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Director of Forensic Services, SCFCT

Medical Director, CFMI - Faculty, TISP

HOW TO CONDUCT A DOMESTIC VIOLENCE EXAM

Intellectual Property Rights Disclosure

Don’t be a Pirate!

Photo courtesy of Anthony :) at Pexels.com

Objectives

- Documentation of History & Physical Exam
  - Set up of Adobe Pro
  - How to Fill out the Fillable PDF
- Conducting the Physical Exam
  - Photography
  - Neck Exam
  - Neurological Exam
  - Cranial Nerve Exam
- Screening for Head/Neck/Brain Injury
  - Utilization of the Head Injury Addendum
  - Utilization of the Strangulation Addendum
- Imaging
- Treatment & Referral
- Expert Testimony

Photo Courtesy of Pixabay at Pexels.com

DOCUMENTATION

Photo Courtesy of Mohammad Danish at Pexels.c

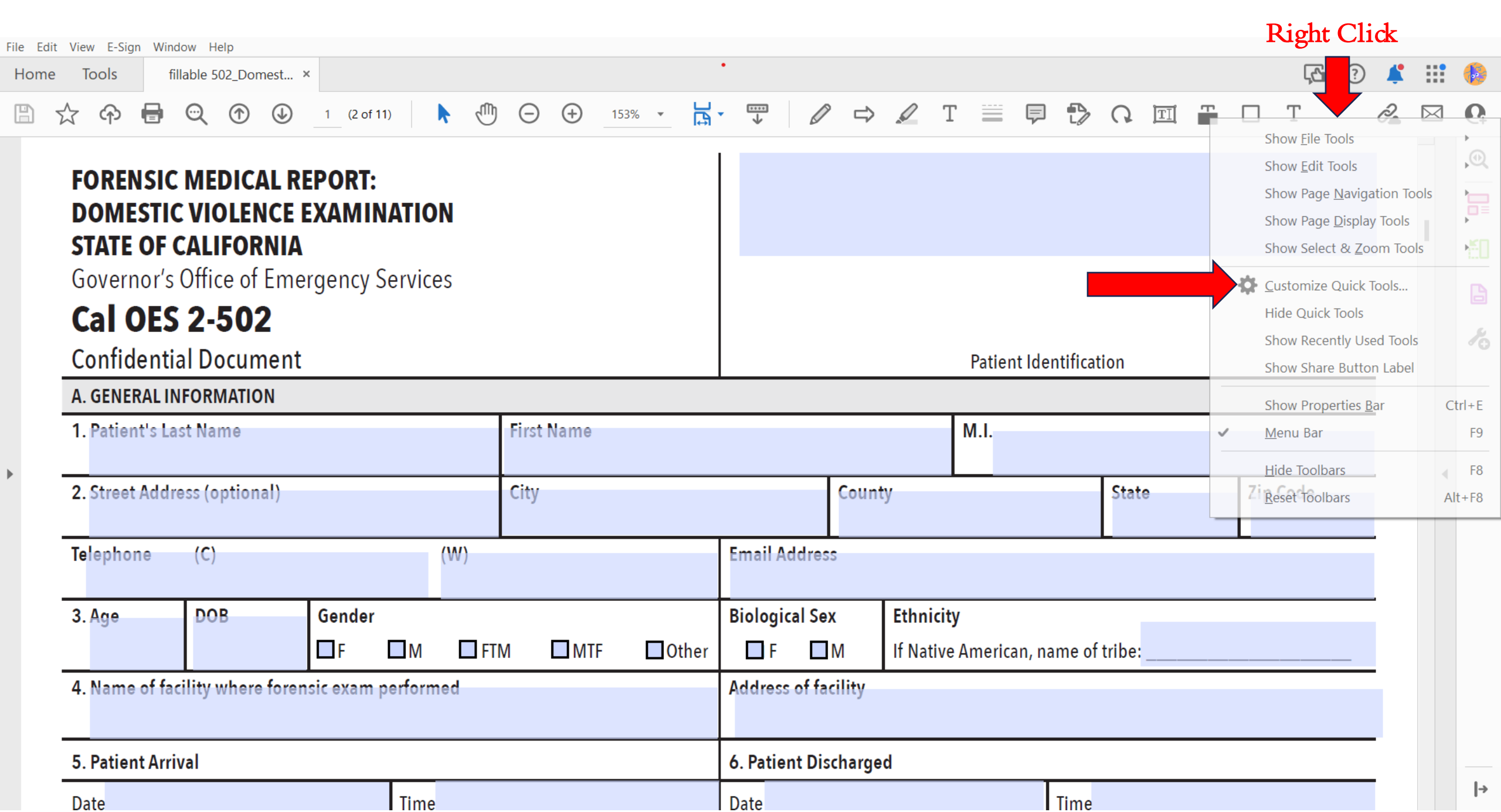
STATE OF CALIFORNIA

GOVERNOR'S OFFICE OF EMERGENCY SERVICES

www.caloes.ca.gov

FORENSIC MEDICAL REPORT DOMESTIC VIOLENCE EXAMINATION

Cal OES 2-502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Reset Toolbars Alt+F8
FORENSIC MEDICAL REPORT:
DOMESTIC VIOLENCE EXAMINATION
STATE OF CALIFORNIA
Governor's Office of Emergency Services
Cal OES 2-502
Confidential Document
Patient Identification
A. GENERAL INFORMATION
1. Patient's Last Name
First Name
M.I.
2. Street Address (optional)
City
County
State
Zip Code
Telephone (C)
(W)
Email Address
3. Age
DOB
Gender
F M FTM MTF Other
Biological Sex
F M
Ethnicity
If Native American, name of tribe:
4. Name of facility where forensic exam performed
Address of facility
5. Patient Arrival
Date
Time
6. Patient Discharged
Date
Time

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FORENSIC MEDICAL REPORT: DOMESTIC VIOLENCE EXAMINA
STATE OF CALIFORNIA
Governor's Office of Emergency Ser

Cal OES 2-502
Confidential Document

A. GENERAL INFORMATION

1. Patient's Last Name

2. Street Address (optional)

Telephone (C)

3. Age | DOB | Gender ☐F ☐

4. Name of facility where forensic exam per

5. Patient Arrival

Date Time

6. Patient Discharged

Date Time

State Zip Code

tion

tribe: _____

Customize Quick Tools

Tools to show in Toolbar:

Choose tools to add:

- Create PDF
- Edit PDF
- Export PDF
- Comment
  - Sticky Note
  - Highlight
  - Text
  - Stamps
  - Attach File
  - Record Audio

Save Cancel

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FORENSIC MEDICAL REPORT: DOMESTIC VIOLENCE EXAMINA
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Governor's Office of Emergency Se

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tribe: _____

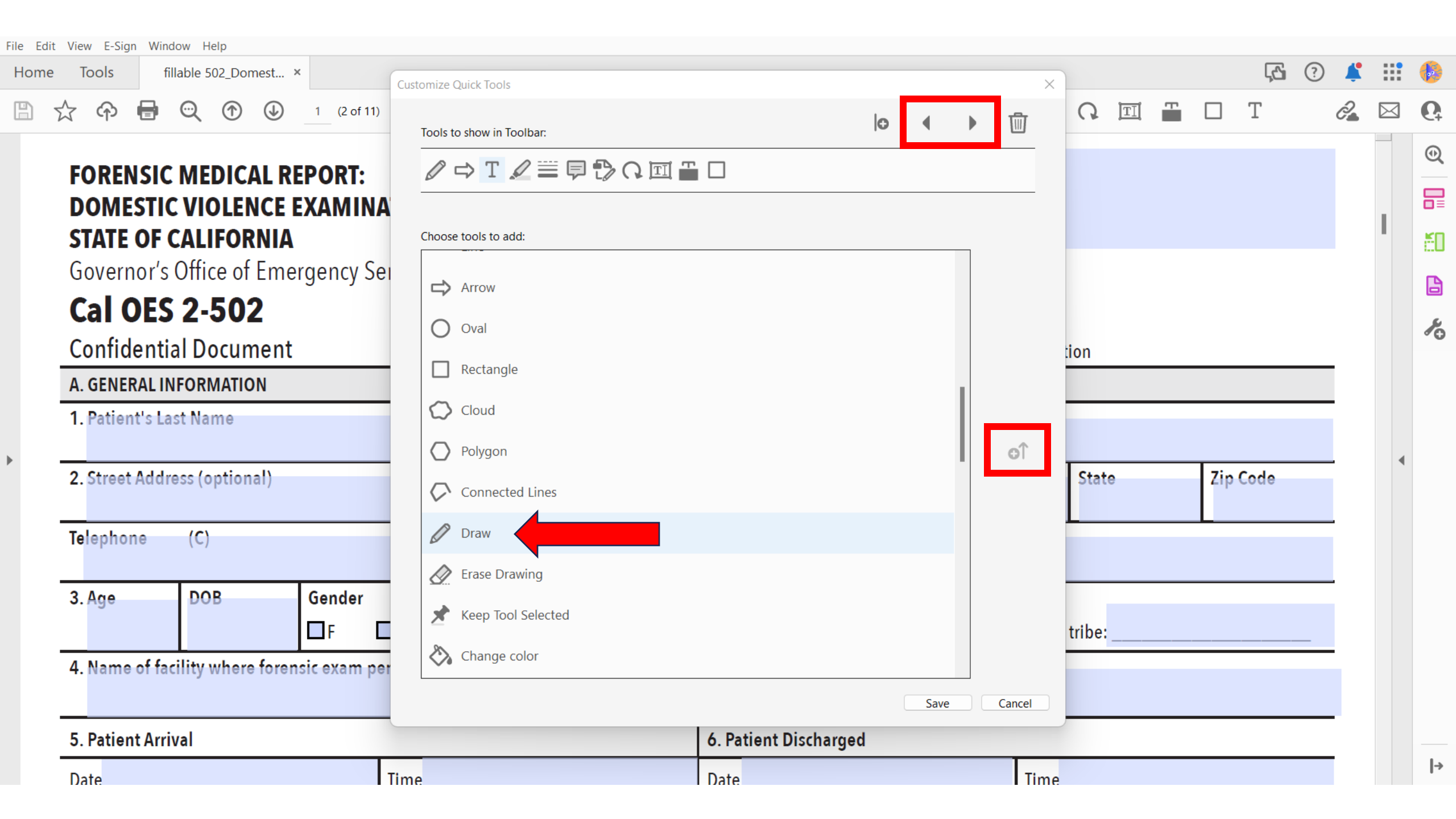
Customize Quick Tools

Tools to show in Toolbar:

Choose tools to add:

- Record Audio
- Insert Text
- Replace Text
- Strikethrough
- Underline
- Text Box
- Text Callout
- Line
- Arrow
- Oval

Save Cancel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Change color
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tribe:
5. Patient Arrival
Date
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Date
Time

FORENSIC MEDICAL REPORT: DOMESTIC VIOLENCE EXAMINATION STATE OF CALIFORNIA

Governor's Office of Emergency Services

Cal OES 2-502

Confidential Document

Patient Identification

A. GENERAL INFORMATION

1. Patient's Last Name | First Name | M.I.

2. Street Address (optional) | City | County | State | Zip Code

Telephone (C) (W) | Email Address

3. Age | DOB | Gender ☐F ☐M ☐FTM ☐MTF ☐Other | Biological Sex ☐F ☐M | Ethnicity If Native American, name of tribe: _____

4. Name of facility where forensic exam performed | Address of facility

5. Patient Arrival — Date | Time

6. Patient Discharged — Date | Time

FORENSIC MEDICAL REPORT: DOMESTIC VIOLENCE EXAMINATION STATE OF CALIFORNIA

Governor's Office of Emergency Services

Cal OES 2-502

Confidential Document

Patient Identification

A. GENERAL INFORMATION

1. Patient's Last Name | First Name | M.I.

2. Street Address (optional) | City | County | State | Zip Code

Telephone (C) (W) | Email Address

3. Age | DOB | Gender ☐F ☐M ☐FTM ☐MTF ☐Other | Biological Sex ☐F ☐M | Ethnicity If Native American, name of tribe: _____

4. Name of facility where forensic exam performed | Address of facility

5. Patient Arrival — Date | Time

6. Patient Discharged — Date | Time

3. TELEPHONE AUTHORIZATION

Agency:
Authorizing party:
ID number:
Date/Time:

Law Enforcement Officer	ID Number	Agency

Telephone	Date	Time	Case Number

C. PATIENT INFORMATION

I understand that hospitals and health care professionals are required by Penal Code §§ 11160–11161 to report to law enforcement authorities cases in which medical care is sought when injuries have been inflicted upon any person in violation of any state penal law. The report must state the name of the injured person, current whereabouts, and the type and extent of injuries. _____ (initials)

D. PATIENT CONSENT

- I understand that a forensic medical examination for evidence of domestic violence, with my consent, will be conducted by a health care professional to discover and preserve evidence of the assault. If conducted, the report of the examination and any evidence obtained will be released to law enforcement authorities. I understand that the examination may include the collection of reference specimens at the time of the examination or at a later date. I understand that I may withdraw consent at any time for any portion of the examination. _____ (initials)
- I understand that collection of evidence may include audio/visual recordings and photographing injuries and that these photographs may include the genital area. _____ (initials)
- I hereby consent to a forensic medical examination for evidence of domestic violence. _____ (initials)
- I understand that data without patient identity may be collected from this report for health and forensic purposes and may be provided to health authorities and other qualified persons with a valid educational or scientific interest for demographic or epidemiological studies. _____ (initials)

Signature: _____ ☐ Patient ☐ Parent ☐ Guardian

E. DISTRIBUTION OF Cal OES 2-502 (CHECK ALL THAT APPLY)

☐ Law Enforcement Officer: Original ☐ Crime Lab: Copy Within Evidence Kit ☐ Medical or Agency Facility Records: Copy

F. PATIENT HISTORY

Jane Smith
DOB: 8/1/2000

Patient Identification

1. Disability ☐ No ☐ Yes
If yes, ☐ Cognitive ☐ Physical ☐ Blind ☐ Deaf/HOH ☐ Mental

2. Obstetrical History **Pregnant?** ☐ No ☐ Yes ☐ Unknown

If yes, any possible problems related to current assaults? ☐ No ☐ Yes
If yes, describe: _____

Any possible problems in past pregnancies related to past assaults by this assailant? ☐ No ☐ Yes
If yes, describe: _____

3. Name(s) of Children/Dependent Adults Living in Household	Present During Assault(s)			Gender		DOB or Age
	No	Yes	UNK	M	F	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	

4. Voluntary Use of Alcohol/Drugs?

Any voluntary alcohol use within 24 hours prior to assault? ☐ No ☐ Yes

7. Patient description of assault. ☐ Additional pages attached.

8. Method(s) employed by assailant(s).

Weapons? ☐ No ☐ Yes
Threatened? ☐ Shown ☐ Believed
If yes, describe: _____

Injuries inflicted? ☐ No ☐ Yes

	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	

4. Voluntary Use of Alcohol/Drugs?

Any voluntary alcohol use within 24 hours prior to assault?	☐ No	☑ Yes
Any voluntary drug use within 120 hours prior to assault?	☐ No	☑ Yes
Any voluntary drug ☐ or alcohol ☐ use between time of assault and forensic exam?	☑ No	☐ Yes

List drugs used: Alcohol and Marijuana, denies feeling intoxication at the time of the assault

G. CURRENT ASSAULT HISTORY

1. Sexual contact with assailant as part of this assault? ☐ No ☐ Yes

If yes, consider using Cal OES Form 2-923 or 2-924.

2. Examination audio and/or videotaped?

☐ No ☐ Yes ☐ Audio ☐ Video

3. Name of person providing history	Relationship to patient
4. Date(s) of assault	**Time of assault**

5. Alleged assailant(s)	Age	Gender	Ethnicity	Relationship to Patient

8. Method(s) employed by assailant(s).

Weapons?	☐ No	☐ Yes
Threatened?	☐ Shown	☐ Believed
If yes, describe:		
Injuries inflicted?	☐ No	☐ Yes
If yes, describe:		
Type(s) of weapons?	☐ No	☐ Yes
If yes, describe:		
Physical blows? If yes, use page 4 and, if applicable, the Head Trauma Addendum	☐ No	☐ Yes
Grabbing/shaking/holding/pinching? If yes, use page 4.	☐ No	☐ Yes
Physical restraints?	☐ No	☐ Yes
If yes, describe:		
Strangulation/choking? If yes, use Strangulation Addendum	☐ No	☐ Yes
Suffocation? If yes, use page 4.	☐ No	☐ Yes
Water Immersion? If yes, use page 4.	☐ No	☐ Yes
Bites?	☐ No	☐ Yes

ADDENDUM

Jane Smith
DOB: 8/1/2000

Patient Identification

PMH:
H/o head/neck/brain injuries:
Chronic head/neck/brain disorders:
Medications:
Do you medications have any effect on your level of consciousness or memory?
Allergies:

Patient Identification

4. Describe condition of clothing upon arrival. Collect outer and under clothing, if applicable. ☐ Not Applicable

5. Examine the face, head, ears, hair, scalp, neck, and mouth for injury. Document findings using photographs, diagrams, legend, and consecutive numbering system.

