizing the cheek with filler may change the type of filler needed to be injected in the nasolabial folds
- I. Whether injecting the cheeks and the nasolabial area in one session or separate, it is best practice to show the patient what filler in the cheeks did to address the nasolabial fold so the patient understands why cheek injections may be necessary instead of just injections into the nasolabial folds

### Answer Key

1) A

2) B

3) A

4) E

5) A

6) B, C, E

7) A, B, C, D, E

8) B

9) A, B, C, D, E

10) B, D, E

11) A, B, C, E

12) A, B, C, D

13) A, B, C, D, E, F, G, H



14) A, B, C, D, F

15) A, C, E, G, H, I