6. Collect dried and moist secretions, stains, and foreign materials from the scalp, head, and neck, if applicable. ☐ Not Applicable

7. Collect two (2) swabs from each side of the neck, if applicable. ☐ Not Applicable

Diagram A

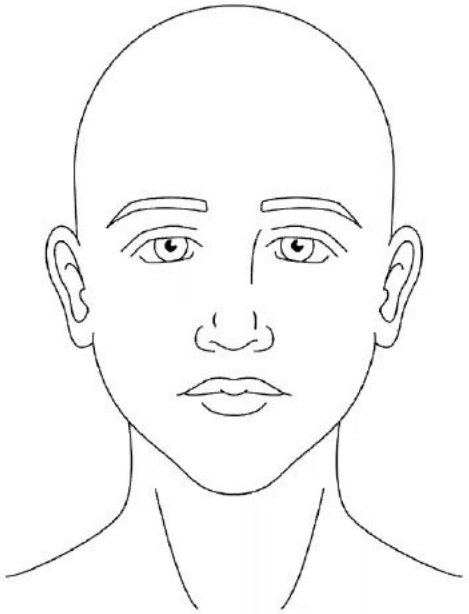


Diagram C

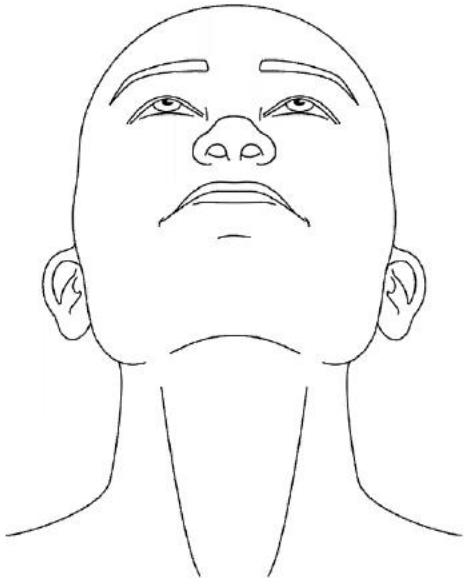
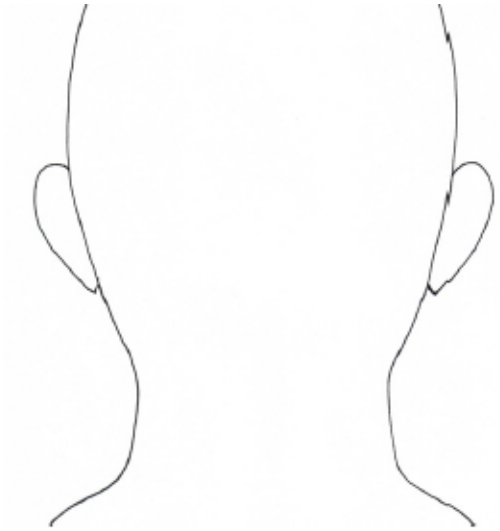
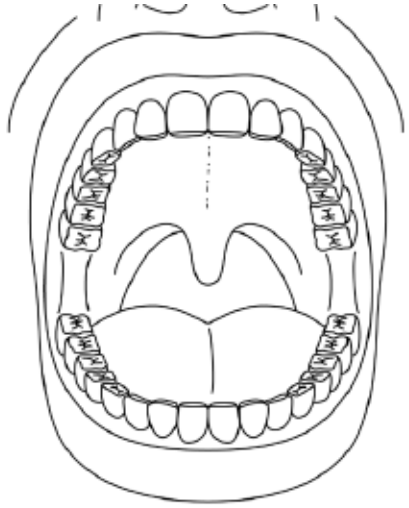


Diagram B

Diagram D





LEGEND: TYPES OF FINDINGS

AB	Abrasion	**DF**	Deformity	**FB**	Foreign Body	**OF**	Other Foreign Materials (describe)	**SI**	Suction Injury
ALS	Alternate Light Source ⊕	**DS**	Dry Secretion	**IN**	Induration	**OI**	Other Injury (describe)	**SW**	Swelling
BI	Bite	**EC**	Ecchymosis (bruise)	**IW**	Incised Wound	**PE**	Petechiae	**TB**	Toluidine Blue ⊕
BU	Burn	**ER**	Erythema (redness)	**LA**	Laceration	**PS**	Potential Saliva	**TE**	Tenderness
DE	Debris	**F/H**	Fiber/Hair	**MS**	Moist Secretion	**SXH**	Sample Per History	**V/S**	Vegetation Soil

Locator #	Type	Description	Locator #	Type	Description
		Extension, left side turning, and			neck that is tender to palpation.
		left side bending produce pain to			
		the right lateral neck.			
A1,B1	EC	Non-blanching red parallel linear			
C1	TE	ecchymoses to the right lateral			

4. Reference Samples ☐ Blood ☐ Saliva ☐ Buccal ☐ N/A

Collected by:

K. SUPPLEMENTAL DOCUMENTS AND MEDIA

1. Laboratory Results **Additional Page** ☐ No ☐ Yes

Pregnancy ☐ Positive ☐ Negative ☐ N/A

Additional Labs ☐ No ☐ Yes, specify:

See Hospital Record ☐ ☐

2. X-Ray/Imaging Results **Additional Page** ☐ No ☐ Yes

☐ No ☐ Yes, specify:

See Hospital Record ☐

3. Photo Documentation Methods

Body ☐ No ☐ Yes ☐ Colposcope ☐ Digital Camera/Macrolens
☐ Colposcope/Videocamera ☐ Other Optics:

Genitals ☐ No ☐ Yes ☐ Colposcope ☐ Digital Camera/Macrolens
☐ Colposcope/Videocamera ☐ Other Optics:

Photographed by:

Physical Exam Performed By: (Print)

Specimens Labeled and Sealed By: (Print) ☐ N/A

Assisted By: (Print) ☐ N/A

Additional Narrative By: (Print) ☐ N/A

Signature of Examiner	License Number	Date

O. SIGNATURE OF LAW ENFORCEMENT RECEIVING EVIDENCE ☐ N/A

Signature:

Print Name: ID#:

Agency:

Date: Telephone:

L. SUMMARY OF KEY FINDINGS

Physical Examination

General Physical Exam

- Vitals
- Head-to-toe physical examination
- Visualization of injury and palpation for tenderness to the Head, Neck, Torso, Upper and Lower Extremities
- Standardized Neck Exam
- Standardized Neurological Exam
- Additional joint examinations as indicated per history

Photo Courtesy of RODNAE Productions at Pexels.com

Photo Courtesy of Wilson Vitorino at Pexels.com

Neck Exam

- 6 axis of movement
  - Flexion
  - Extension
  - Side Turning (bilateral)
  - Side Bending (bilateral)
- Photos: Ecchymosis vs. Erythema
- Palpation for Tenderness

FLEXION AND EXTENSION

Photo courtesy of Ron Lach and cottonbro at Pexels.com

LEFT AND RIGHT SIDE TURNING

Photo courtesy of Monstera and Ron Lach at Pexels.com

LEFT AND RIGHT SIDE BENDING

Photo courtesy of Sound On and cottonbro at Pexels.com

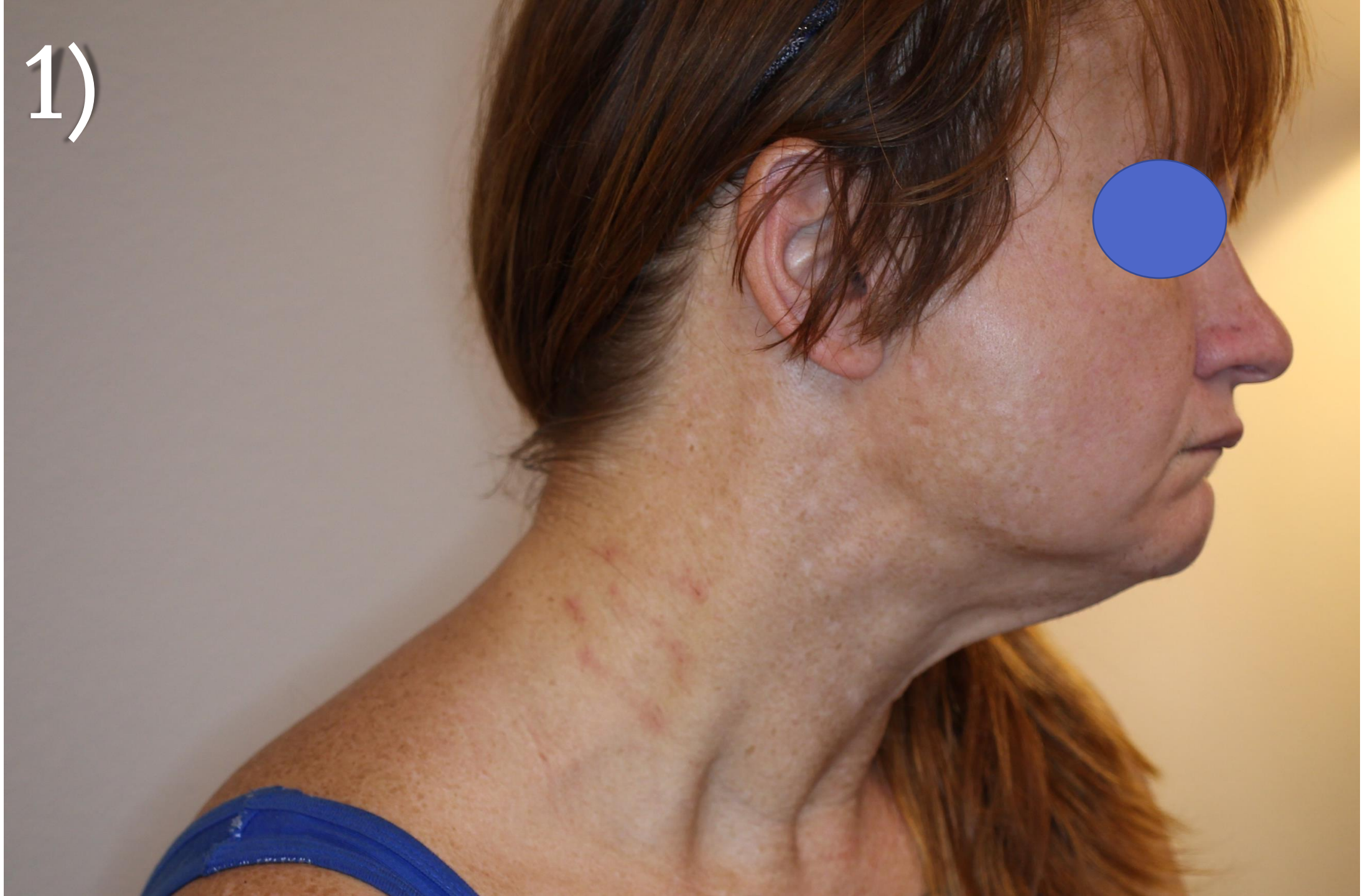
PHOTOGRAPHY

Photo courtesy of Luis Quintero at Pexels.com

Visible injuries

- Standard 4 photos per injury
- 1) Injury + 2 anatomical landmarks
- 2) Injury Midrange
- 3) Injury Closeup
- 4) Injury Closeup with measuring device

Photo courtesy of Luis Quintero at Pexels.com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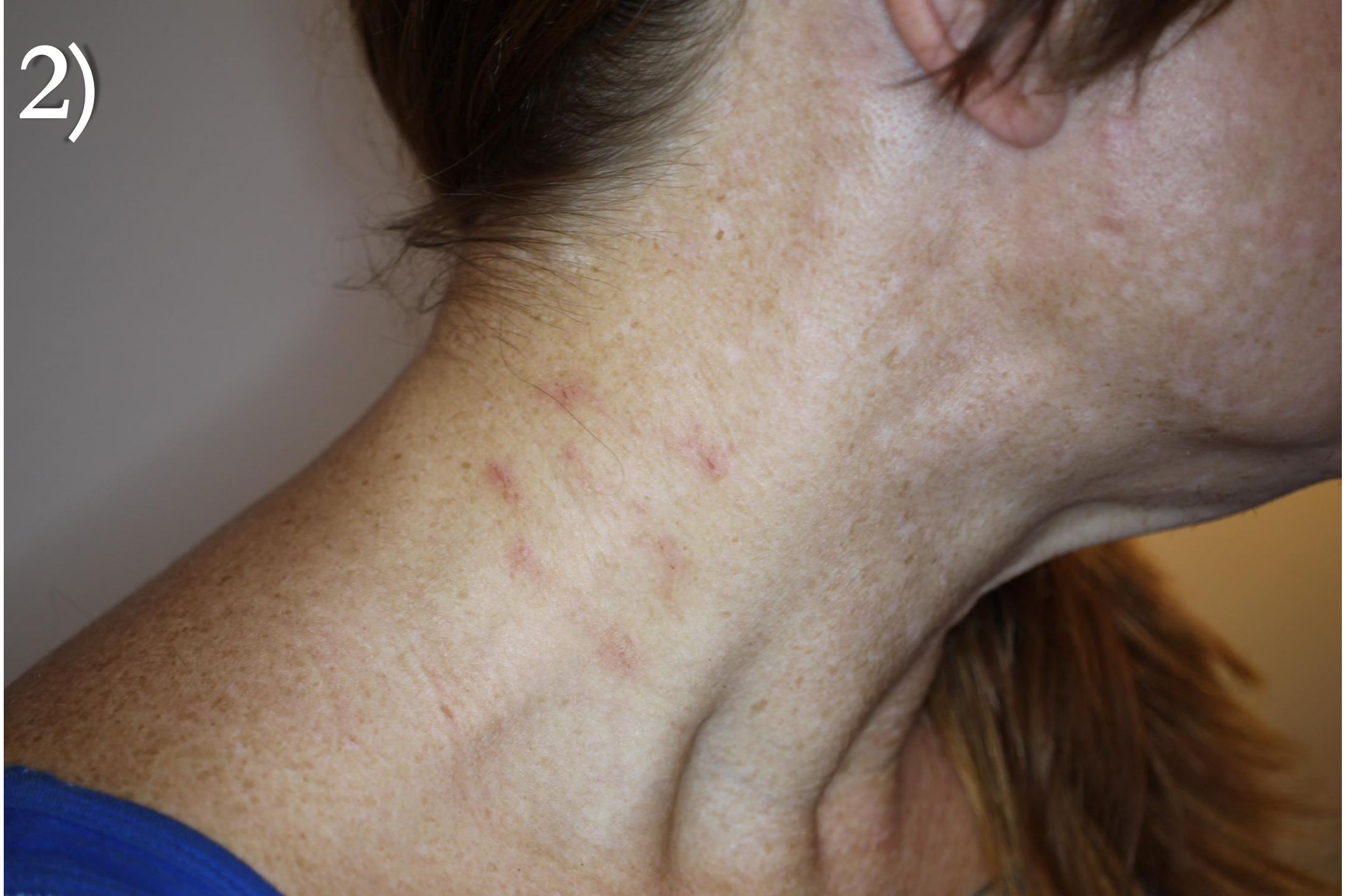
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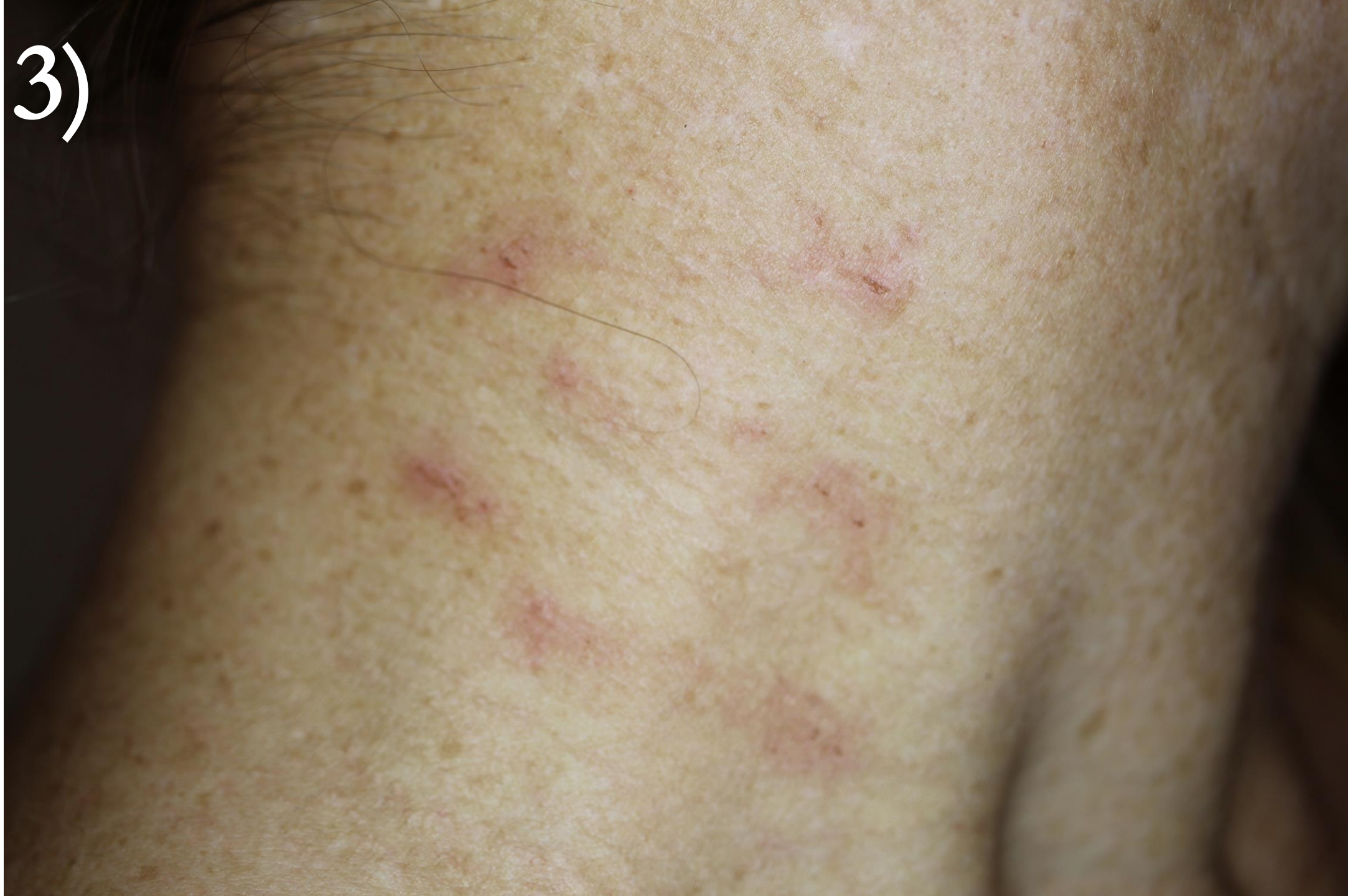
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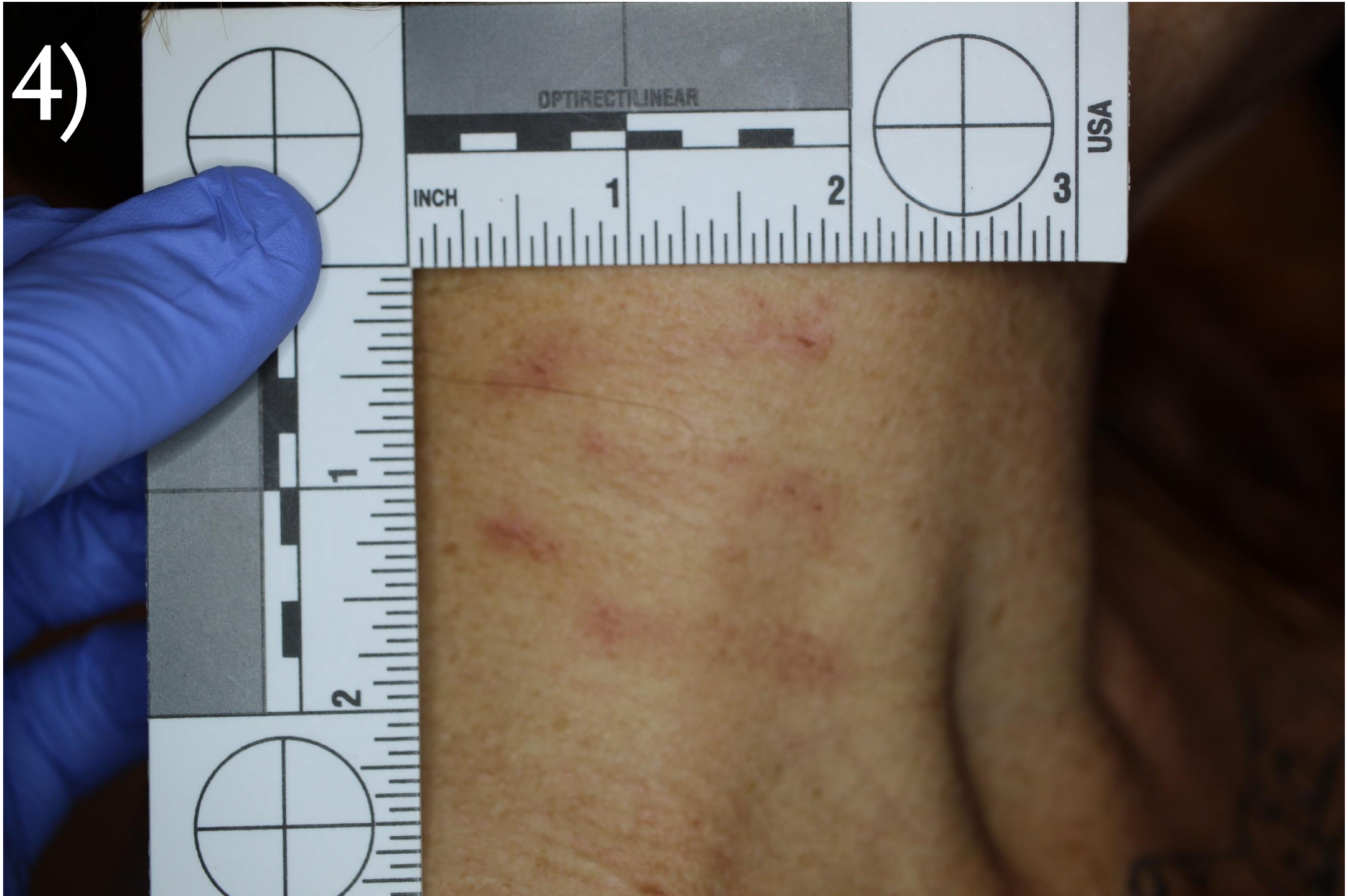
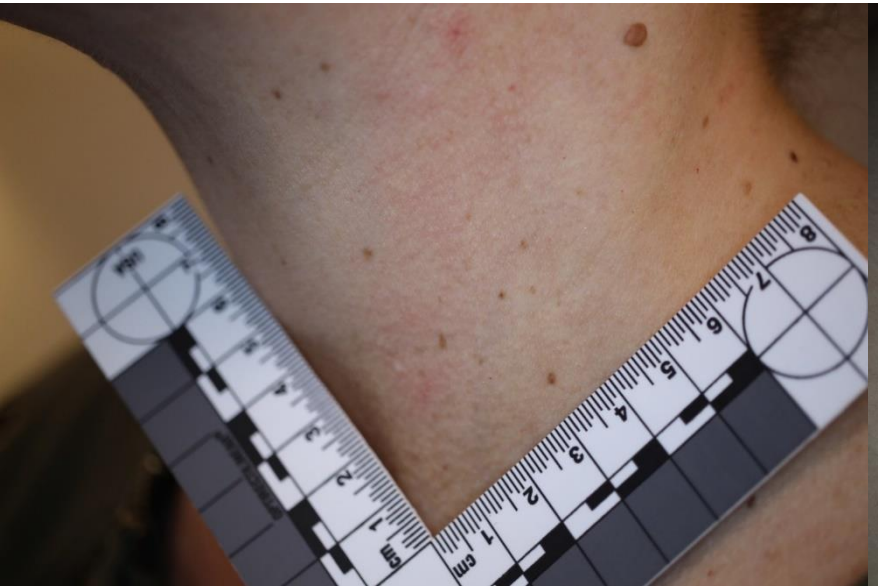
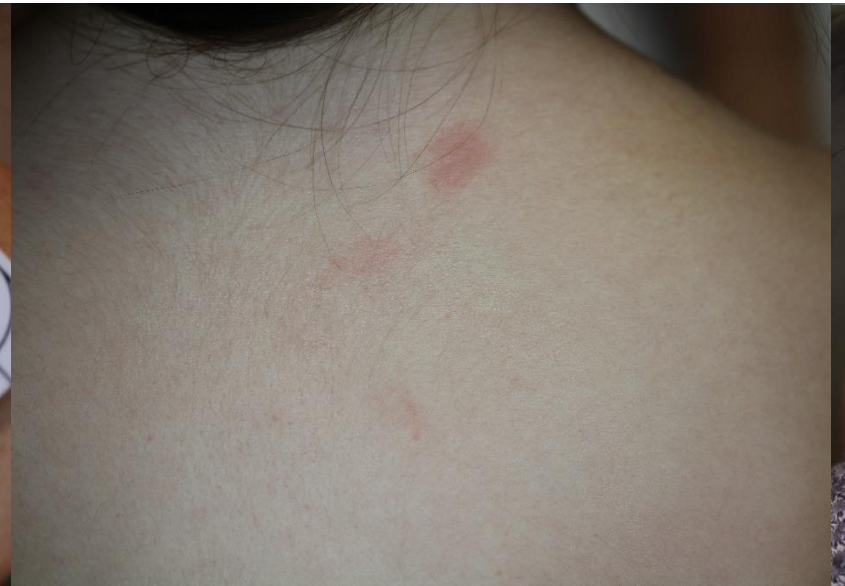
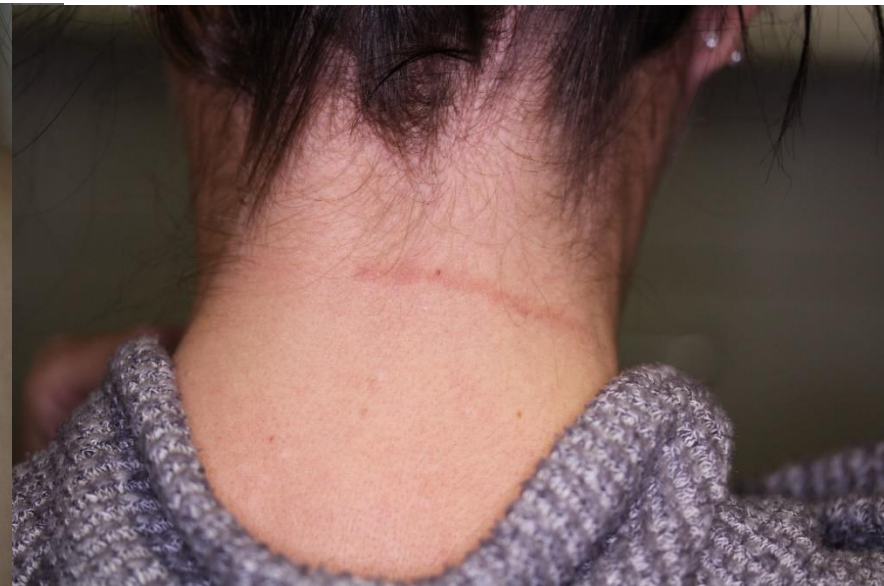

4)
OPTIRECTILINEAR
INCH
1
2
3
USA

ERYTHEMA VS. ECCHYMOSIS

- Red bruises exist, are common, and easy to mistake for erythema
- How can you tell the difference?
- Does it blanch?







SWABS

- Discuss with your MDT
- Indicated based on history
- Bilateral Neck Swabs
- Bilateral Fingernails (if indicated)

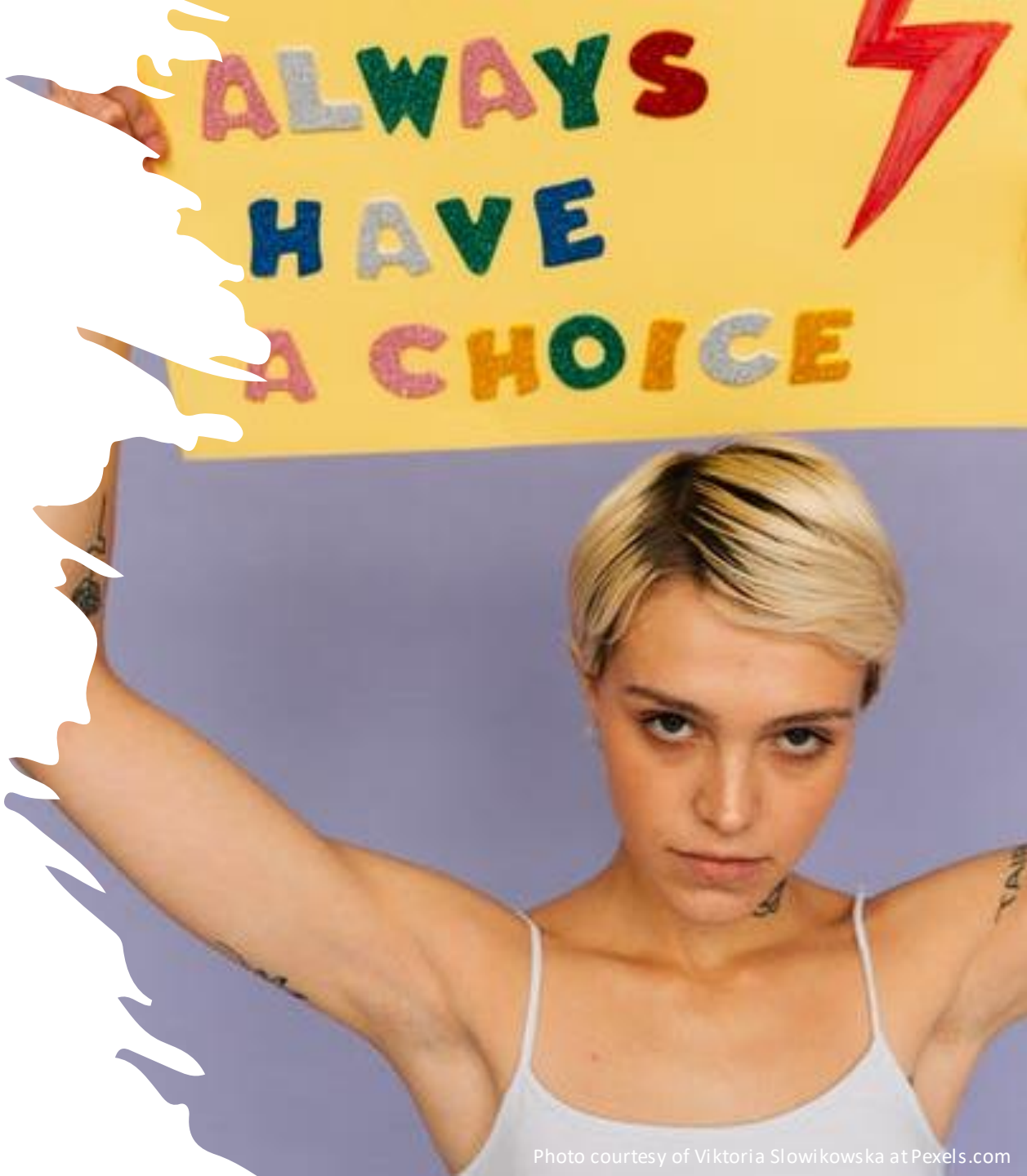
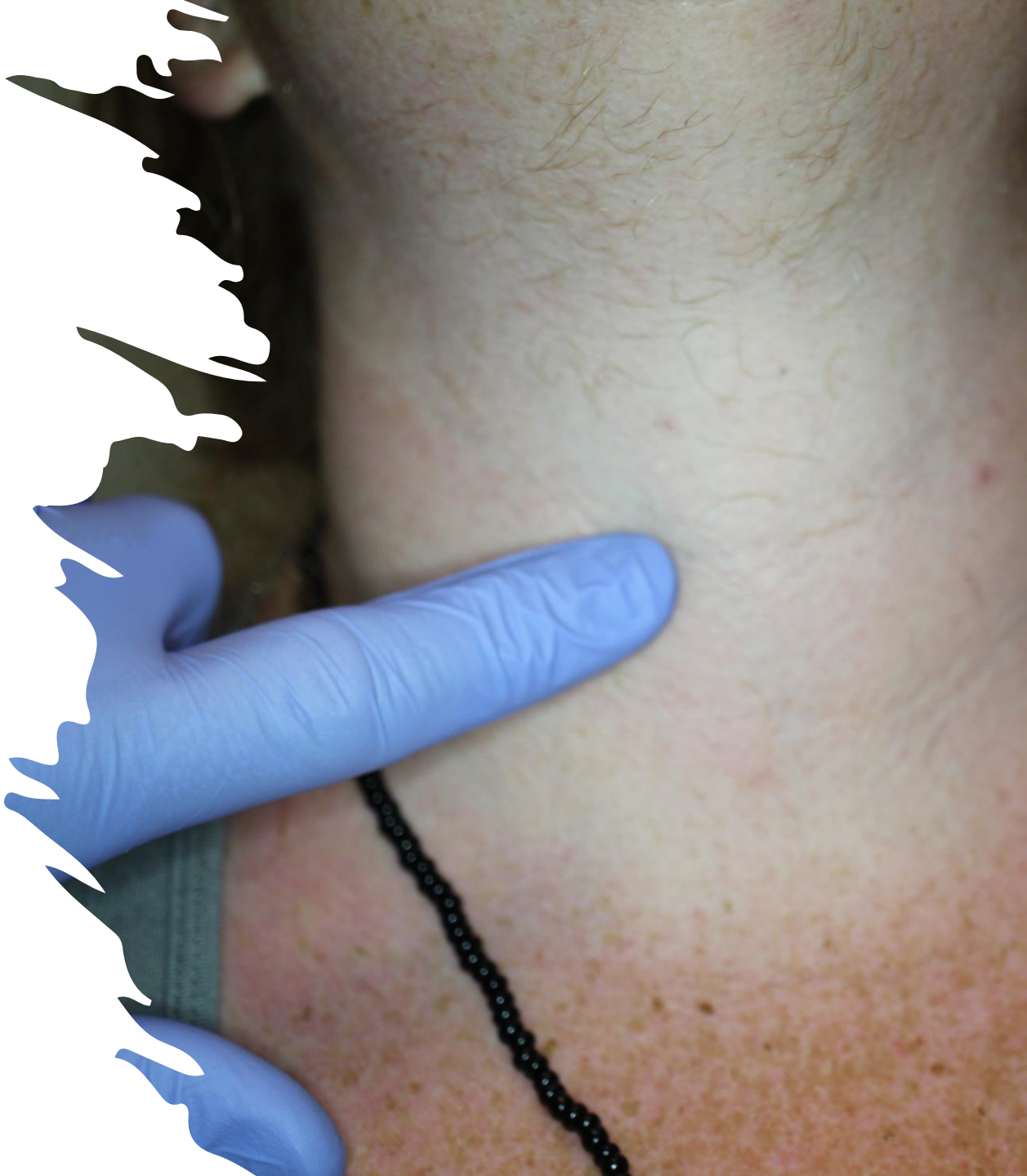


Photo courtesy of Viktoria Slowikowska at Pexels.com

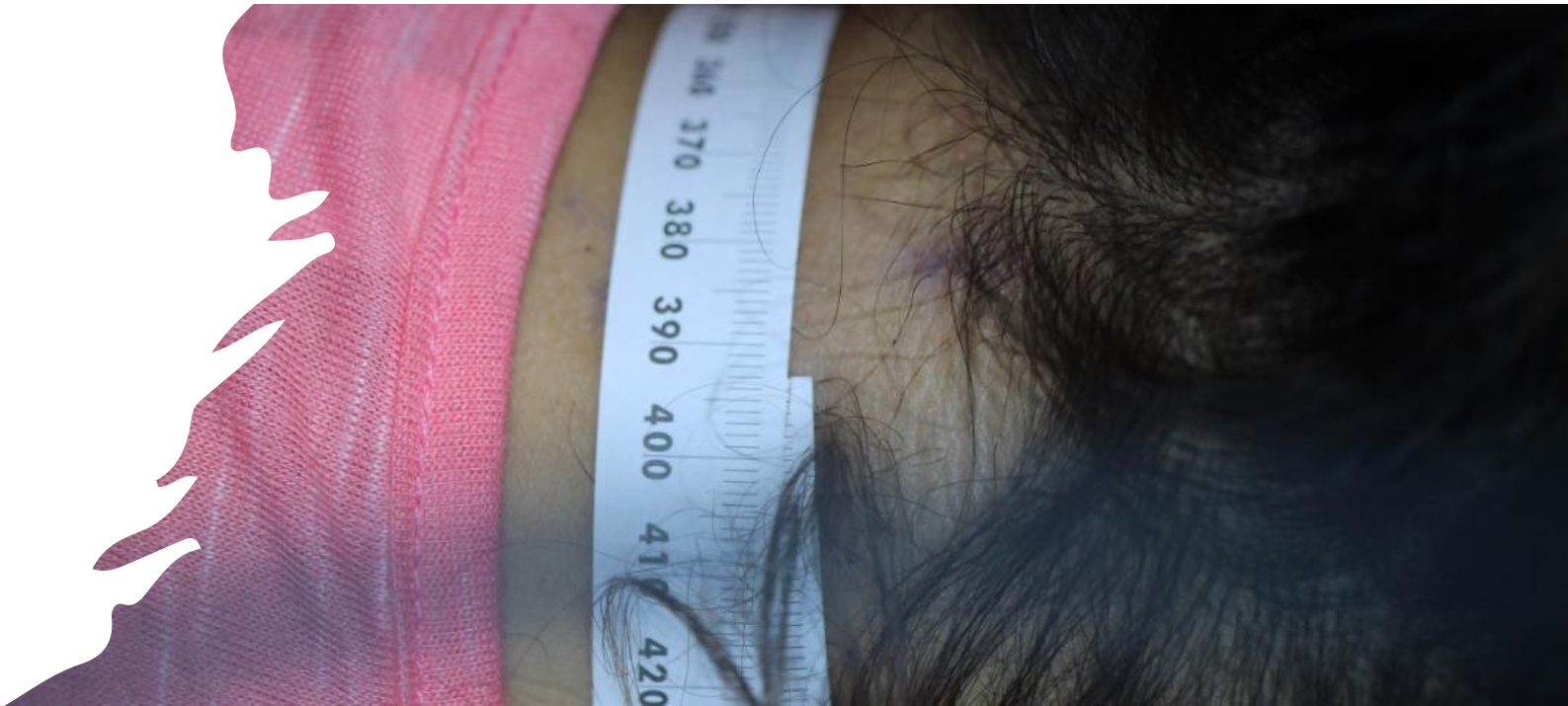
TENDERNESS TO PALPATION WITHOUT VISIBLE INJURY

- One photo with the examiners **GLOVED** hand pointing to the area of tenderness

- **TTP** = Tenderness to Palpation



Neck Measurements



Cranial Nerves

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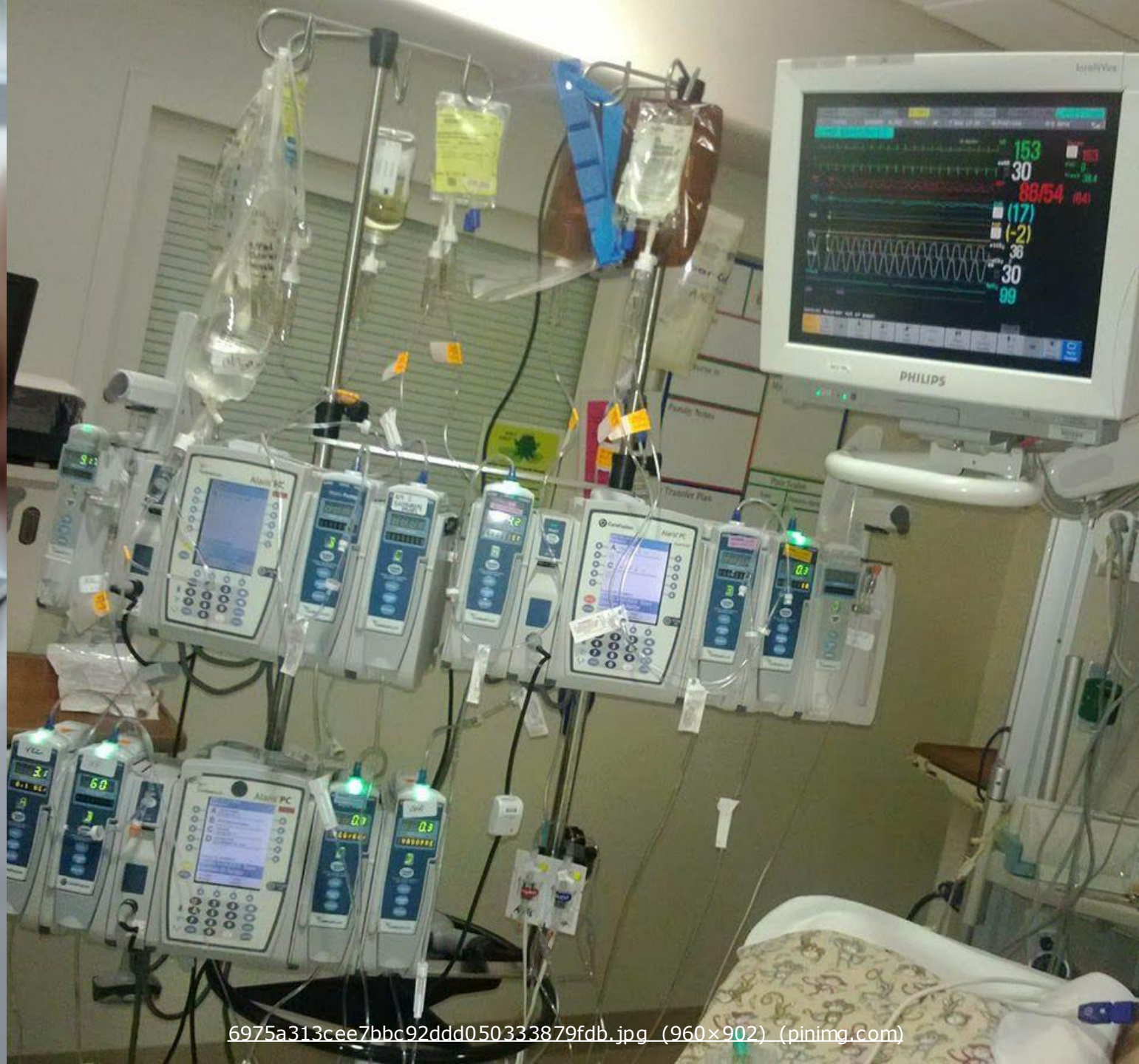
Photo courtesy of SHVETS at Pexels.com



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CRANIAL NERVES

- CN I – Olfactory – Smell
- CN II – Optic – Sight
- CN III – Oculomotor – Most Eye Movement
- CN IV – Trochlear – Eye Abduction and Intorsion
- CN V – Trigeminal – Facial Sensation, Chewing
- CN VI – Abducens – Eye Abduction
- CN VII – Facial – Facial expression
- CN VIII – Vestibulocochlear – Hearing
- CN IX – Glossopharyngeal – Taste, Swallow
- CN X – Vagus – Palatal Elevation with saying “Ahh”
- CN XI – Shoulder Shrug
- CN XII – Tongue Protrusion

Photo Courtesy of Artem Beliaikin at Pexels.com

Cranial Nerves – Easy Grouping

Senses

- CN I – Olfactory – Smell
- CN II – Optic – Sight
- CN VIII – Vestibulocochlear – Hearing
- CN IX – Glossopharyngeal – Taste

Cranial Nerves – Easy Grouping

Eye Movement

- CN III – Oculomotor – Most Eye Movement
- CN IV – Trochlear – Eye Abduction and Intorsion
- CN VI – Abducens – Eye Abduction

- Eye Abduction – Look towards your ear
- Eye Adduction – Look towards your nose

Photo Courtesy of Pixabay at Pexels.com

Photo Courtesy of Ike louie Natividad at Pexels.com

Cranial Nerves – Easy Grouping

Facial Sensation/Movement

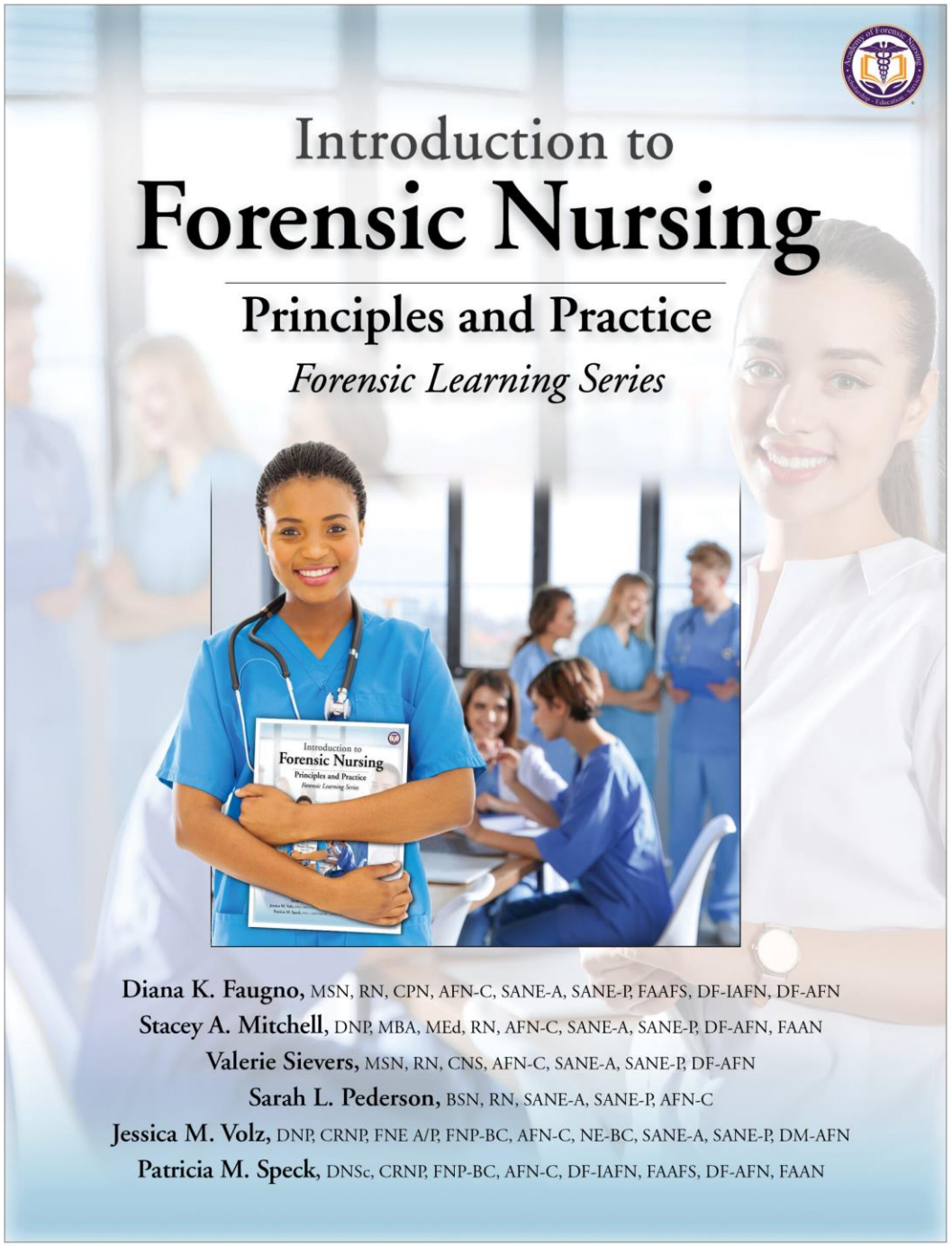
- CN V – Trigeminal – Facial Sensation, Chewing
- CN VII – Facial – Facial expression (Smile)
- CN X – Vagus – Palatal Elevation with saying “Ahh”
- CN XI – Shoulder Shrug
- CN XII – Tongue Protrusion

CRANIAL NERVES - EXAM

- **Any changes to smell, sight, hearing, or taste?** (Sensory Group)
- **Extraocular movements intact?** (Eye movement group)
- **Facial sensation, chew/bite down, smile, stick your tongue out, say "ahh," swallow, and shoulder shrug.** (Facial sensation/movement group)

NEUROLOGICAL EXAM

- Denies current loss of smell, taste, vision, or hearing
- Opens/closes eyelids
- PERRLA
- EOMI
- No deficits on facial sensation, chewing movements, facial movements, tongue movements, say “aah,” swallowing, shoulder shrug
- Upper body strength 5/5
- Lower body strength 5/5
- Reflexes (1+ Brachioradialis and Patellar DTRs)
- Romberg (Proprioception)
- Finger to nose (Upper Extremity Coordination)
- Gait



No Financial Disclosures

Additional references

- Chapters on Strangulation and Traumatic Brain Injury (TBI)
- Included in the Adult/Adolescent and Pediatric Sexual Assault Forensic Examiner Trainings
- Gold Standard in California

Screening for Head/Neck/Brain Injury Utilization of the Head Injury & Strangulation Addendums

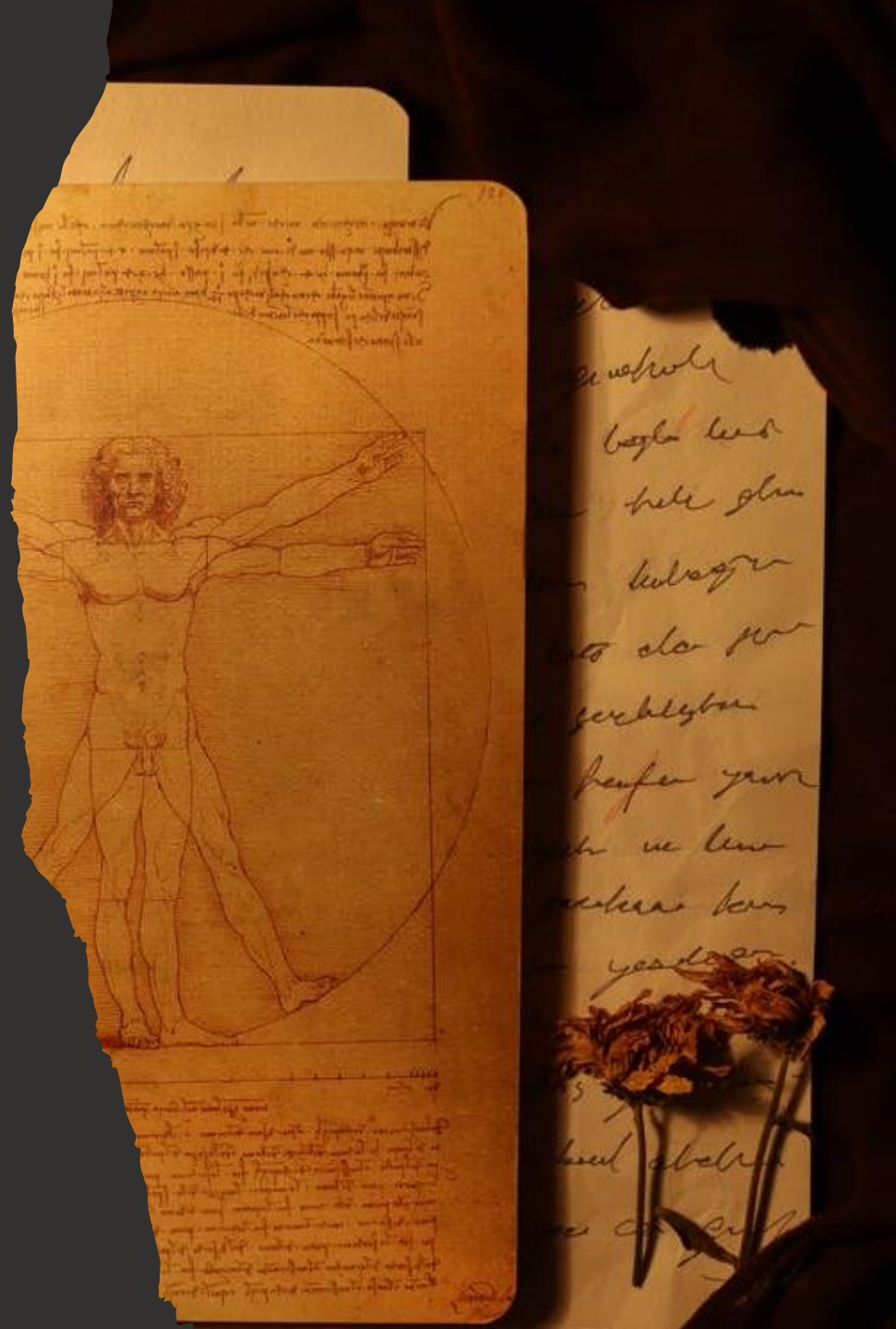


Photo Courtesy of Rachel Clair3e at Pexels.com

Mechanism of Injury

+

Neurological symptoms

=

Traumatic Brain Injury

HEAD INJURY ADDENDUM

Patient Identification

Did the suspect hit you in the head with a part of his/her body, an object, a surface, or something else at any time during the assault? ❑ **NO**, skip this page ❑ **YES**, fill this page out

What did the suspect use to hit your head (e.g., body parts, objects, surface, something else)?

Approximately how many times did the suspect hit you in the head?

LOSS OF AWARENESS SYMPTOMS ASSOCIATED WITH HEAD TRAUMA

Did you lose consciousness?	❑ No	❑ Yes
Are there any gaps in your memory **before** the hit(s) to your head?	❑ No	❑ Yes
Are there any gaps in your memory **after** the hit(s) to your head?	❑ No	❑ Yes
Did your position change during the hits to your head (e.g., standing to laying)?	❑ No	❑ Yes
If yes, do you remember?	❑ No	❑ Yes

HEAD SYMPTOMS EXPERIENCED AFTER THE HEAD TRAUMA (indicate if present at time of exam)

Pain to the head (e.g., scalp, face)?	❑ No	❑ Yes	❑ At time of exam
Pain with eye movements?	❑ No	❑ Yes	❑ At time of exam
Pain to the nose?	❑ No	❑ Yes	❑ At time of exam
Pain to the lip/mouth/tongue?	❑ No	❑ Yes	❑ At time of exam
Pain with jaw opening/closing?	❑ No	❑ Yes	❑ At time of exam
Bruising to the head/face?	❑ No	❑ Yes	❑ At time of exam
Swelling to the head/face?	❑ No	❑ Yes	❑ At time of exam
Deviated nose?	❑ No	❑ Yes	❑ At time of exam
Nose bleeding?	❑ No	❑ Yes	❑ At time of exam
Lip/mouth/tongue bleeding?	❑ No	❑ Yes	❑ At time of exam
Tooth pain?	❑ No	❑ Yes	❑ At time of exam
Chipped or loose teeth?	❑ No	❑ Yes	❑ At time of exam
Difficulty breathing (through nose of mouth)?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

NEUROLOGICAL (NEURO) SYMPTOMS EXPERIENCED AFTER THE HEAD TRAUMA (indicate if present at time of exam)

Problems with memory, recall, concentration? If yes, give examples. Examples: _____	❑ No	❑ Yes	❑ At time of exam
Vision changes or problems?	❑ No	❑ Yes	❑ At time of exam
Photosensitivity?	❑ No	❑ Yes	❑ At time of exam
Hearing changes or problems?	❑ No	❑ Yes	❑ At time of exam
Dizziness or dizzy spells?	❑ No	❑ Yes	❑ At time of exam
Feeling faint?	❑ No	❑ Yes	❑ At time of exam
Lightheaded?	❑ No	❑ Yes	❑ At time of exam
Confusion?	❑ No	❑ Yes	❑ At time of exam
Disoriented?	❑ No	❑ Yes	❑ At time of exam
Headache?	❑ No	❑ Yes	❑ At time of exam
Numbness or tingling?	❑ No	❑ Yes	❑ At time of exam
Fatigue or sleepiness?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

TOTAL # OF INJURIES INFLICTED BY THE SUSPECT

Total # of head injuries?

Total # of head injuries with **neuro** symptoms?

SUPPLEMENTAL HISTORY SECTION

_____

_____

_____

_____

_____

_____

Head Injury Addendum

- Head Injury Addendum to the OES 502 DV Form

  <u>Screen</u> for head injury

  <u>Screen</u> for symptoms of traumatic brain injury (TBI) as a result of the head injury

  May be used as an addendum to other OES forms

  Clinician SAFEs can Diagnose TBI

HEAD INJURY ADDENDUM

Patient Identification

Did the suspect hit you in the head with a part of his/her body, an object, a surface, or something else at any time during the assault?

❑ NO, skip this page
❑ YES, fill this page out

What did the suspect use to hit your head (e.g., body parts, objects, surface, something else)?

Approximately how many times did the suspect hit you in the head?

LOSS OF AWARENESS SYMPTOMS ASSOCIATED WITH HEAD TRAUMA

Did you lose consciousness?	❑ No	❑ Yes
Are there any gaps in your memory **before** the hit(s) to your head?	❑ No	❑ Yes
Are there any gaps in your memory **after** the hit(s) to your head?	❑ No	❑ Yes
Did your position change during the hits to your head (e.g., standing to laying)?	❑ No	❑ Yes
If yes, do you remember?	❑ No	❑ Yes

HEAD SYMPTOMS EXPERIENCED **AFTER** THE HEAD TRAUMA (indicate if present at time of exam)

Pain to the head (e.g., scalp, face)?	❑ No	❑ Yes	❑ At time of exam
Pain with eye movements?	❑ No	❑ Yes	❑ At time of exam
Pain to the nose?	❑ No	❑ Yes	❑ At time of exam
Pain to the lip/mouth/tongue?	❑ No	❑ Yes	❑ At time of exam
Pain with jaw opening/closing?	❑ No	❑ Yes	❑ At time of exam
Bruising to the head/face?	❑ No	❑ Yes	❑ At time of exam

https://tenor.com/view/ouch-saturday-night-live-gets-hit-head-shot-in-the-face-gif-19567830

Mechanism of Injury

+

Loss of Awareness +/- Neuro Symptoms

=

Traumatic Brain Injury

HEAD INJURY ADDENDUM

Patient Identification

Did the suspect hit you in the head with a part of his/her body, an object, a surface, or something else at any time during the assault?

❑ NO, skip this page
❑ YES, fill this page out

What did the suspect use to hit your head (e.g., body parts, objects, surface, something else)?

Approximately how many times did the suspect hit you in the head?

LOSS OF AWARENESS SYMPTOMS ASSOCIATED WITH HEAD TRAUMA

Did you lose consciousness?	❑ No	❑ Yes
Are there any gaps in your memory **before** the hit(s) to your head?	❑ No	❑ Yes
Are there any gaps in your memory **after** the hit(s) to your head?	❑ No	❑ Yes
Did your position change during the hits to your head (e.g., standing to laying)?	❑ No	❑ Yes
If yes, do you remember?	❑ No	❑ Yes

HEAD SYMPTOMS EXPERIENCED **AFTER** THE HEAD TRAUMA (indicate if present at time of exam)

Pain to the head (e.g., scalp, face)?	❑ No	❑ Yes	❑ At time of exam
Pain with eye movements?	❑ No	❑ Yes	❑ At time of exam
Pain to the nose?	❑ No	❑ Yes	❑ At time of exam
Pain to the lip/mouth/tongue?	❑ No	❑ Yes	❑ At time of exam
Pain with jaw opening/closing?	❑ No	❑ Yes	❑ At time of exam
Bruising to the head/face?	❑ No	❑ Yes	❑ At time of exam

HEAD SYMPTOMS EXPERIENCED **AFTER** THE HEAD TRAUMA (indicate if present at time of exam)

Pain to the head (e.g., scalp, face)?	❑ No	❑ Yes	❑ At time of exam
Pain with eye movements?	❑ No	❑ Yes	❑ At time of exam
Pain to the nose?	❑ No	❑ Yes	❑ At time of exam
Pain to the lip/mouth/tongue?	❑ No	❑ Yes	❑ At time of exam
Pain with jaw opening/closing?	❑ No	❑ Yes	❑ At time of exam
Bruising to the head/face?	❑ No	❑ Yes	❑ At time of exam
Swelling to the head/face?	❑ No	❑ Yes	❑ At time of exam
Deviated nose?	❑ No	❑ Yes	❑ At time of exam
Nose bleeding?	❑ No	❑ Yes	❑ At time of exam
Lip/mouth/tongue bleeding?	❑ No	❑ Yes	❑ At time of exam
Tooth pain?	❑ No	❑ Yes	❑ At time of exam
Chipped or loose teeth?	❑ No	❑ Yes	❑ At time of exam
Difficulty breathing (through nose of mouth)?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

NEUROLOGICAL (NEURO) SYMPTOMS EXPERIENCED **AFTER** THE HEAD TRAUMA (indicate if present at time of exam)

Problems with memory, recall, concentration? If yes, give examples. Examples: _____	❑ No	❑ Yes	❑ At time of exam
Vision changes or problems?	❑ No	❑ Yes	❑ At time of exam
Photosensitivity?	❑ No	❑ Yes	❑ At time of exam
Hearing changes or problems?	❑ No	❑ Yes	❑ At time of exam
Dizziness or dizzy spells?	❑ No	❑ Yes	❑ At time of exam
Feeling faint?	❑ No	❑ Yes	❑ At time of exam
Lightheaded?	❑ No	❑ Yes	❑ At time of exam
Confusion?	❑ No	❑ Yes	❑ At time of exam
Disoriented?	❑ No	❑ Yes	❑ At time of exam
Headache?	❑ No	❑ Yes	❑ At time of exam
Numbness or tingling?	❑ No	❑ Yes	❑ At time of exam
Fatigue or sleepiness?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

https://giphy.com/gifs/jon-stewart-the-daily-show-5aLrlDiJPMPFS

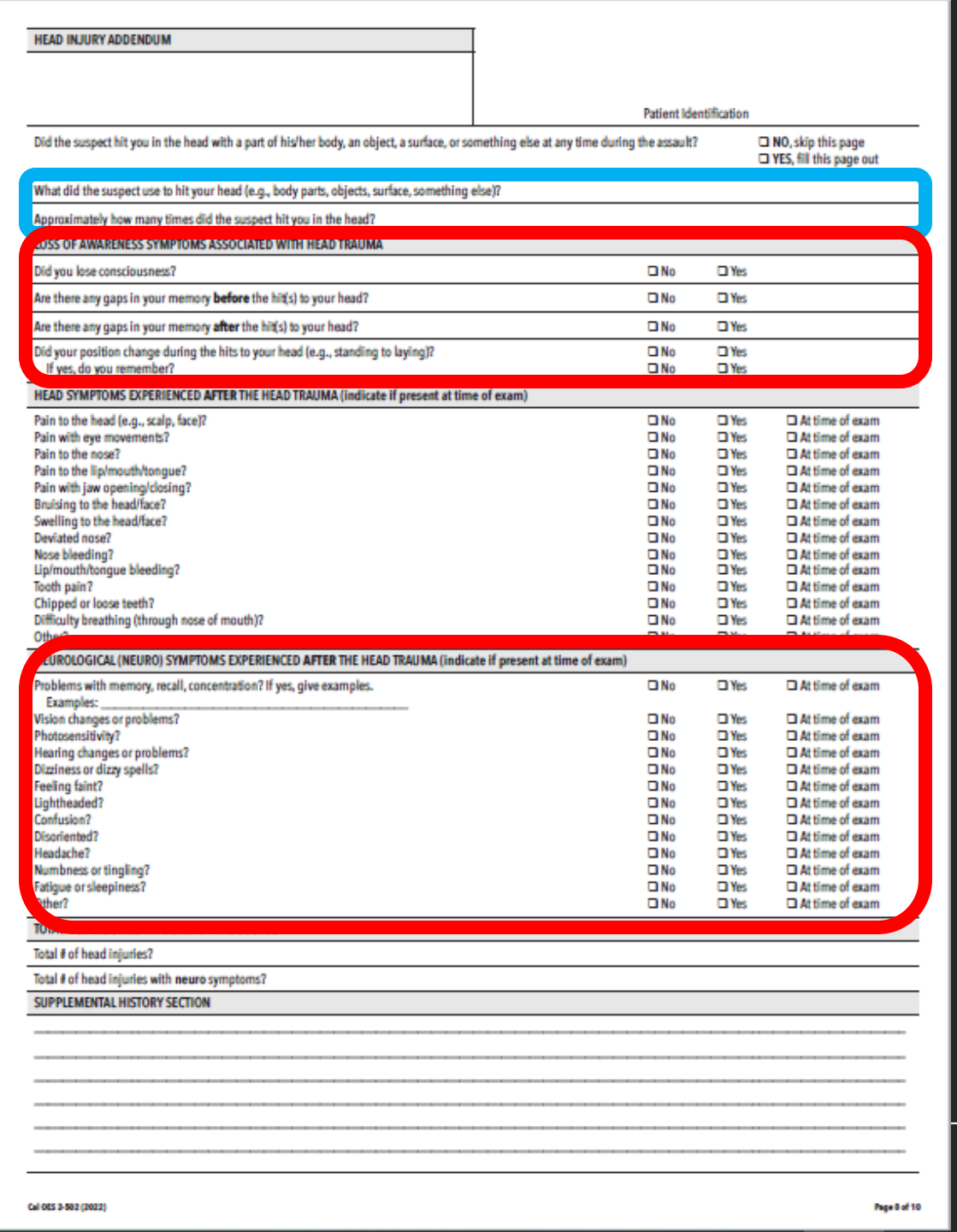
Mechanism of Injury

+

Loss of Awareness +/- Neuro Symptoms

=

Traumatic Brain Injury



HEAD INJURY ADDENDUM

Patient Identification

Did the suspect hit you in the head with a part of his/her body, an object, a surface, or something else at any time during the assault? ❑ NO, skip this page ❑ YES, fill this page out

What did the suspect use to hit your head (e.g., body parts, objects, surface, something else)?

Approximately how many times did the suspect hit you in the head?

LOSS OF AWARENESS SYMPTOMS ASSOCIATED WITH HEAD TRAUMA

Did you lose consciousness?	❑ No	❑ Yes
Are there any gaps in your memory **before** the hit(s) to your head?	❑ No	❑ Yes
Are there any gaps in your memory **after** the hit(s) to your head?	❑ No	❑ Yes
Did your position change during the hits to your head (e.g., standing to laying)?	❑ No	❑ Yes
If yes, do you remember?	❑ No	❑ Yes

HEAD SYMPTOMS EXPERIENCED **AFTER** THE HEAD TRAUMA (indicate if present at time of exam)

Pain to the head (e.g., scalp, face)?	❑ No	❑ Yes	❑ At time of exam
Pain with eye movements?	❑ No	❑ Yes	❑ At time of exam
Pain to the nose?	❑ No	❑ Yes	❑ At time of exam
Pain to the lip/mouth/tongue?	❑ No	❑ Yes	❑ At time of exam
Pain with jaw opening/closing?	❑ No	❑ Yes	❑ At time of exam
Bruising to the head/face?	❑ No	❑ Yes	❑ At time of exam
Swelling to the head/face?	❑ No	❑ Yes	❑ At time of exam
Deviated nose?	❑ No	❑ Yes	❑ At time of exam
Nose bleeding?	❑ No	❑ Yes	❑ At time of exam
Lip/mouth/tongue bleeding?	❑ No	❑ Yes	❑ At time of exam
Tooth pain?	❑ No	❑ Yes	❑ At time of exam
Chipped or loose teeth?	❑ No	❑ Yes	❑ At time of exam
Difficulty breathing (through nose of mouth)?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

NEUROLOGICAL (NEURO) SYMPTOMS EXPERIENCED **AFTER** THE HEAD TRAUMA (indicate if present at time of exam)

Problems with memory, recall, concentration? If yes, give examples. Examples: _____	❑ No	❑ Yes	❑ At time of exam
Vision changes or problems?	❑ No	❑ Yes	❑ At time of exam
Photosensitivity?	❑ No	❑ Yes	❑ At time of exam
Hearing changes or problems?	❑ No	❑ Yes	❑ At time of exam
Dizziness or dizzy spells?	❑ No	❑ Yes	❑ At time of exam
Feeling faint?	❑ No	❑ Yes	❑ At time of exam
Lightheaded?	❑ No	❑ Yes	❑ At time of exam
Confusion?	❑ No	❑ Yes	❑ At time of exam
Disoriented?	❑ No	❑ Yes	❑ At time of exam
Headache?	❑ No	❑ Yes	❑ At time of exam
Numbness or tingling?	❑ No	❑ Yes	❑ At time of exam
Fatigue or sleepiness?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

TOTAL

Total # of head injuries?

Total # of head injuries with **neuro** symptoms?

SUPPLEMENTAL HISTORY SECTION

Cal OES 2-502 (2022)

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Head Injury Addendum

Mechanism of Injury

+

Loss of Awareness +/- Neuro Symptoms

=

Traumatic Brain Injury

=

Great Bodily Injury (GBI)

Strangulation Hypoxia Anoxia Symptom TBI Assessment (**SHASTA**)

Strangulation Hypoxia Anoxia Symptom TBI Assessment (SHASTA)

Victim Name:_____ **Suspect Name:** _____
Victim DOB: _____ **Suspect DOB or Age:** _____
Date of strangulation:_____ **Children Name/DOB:**_____

What was happening at the time (driving, at home, arguing, etc.)? _____
What did the suspect strangle you with (hands, chokehold, cord, etc.)? _____
Were you able to breathe? If yes were you able to speak? What did you say? _____
Did the suspect say anything while strangling you?_____
Did the suspect do anything else (hit, kick, headbutt, etc.) while strangling you?_____
Were you able to do anything to physically stop the strangulation? If yes, what? _____
What did you think during the strangulation? _____
Was there any substance use (consensual or forced) prior to or after the strangulation? If so what?_____

SUPPLEMENTAL HISTORY SECTION

_____
_____
_____
_____
_____
_____

NECK SYMPTOMS experienced DURING the strangulation

Unable to Breathe	
Difficulty Breathing	
Neck Pain	

BRAIN HYPOXIA SYMPTOMS experienced DURING the strangulation

Vision Changes? Tunnel, spot, darkness, etc.	
Hearing loss or changes? Ringing, vibration, etc.	
Dizziness	
Feeling Faint	
Light headed	
Disoriented	
Headache	
Other	

BRAIN ANOXIA SYMPTOMS experienced DURING the strangulation

Did you lose consciousness?	
From the start of the hypoxic symptoms to the end of the strangulation, do you remember every single moment or is there a gap in your memory?	
Did your position change during the strangulation (standing to laying, etc)? If yes, do you remember?	
Do you remember the suspect letting go?	
After the strangulation, did you notice you had urinated or defecated? If yes, do you remember?	

Shasta Community Forensic Care Team 2020
Form 002

UPPER BODY SYMPTOMS experienced AFTER the strangulation. Indicate if still present at the time of exam

	After	Current
Neck Pain		
Difficulty breathing		
Pain with breathing		
Coughing? With or without blood		
Raspy/Horse Voice/Voice Changes		
Pain with speaking		
Trouble swallowing		
Painful swallowing		
Sore Throat		
Nausea		
Dry Heaving/Vomiting		
Other		

NEUROLOGICAL (NEURO) SYMPTOMS experienced AFTER the Strangulation. Indicate if still present at the time of exam

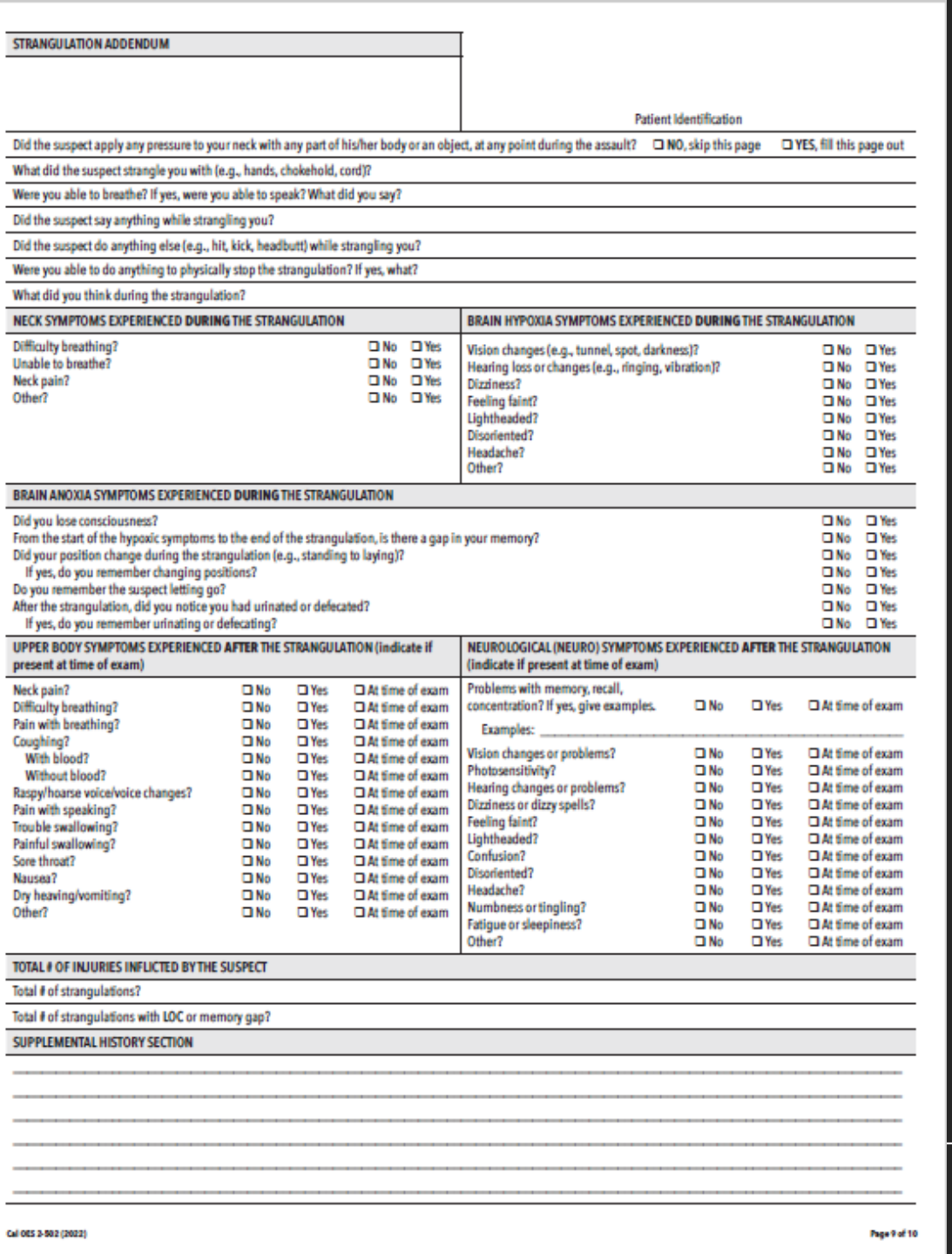
	After	Current
Problems with Memory, Recall, Concentration? If yes Give Examples		
Vision Changes/Problems		
Photosensitivity		
Hearing Changes/Problems		
Dizziness/Dizzy Spells		
Feeling Faint		
Light Headed		
Disoriented		
Headache		
Numbness/Tingling		
Other		

HEAD INJURIES BEFORE, DURING, or AFTER the strangulation

Did the suspect hit you in the head? If yes with what?	
How many times did the suspect hit you in the head?	
(**NEURO**) Did any of the hits cause you to feel dizzy, faint, disoriented, confused, or nauseous?	
(**NEURO**) Did any of the hits cause you to have vision changes (spots, stars, tunneling, etc.) or hearing changes (ringing, vibration, etc.)?	
(**NEURO**) Did any of the hits cause LOC?	

TOTAL # OF INJURIES INFLICTED BY THE SUSPECT

Total # of strangulations	
Total # of strangulations w/ LOC/memory gap	
Total # of head Injuries	
Total # of head injuries w/ NEURO symptoms	
H/o forced sexual intercourse? When was the last time? How many total?	
Other Injuries:	



STRANGULATION ADDENDUM

Patient Identification

Did the suspect apply any pressure to your neck with any part of his/her body or an object, at any point during the assault? ❑ NO, skip this page ❑ YES, fill this page out

What did the suspect strangle you with (e.g., hands, chokehold, cord)?

Were you able to breathe? If yes, were you able to speak? What did you say?

Did the suspect say anything while strangling you?

Did the suspect do anything else (e.g., hit, kick, headbutt) while strangling you?

Were you able to do anything to physically stop the strangulation? If yes, what?

What did you think during the strangulation?

NECK SYMPTOMS EXPERIENCED DURING THE STRANGULATION

Difficulty breathing?	❑ No	❑ Yes
Unable to breathe?	❑ No	❑ Yes
Neck pain?	❑ No	❑ Yes
Other?	❑ No	❑ Yes

BRAIN HYPOXIA SYMPTOMS EXPERIENCED DURING THE STRANGULATION

Vision changes (e.g., tunnel, spot, darkness)?	❑ No	❑ Yes
Hearing loss or changes (e.g., ringing, vibration)?	❑ No	❑ Yes
Dizziness?	❑ No	❑ Yes
Feeling faint?	❑ No	❑ Yes
Lightheaded?	❑ No	❑ Yes
Disoriented?	❑ No	❑ Yes
Headache?	❑ No	❑ Yes
Other?	❑ No	❑ Yes

BRAIN ANOXIA SYMPTOMS EXPERIENCED DURING THE STRANGULATION

Did you lose consciousness?	❑ No	❑ Yes
From the start of the hypoxic symptoms to the end of the strangulation, is there a gap in your memory?	❑ No	❑ Yes
Did your position change during the strangulation (e.g., standing to laying)?	❑ No	❑ Yes
If yes, do you remember changing positions?	❑ No	❑ Yes
Do you remember the suspect letting go?	❑ No	❑ Yes
After the strangulation, did you notice you had urinated or defecated?	❑ No	❑ Yes
If yes, do you remember urinating or defecating?	❑ No	❑ Yes

UPPER BODY SYMPTOMS EXPERIENCED AFTER THE STRANGULATION (indicate if present at time of exam)

Neck pain?	❑ No	❑ Yes	❑ At time of exam
Difficulty breathing?	❑ No	❑ Yes	❑ At time of exam
Pain with breathing?	❑ No	❑ Yes	❑ At time of exam
Coughing?	❑ No	❑ Yes	❑ At time of exam
With blood?	❑ No	❑ Yes	❑ At time of exam
Without blood?	❑ No	❑ Yes	❑ At time of exam
Raspy/hoarse voice/voice changes?	❑ No	❑ Yes	❑ At time of exam
Pain with speaking?	❑ No	❑ Yes	❑ At time of exam
Trouble swallowing?	❑ No	❑ Yes	❑ At time of exam
Painful swallowing?	❑ No	❑ Yes	❑ At time of exam
Sore throat?	❑ No	❑ Yes	❑ At time of exam
Nausea?	❑ No	❑ Yes	❑ At time of exam
Dry heaving/vomiting?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

NEUROLOGICAL (NEURO) SYMPTOMS EXPERIENCED AFTER THE STRANGULATION (indicate if present at time of exam)

Problems with memory, recall, concentration? If yes, give examples.	❑ No	❑ Yes	❑ At time of exam
Examples: _____			
Vision changes or problems?	❑ No	❑ Yes	❑ At time of exam
Photosensitivity?	❑ No	❑ Yes	❑ At time of exam
Hearing changes or problems?	❑ No	❑ Yes	❑ At time of exam
Dizziness or dizzy spells?	❑ No	❑ Yes	❑ At time of exam
Feeling faint?	❑ No	❑ Yes	❑ At time of exam
Lightheaded?	❑ No	❑ Yes	❑ At time of exam
Confusion?	❑ No	❑ Yes	❑ At time of exam
Disoriented?	❑ No	❑ Yes	❑ At time of exam
Headache?	❑ No	❑ Yes	❑ At time of exam
Numbness or tingling?	❑ No	❑ Yes	❑ At time of exam
Fatigue or sleepiness?	❑ No	❑ Yes	❑ At time of exam
Other?	❑ No	❑ Yes	❑ At time of exam

TOTAL # OF INJURIES INFLICTED BY THE SUSPECT

Total # of strangulations?

Total # of strangulations with LOC or memory gap?

SUPPLEMENTAL HISTORY SECTION

Cal OES 2-502 (2022) Page 9 of 10

Strangulation Addendum

- Strangulation Addendum to the OES 502 DV Form

  <u>Screen</u> for strangulation

  <u>Screen</u> for symptoms of traumatic brain injury (TBI) as a result of the strangulation

  May be used as an addendum to other OES forms

  SANEs can Screen for TBI

  Clinician SAFEs can Diagnose TBI

STRANGULATION ADDENDUM

Patient Identification

Did the suspect apply any pressure to your neck with any part of his/her body or an object, at any point during the assault? ❑ NO, skip this page ❑ YES, fill this page out

What did the suspect strangle you with (e.g., hands, chokehold, cord)?

Were you able to breathe? If yes, were you able to speak? What did you say?

Did the suspect say anything while strangling you?

Did the suspect do anything else (e.g., hit, kick, headbutt) while strangling you?

Were you able to do anything to physically stop the strangulation? If yes, what?

What did you think during the strangulation?

NECK SYMPTOMS EXPERIENCED **DURING** THE STRANGULATION

Unable to breathe?	❑ No	❑ Yes
Difficulty breathing?	❑ No	❑ Yes
Neck pain?	❑ No	❑ Yes
Other?	❑ No	❑ Yes

BRAIN HYPOXIA SYMPTOMS EXPERIENCED **DURING** THE STRANGULATION

Vision changes (e.g., tunnel, spot, darkness)?	❑ No	❑ Yes
Hearing loss or changes (e.g., ringing, vibration)?	❑ No	❑ Yes
Dizziness?	❑ No	❑ Yes
Feeling faint?	❑ No	❑ Yes
Lightheaded?	❑ No	❑ Yes
Disoriented?	❑ No	❑ Yes
Headache?	❑ No	❑ Yes
Other?	❑ No	❑ Yes

BRAIN ANOXIA SYMPTOMS EXPERIENCED **DURING** THE STRANGULATION

https://giphy.com/gifs/starwars-movie-star-wars-xTIlzPbiiuTeaJ9U3u

Mechanism of Injury

+

Brain Hypoxia + Brain Anoxia

Symptoms

=

Traumatic Brain Injury

Patient Identification

Did the suspect apply any pressure to your neck with any part of his/her body or an object, at any point during the assault? ❑ **NO**, skip this page ❑ **YES**, fill this page out

What did the suspect strangle you with (e.g., hands, chokehold, cord)?

Were you able to breathe? If yes, were you able to speak? What did you say?

Did the suspect say anything while strangling you?

Did the suspect do anything else (e.g., hit, kick, headbutt) while strangling you?

Were you able to do anything to physically stop the strangulation? If yes, what?

What did you think during the strangulation?

NECK SYMPTOMS EXPERIENCED **DURING** THE STRANGULATION

Difficulty breathing?	❑ No	❑ Yes
Unable to breathe?	❑ No	❑ Yes
Neck pain?	❑ No	❑ Yes
Other?	❑ No	❑ Yes

BRAIN HYPOXIA SYMPTOMS EXPERIENCED **DURING** THE STRANGULATION

Vision changes (e.g., tunnel, spot, darkness)?	❑ No	❑ Yes
Hearing loss or changes (e.g., ringing, vibration)?	❑ No	❑ Yes
Dizziness?	❑ No	❑ Yes
Feeling faint?	❑ No	❑ Yes
Lightheaded?	❑ No	❑ Yes
Disoriented?	❑ No	❑ Yes
Headache?	❑ No	❑ Yes
Other?	❑ No	❑ Yes

BRAIN ANOXIA SYMPTOMS EXPERIENCED **DURING** THE STRANGULATION

Did you lose consciousness?	❑ No	❑ Yes
From the start of the hypoxic symptoms to the end of the strangulation, is there a gap in your memory?	❑ No	❑ Yes
Did your position change during the strangulation (e.g., standing to laying)?	❑ No	❑ Yes
If yes, do you remember changing positions?	❑ No	❑ Yes
Do you remember the suspect letting go?	❑ No	❑ Yes
After the strangulation, did you notice you had urinated or defecated?	❑ No	❑ Yes
If yes, do you remember urinating or defecating?	❑ No	❑ Yes

Mechanism of Injury

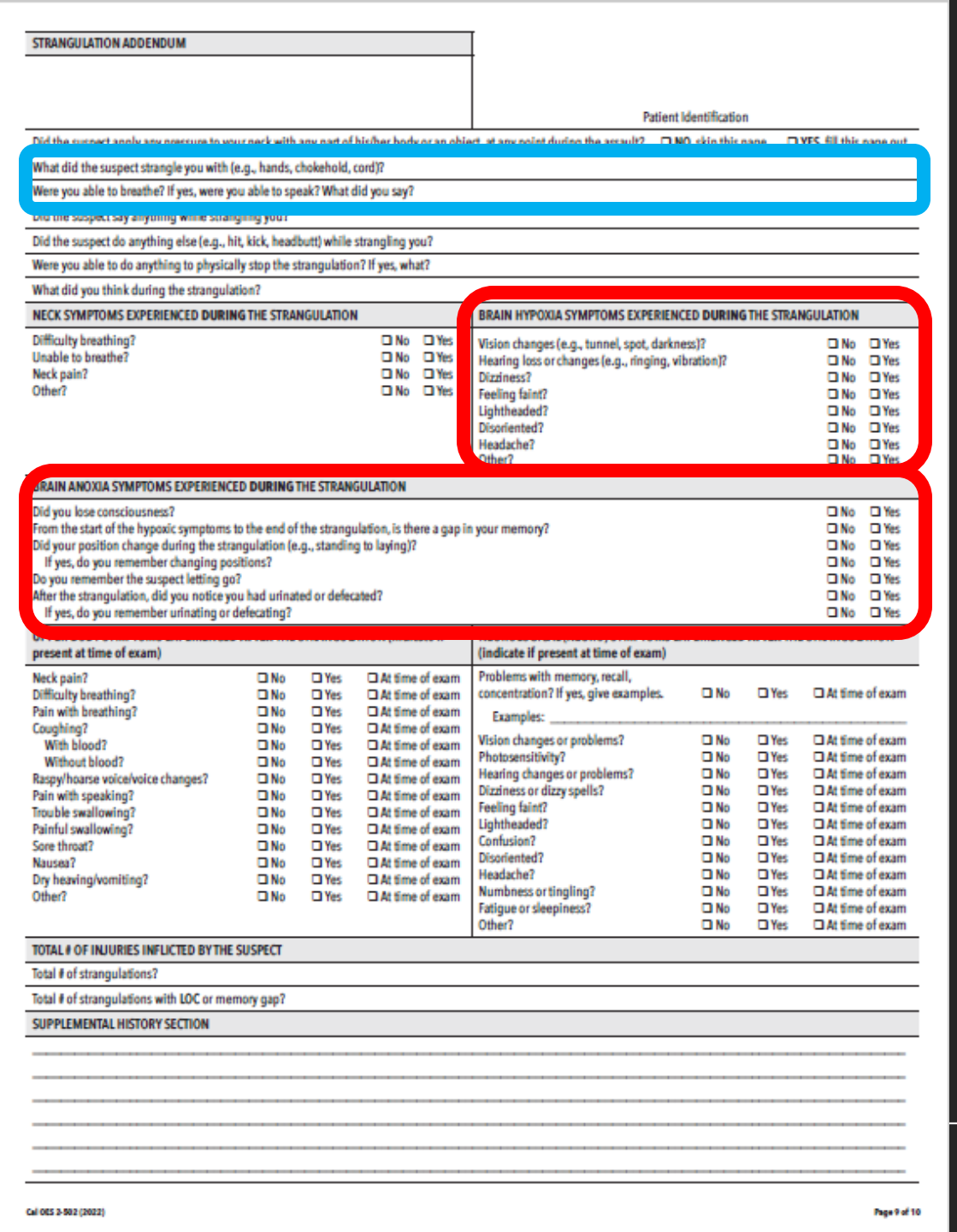
+

Brain Hypoxia + Brain Anoxia Symptoms

=

Traumatic Brain Injury

https://media.giphy.com/media/77BjVzSxthFSw/giphy.gif



STRANGULATION ADDENDUM

Patient Identification

What did the suspect strangle you with (e.g., hands, chokehold, cord)?

Were you able to breathe? If yes, were you able to speak? What did you say?

Did the suspect do anything else (e.g., hit, kick, headbutt) while strangling you?

Were you able to do anything to physically stop the strangulation? If yes, what?

What did you think during the strangulation?

NECK SYMPTOMS EXPERIENCED DURING THE STRANGULATION

Difficulty breathing?	☐ No	☐ Yes
Unable to breathe?	☐ No	☐ Yes
Neck pain?	☐ No	☐ Yes
Other?	☐ No	☐ Yes

BRAIN HYPOXIA SYMPTOMS EXPERIENCED DURING THE STRANGULATION

Vision changes (e.g., tunnel, spot, darkness)?	☐ No	☐ Yes
Hearing loss or changes (e.g., ringing, vibration)?	☐ No	☐ Yes
Dizziness?	☐ No	☐ Yes
Feeling faint?	☐ No	☐ Yes
Lightheaded?	☐ No	☐ Yes
Disoriented?	☐ No	☐ Yes
Headache?	☐ No	☐ Yes
Other?	☐ No	☐ Yes

BRAIN ANOXIA SYMPTOMS EXPERIENCED DURING THE STRANGULATION

Did you lose consciousness?	☐ No	☐ Yes
From the start of the hypoxic symptoms to the end of the strangulation, is there a gap in your memory?	☐ No	☐ Yes
Did your position change during the strangulation (e.g., standing to laying)?	☐ No	☐ Yes
If yes, do you remember changing positions?	☐ No	☐ Yes
Do you remember the suspect letting go?	☐ No	☐ Yes
After the strangulation, did you notice you had urinated or defecated?	☐ No	☐ Yes
If yes, do you remember urinating or defecating?	☐ No	☐ Yes

present at time of exam)

Neck pain?	☐ No	☐ Yes	☐ At time of exam
Difficulty breathing?	☐ No	☐ Yes	☐ At time of exam
Pain with breathing?	☐ No	☐ Yes	☐ At time of exam
Coughing?	☐ No	☐ Yes	☐ At time of exam
With blood?	☐ No	☐ Yes	☐ At time of exam
Without blood?	☐ No	☐ Yes	☐ At time of exam
Raspy/hoarse voice/voice changes?	☐ No	☐ Yes	☐ At time of exam
Pain with speaking?	☐ No	☐ Yes	☐ At time of exam
Trouble swallowing?	☐ No	☐ Yes	☐ At time of exam
Painful swallowing?	☐ No	☐ Yes	☐ At time of exam
Sore throat?	☐ No	☐ Yes	☐ At time of exam
Nausea?	☐ No	☐ Yes	☐ At time of exam
Dry heaving/vomiting?	☐ No	☐ Yes	☐ At time of exam
Other?	☐ No	☐ Yes	☐ At time of exam

(indicate if present at time of exam)

Problems with memory, recall, concentration? If yes, give examples.	☐ No	☐ Yes	☐ At time of exam
Examples:			
Vision changes or problems?	☐ No	☐ Yes	☐ At time of exam
Photosensitivity?	☐ No	☐ Yes	☐ At time of exam
Hearing changes or problems?	☐ No	☐ Yes	☐ At time of exam
Dizziness or dizzy spells?	☐ No	☐ Yes	☐ At time of exam
Feeling faint?	☐ No	☐ Yes	☐ At time of exam
Lightheaded?	☐ No	☐ Yes	☐ At time of exam
Confusion?	☐ No	☐ Yes	☐ At time of exam
Disoriented?	☐ No	☐ Yes	☐ At time of exam
Headache?	☐ No	☐ Yes	☐ At time of exam
Numbness or tingling?	☐ No	☐ Yes	☐ At time of exam
Fatigue or sleepiness?	☐ No	☐ Yes	☐ At time of exam
Other?	☐ No	☐ Yes	☐ At time of exam

TOTAL # OF INJURIES INFLICTED BY THE SUSPECT

Total # of strangulations?

Total # of strangulations with LOC or memory gap?

SUPPLEMENTAL HISTORY SECTION

Cal OES 2-502 (2022)

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Strangulation Addendum

Mechanism of Injury

+

Brain Hypoxia + Brain Anoxia Symptoms

=

Traumatic Brain Injury

=

Great Bodily Injury (GBI)

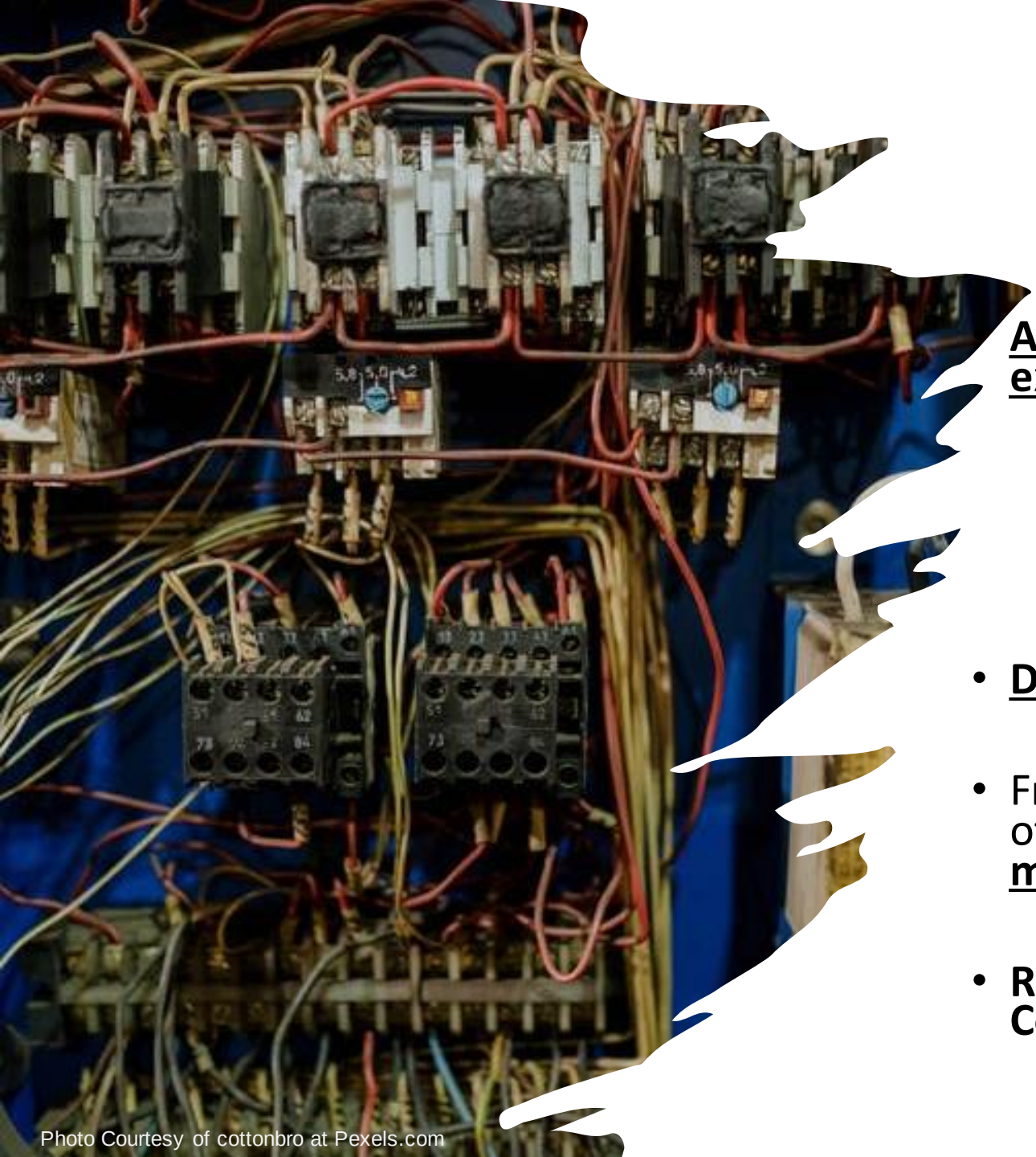


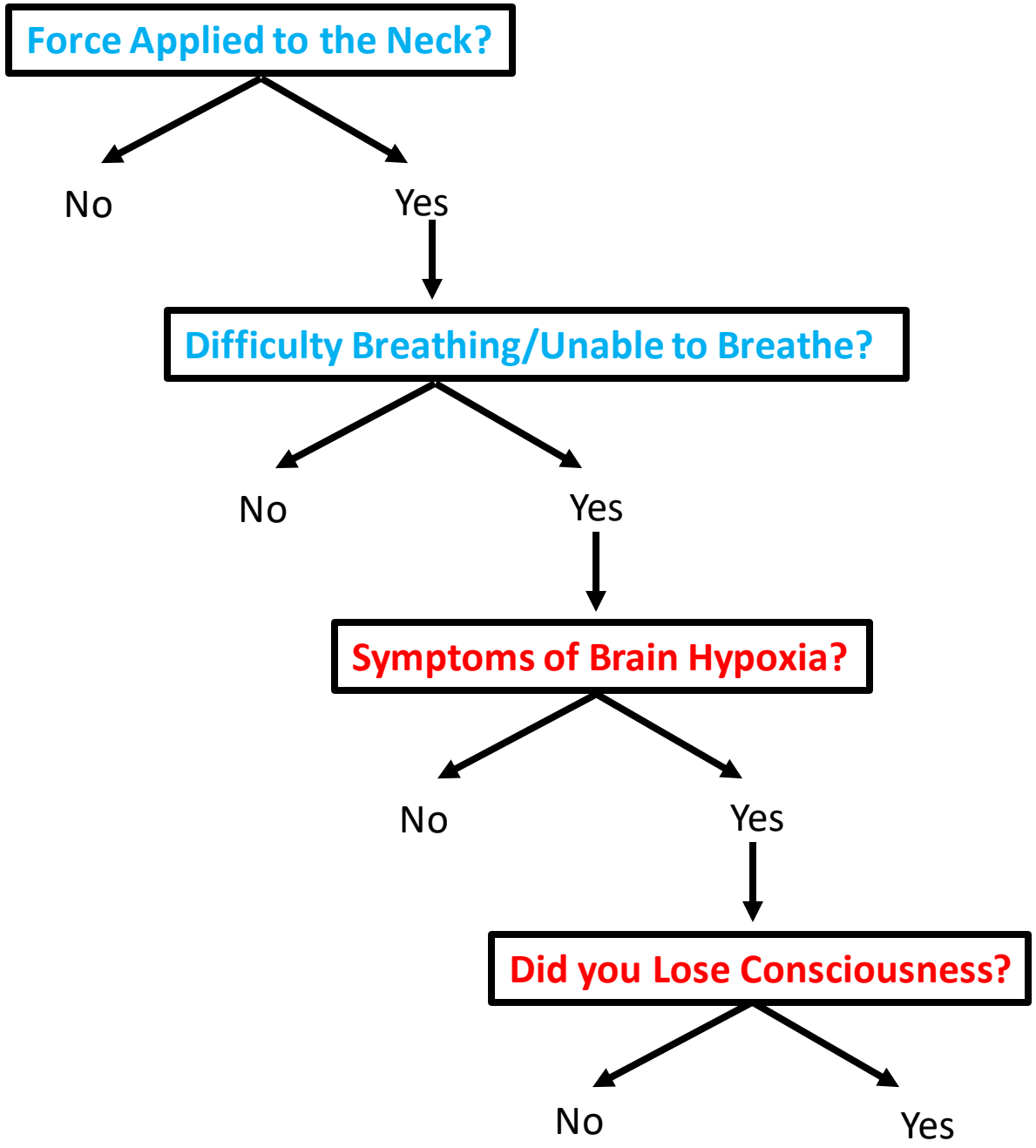
Photo Courtesy of cottonbro at Pexels.com

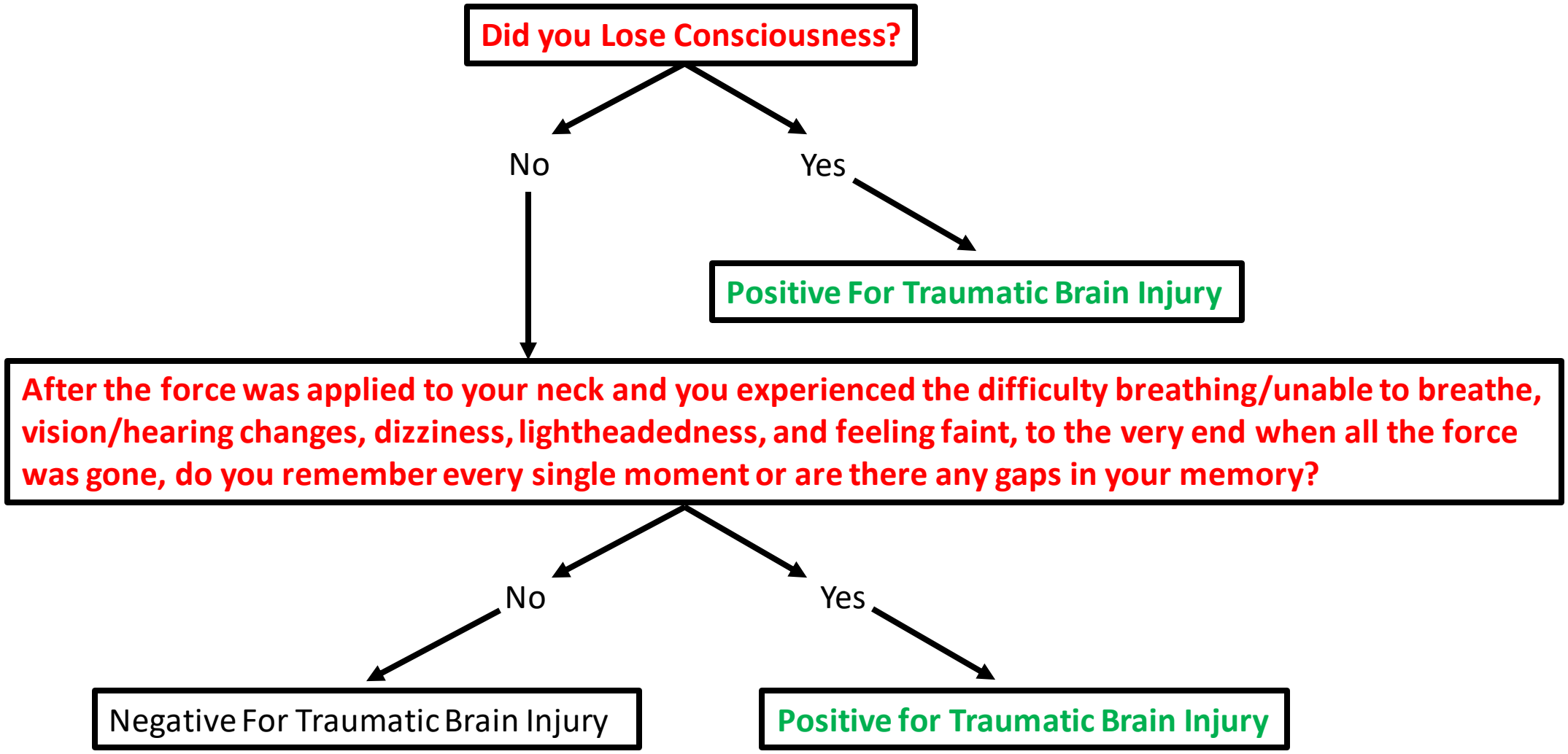
About that Memory Gap…

<u>After the strangulation started did you experience…</u>

- Vision changes (blurred, spots, stars, black curtain, tunnel)
- Hearing Changes (ringing, vibration)
- Dizziness
- Feeling Faint

- **<u>Did you lose consciousness?</u>**
  - **<u>Yes = TBI</u>**
- From the start of those symptoms until all the end of the strangulation, is there a **<u>gap in your memory?</u>**
  - **<u>Yes = TBI</u>**
- **Remember: Gap in Memory = Loss of Consciousness = Anoxic Brain Injury = TBI**


Force Applied to the Neck?
No
Yes
Difficulty Breathing/Unable to Breathe?
No
Yes
Symptoms of Brain Hypoxia?
No
Yes
Did you Lose Consciousness?
No
Yes


Did you Lose Consciousness?
No
Yes
Positive For Traumatic Brain Injury
After the force was applied to your neck and you experienced the difficulty breathing/unable to breathe, vision/hearing changes, dizziness, lightheadedness, and feeling faint, to the very end when all the force was gone, do you remember every single moment or are there any gaps in your memory?
No
Yes
Negative For Traumatic Brain Injury
Positive for Traumatic Brain Injury

Establishing the Gap….

- John Brenkus strangled by Gina Carano

Establishing the Gap….

- But how often is a patient unable to remember they lost consciousness during a strangulation?

- “What happened?”
- “When?”
- “You said I’m going to choke you out and that’s the last thing I remember.”
- “I didn’t even think that we went.”

LOC and Memory Loss During Non-Fatal Strangulation

- Unpublished Data
- 191 unique patients
- 267 strangulations
- 145 reported a gap in memory
  - 74 reported LOC (51%)
  - 71 denied LOC (49%)
- <u>Half of patients who experienced LOC didn't remember it</u>

Photo courtesy of shutterstock_amnesia.jpg (1000×682) (psychologytoday.com)

Understanding the Immediate, Delayed, and Long-term Consequences of Strangulation

v10.31.22

TRAINING INSTITUTE on STRANGULATION PREVENTION
strangulationtraininginstitute.com

RECOMMENDATIONS FOR THE **MEDICAL/RADIOGRAPHIC EVALUATION** OF ACUTE ADULT/ADOLESCENT, **NON/NEAR FATAL STRANGULATION**

Prepared by **Bill Smock, MD; Bill Green, MD;** and **Sally Sturgeon, DNP, SANE-A**

Endorsed by the **National Medical Advisory Committee**:
Cathy Baldwin, MD; Ralph Riviello, MD; Sean Dugan, MD; Steve Stapczynski, MD; Ellen Tailiaferro, MD; Michael Weaver, MD

GOALS:

1. Evaluate for acute medical conditions requiring immediate management/stabilization
2. Evaluate carotid and vertebral arteries for injuries (dissection/thrombosis)
3. Evaluate airway structures and other bony/cartilaginous/soft tissue neck structures

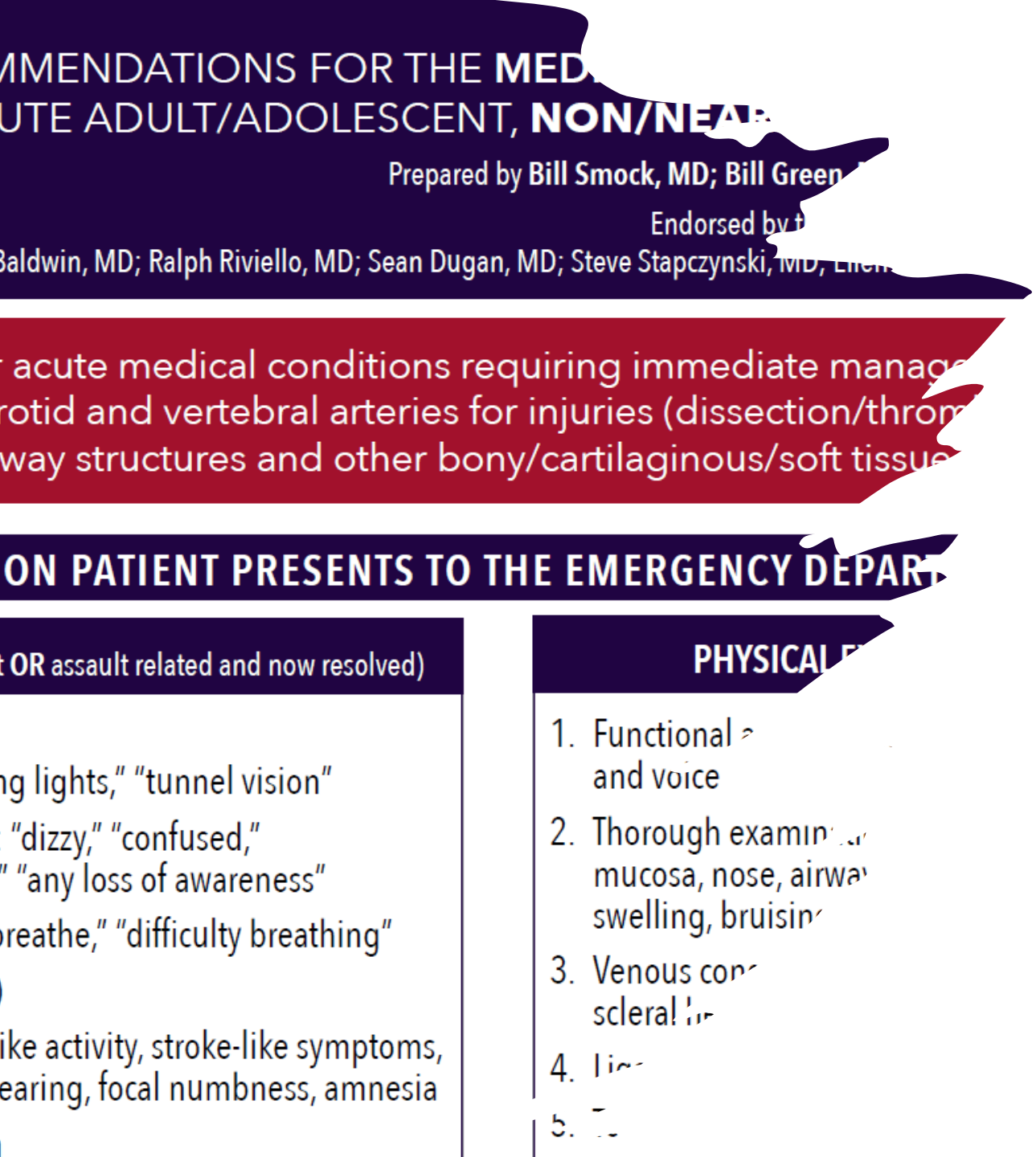
STRANGULATION PATIENT PRESENTS TO THE EMERGENCY DEPARTMENT

HISTORY (ANY of the following; current OR assault related and now resolved)

1. Loss of consciousness
2. Visual changes: "spots," "flashing lights," "tunnel vision"
3. History of altered mental status: "dizzy," "confused," "lightheaded," "loss of memory," "any loss of awareness"
4. Breathing changes: "I couldn't breathe," "difficulty breathing"
5. Incontinence (bladder or bowel)
6. Neurologic symptoms: seizure-like activity, stroke-like symptoms, headache, tinnitus, decreased hearing, focal numbness, amnesia

PHYSICAL EXAM (ANY Abnormality)

1. Functional assessment of breathing, swallowing, and voice
2. Thorough examination of neck, eyes, TMs, oral mucosa, nose, airway, upper torso for: tenderness, swelling, bruising, abrasions, crepitance, bruit
3. Venous congestion/petechial hemorrhages/ scleral hemorrhages
4. Ligature mark = HIGH RISK



Imaging

Diagnostics to screen for Carotid Artery Dissection

- **<u>CTA Neck is the Gold Standard</u>**
- US may miss the proximal internal carotid and will miss the vertebral arteries
- MRA less sensitive than CTA but acceptable

What does our friendly neighborhood vascular surgeon say?

Practice Management Guidelines
- Minimal Strangulation/Hanging Patients
- **2-9% BCVI**

Large BCVI Cohorts
- Minimal Strangulation/Hanging Patients
- **1.1-7.6% BCVI**

Small Strangulation Cohorts
- All Strangulation/Hanging Patients
- **1-2% BCVI** (all strangulation patients)
    - Excluding MacDonald

BOTTOM LINE: Liberal/Universal CTA Screening Protocol is recommended on all adult patients

Photo courtesy of Keenan Constance at Pexels.com

RECOMMENDATIONS for the MEDICAL/RADIOGRAPHIC EVALUATION of the PREGNANT ADULT PATIENT WITH NON-FATAL STRANGULATION

Prepared by Michael Weaver, MD and Barbra Bachmeier, JD, MSN, NP-C

Endorsed by the **National Medical Advisory Committee**: Bll Smock, MD, Chair; Cathy Baldwin-Johnson, MD; William Green, MD; Dean Hawley, MD; Sally Henin, MD; Ralph Riviello, MD; Heather Rozzi, MD; Steve Stapczynski, MD; Ellen Tailiaferro, MD

GOALS:

1. **Evaluate carotid and vertebral arteries for injuries**
2. **Evaluate bony/cartilaginous and soft tissue neck structures**
3. **Evaluate brain for anoxic injury**
4. **Evaluate/Monitor the fetus**

Pregnant Strangulation patient presents to the Emergency Department

Evaluate per institution Trauma Pregnancy Protocol/ OB Consultation

History of and/or physical exam with ANY of the following:

- **Loss of consciousness** (anoxic brain injury)
- **Visual changes**: “spots”, “flashing light”, “tunnel vision”
- **Facial, intraoral or conjunctival petechial hemorrhage**
- **Ligature mark or neck contusions**
- **Soft tissue neck injury/swelling of the neck/cartoid tenderness**
- **Incontinence** (bladder and/or bowel from anoxic injury)

History of and/or physical exam with:

- **No LOC** (anoxic brain injury)
- **No visual changes**: “spots”, “flashing light”, “tunnel vision”
- **No petechial hemorrhage**
- **No soft tissue trauma to the neck**
- **No dyspnea, dysphonia or odynophagia**
- **No neurological signs or symptoms** (i.e.

Recommended Radiographic Studies to Rule Out Life-Threatening Injuries*

(including rare delayed presentations of up to 2 years)

- **CT Angio of carotid/vertebral arteries** - (***GOLD STANDARD*** for evaluation of vessels and bony/cartilaginous structures, less sensitive for soft tissue trauma. Safe for all stages of pregnancy and/or lactating patients.) ***or***
- **CT neck with contrast** - (less sensitive than CT Angio for vessels, good for bony/ cartilaginous structures. Safe for all stages of pregnancy and/or lactating patients.) ***or***
- **MRIs without gadolinium**:
  - **MRA of neck** (less sensitive than CT Angio for vessels) ***or***
  - **MRI of neck** (less sensitive than CT Angio for vessels and bony/cartilaginous structures, best study for soft tissue trauma) ***or***
  - **MRI/MRA of brain** (most sensitive for anoxic brain injury, stroke symptoms and intercerebral petechial hemorrhage)

  Safe to perform during all trimesters for pregnant and/or lactating patients.
- **MRIs with gadolinium** (***NOT RECOMMENDED:*** Use should be limited to situations in which the benefits clearly outweigh possible risks.)
- **Carotid Doppler Ultrasound** (***NOT RECOMMENDED:*** Least sensitive study, unable to adequately evaluate vertebral arteries or proximal internal carotid.)

Emergency Evaluation of Nonfatal Strangulation Patients: A Commentary on Controversy and Care Priorities

May be used by **YOU** to educate your medical staff on the importance of screening all strangled patients with a CTA

rs: Michelle Patch, PhD, MSN, APRN-CNS, ACNS-BC, Sean Dugan, MD, FAAP, SAFE, William Green, MD, FACEP, an
. Anderson, PhD, RN, SANE-A, Baltimore, MD; Sacramento, CA; San Diego, CA; Redding, CA; and University Park, P

gulation–external pressure applied to the neck compromises blood flow, air flow, or both–is a non occurrence in the setting of interpersonal As emergency nurses and prescribers have reasingly aware of the prevalence and negative comes of strangulation, practice and research begun to explore best practices for evaluation ients.

issue of the *Journal of Emergency Nursing*, t al[3] describe characteristics of strangulation aluated in a sexual assault nurse examiner ogram. Findings presented in this retrospective

within 5 to 10 seconds and death in minutes,[1,6] th ical need for coordinated emergency evaluation response is clear. This manuscript adds to the gr literature on strangulation and highlights 2 imp considerations for emergency care of these patients: priate diagnostic imaging evaluation and variabil clinical documentation.

The Mechanism of Strangulation

Blunt force trauma to the neck, such as strangulatio

It's OK to Order Angiogra Strangulation Victims

By Gary Gaddis, MD, PhD, FACEP, FIFEM; William M. Green, MD, FACEP; Ralph Riviello, M Weaver, MD, FACEP, CDM | on June 14, 2022 | 0 Comment

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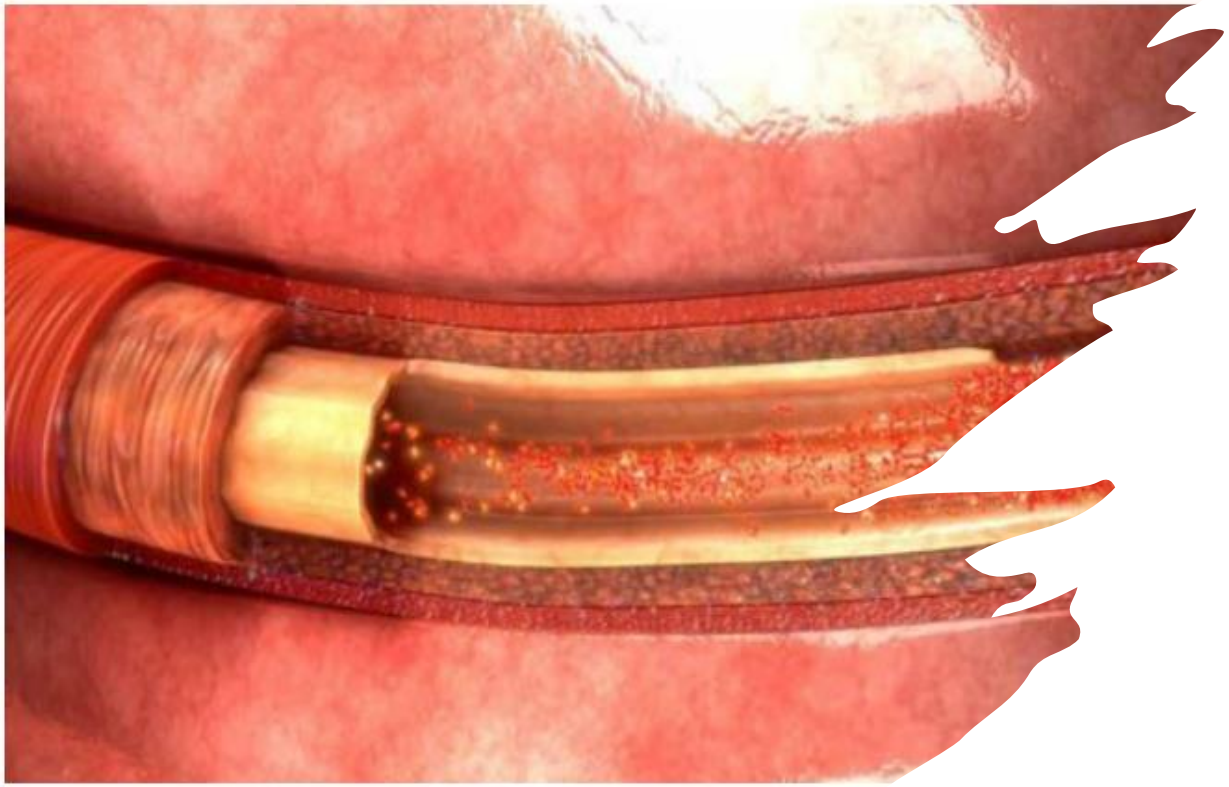


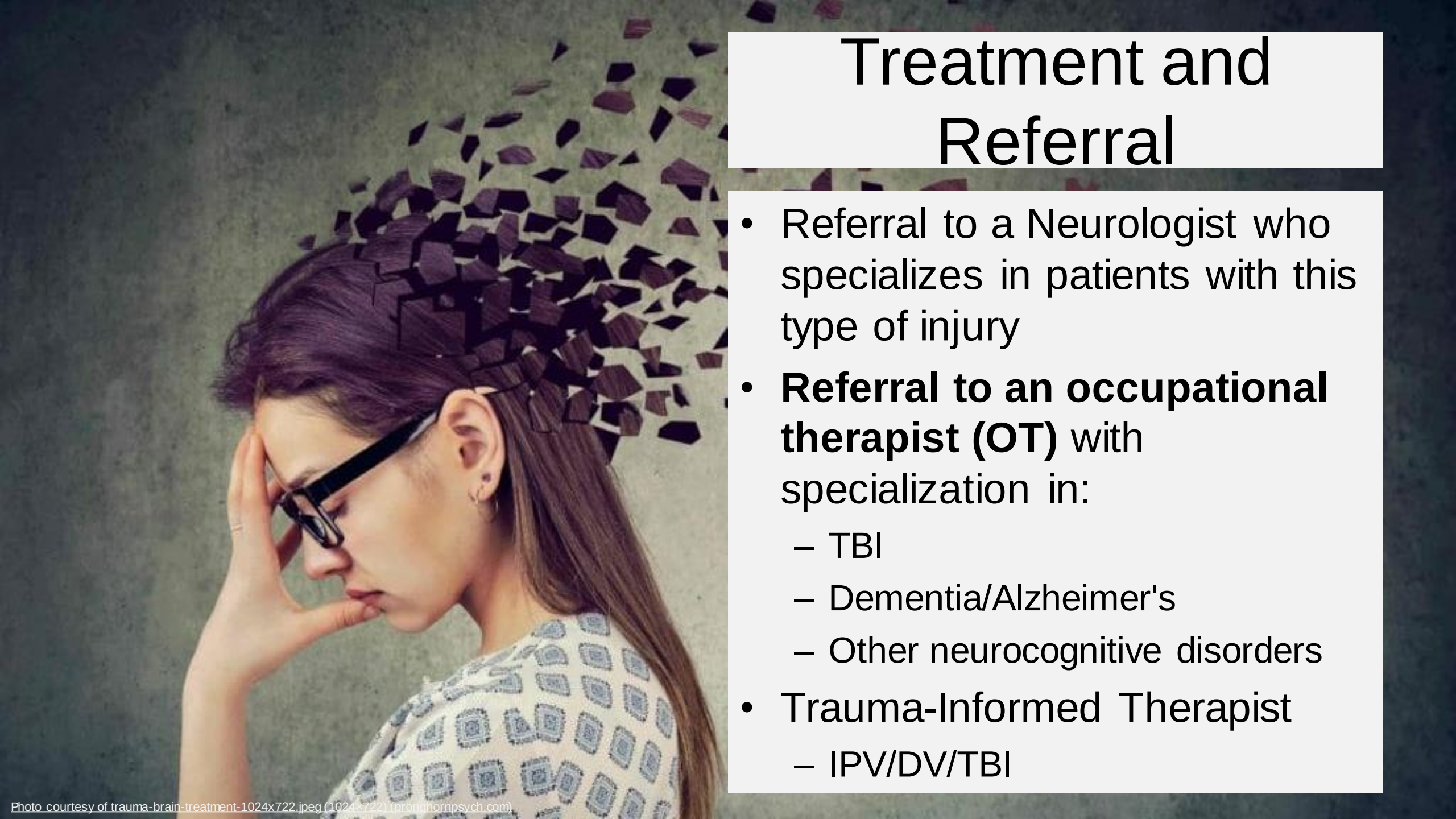
A problematic manuscript regarding the "work-up" of strangled r
019 by the journal *Emergency Radiology*, has recent
r traumatic dissection of the arteries of the neck caused by

ACEP - 2022

- "Our summary could assist the emergency physician to capably refute that radiologist's assertions and persuade them to perform the indicated testing."
- "Our rationale centers not only upon the science of the matter, but also upon the **risk for failing to meet the requirements of the Emergency Medical Treatment and Labor Act (EMTALA) statute** regarding the detection and stabilization of an emergency condition."

Management of TBI: Treatment and Referral

Photo courtesy of trauma-brain-treatment-1024x722.jpeg (1024×722) (pronghornpsych.com)



Treatment and Referral

- Referral to a Neurologist who specializes in patients with this type of injury
- **Referral to an occupational therapist (OT)** with specialization in:
  - TBI
  - Dementia/Alzheimer's
  - Other neurocognitive disorders
- Trauma-Informed Therapist
  - IPV/DV/TBI

Photo courtesy of trauma-brain-treatment-1024x722.jpeg (1024×722) (pronghornpsych.com)

Treatment and Referral

- **<u>Explain the symptoms and clinical course of TBI</u>**
- Reassure the patient that she/he isn’t going crazy
- Your symptoms can last for days, weeks, months, or even years
- Provide Hope
- Rest is the best medicine for the brain

Photo courtesy of trauma-brain-treatment-1024x722.jpeg (1024×722) (pronghornpsych.com)

Expert Testimony

Courtesy of Colin Lloyd at Pexel.com

Photo courtesy of cottonbro at Pexels.com

What you need to know before you go to court

- Definition
- Forces Required
- Timeline of Events
- When do you get petechiae? When don't you?
- AAN Policy Statement
- Normal Brain Basics and Anatomy
- Basic Neck Anatomy
- Symptoms/Mechanics of Brain Hypoxia
- Symptoms/Mechanics of Brian Anoxia
  - Which cells die first? What is their function?
- Brain Injury Rate (neurons and synapses lost)
- Traumatic Brain Injury Sequelae (aka chronic symptoms)
  - How it affects memory (amnestic profile)
- Is strangulation life threatening? Why?

Recap

- Set up the Fillable PDF
- 3 functions, Arrow, Line, & Dra
- Forensic Photography
  - Rule of 4's for visible injuries
  - 1 photo for TTP
- Neck Exam
  - 6 planes of motion – Don't forget to document that on the 502 form!!!
- Cranial Nerve/Neuro Exam
- Patients may not remember losing consciousness – Assess for Amnesia
- Refer to OT for Treatment
- Prepare for Court!

Photo courtesy of David Guerrero from Pexel

QUESTIONS?

SEAN DUGAN, MD, FAAP, SAFE SDUGAN@SHASTAHEALTH.ORG
DIRECTOR OF FORENSIC SERVICES, SCFCT