

DRIVING **CHANGE 2023**

THE URGENT CARE CONVENTION

UCA URGENT CARE
ASSOCIATION®



COLLEGE OF
URGENT CARE
MEDICINE

UC **M** **axi** **mus**



Faculty

UCMaximus





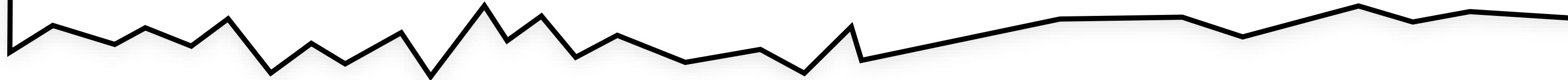
You Don't Know Piss: A Deep Dive in the UA

Scott Kobner, MD



**Appropriateness of Antibiotic Prescriptions
for Urinary Tract Infections**

2020



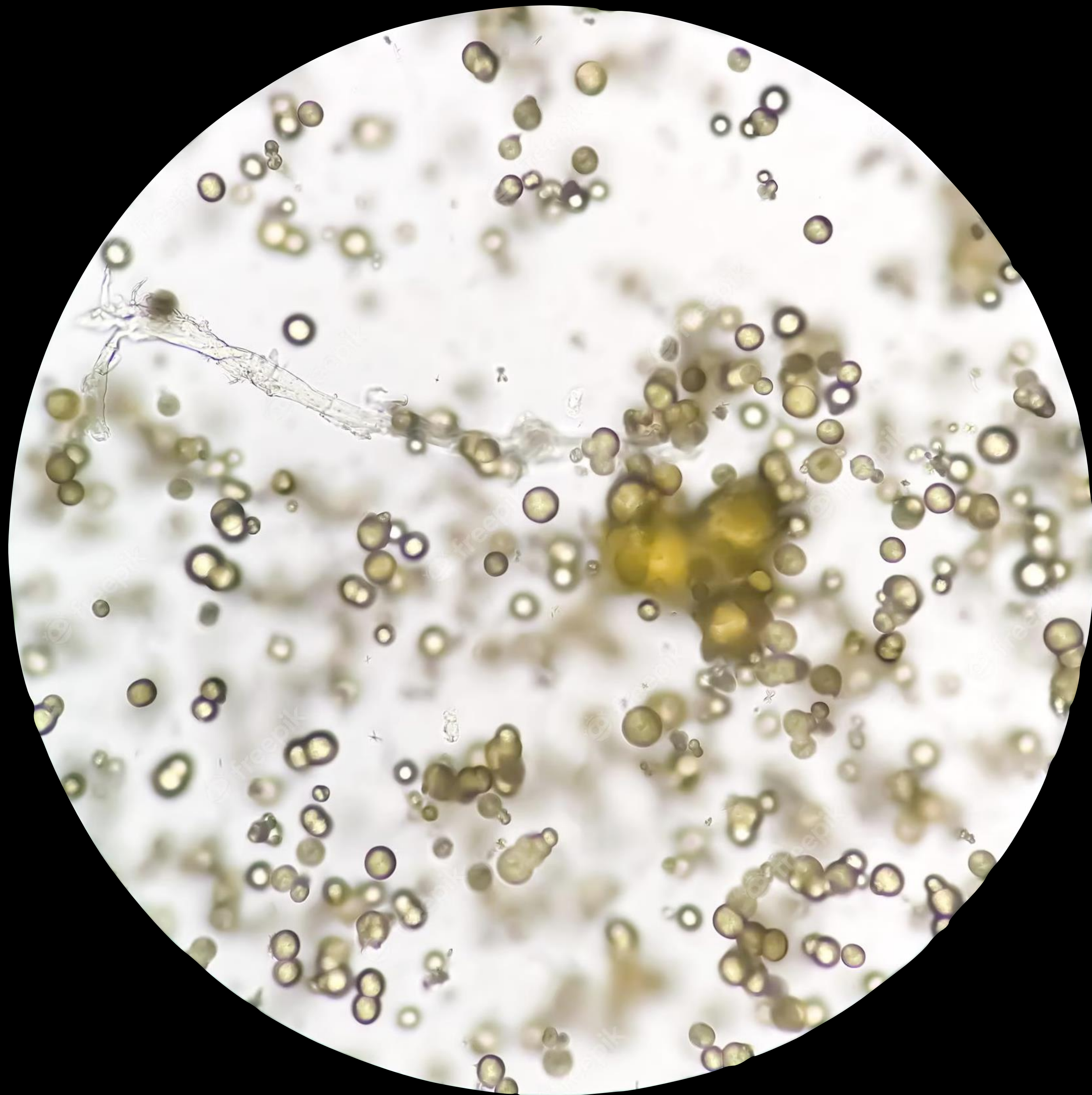
43% did not have cystitis

64% did not have pyelo

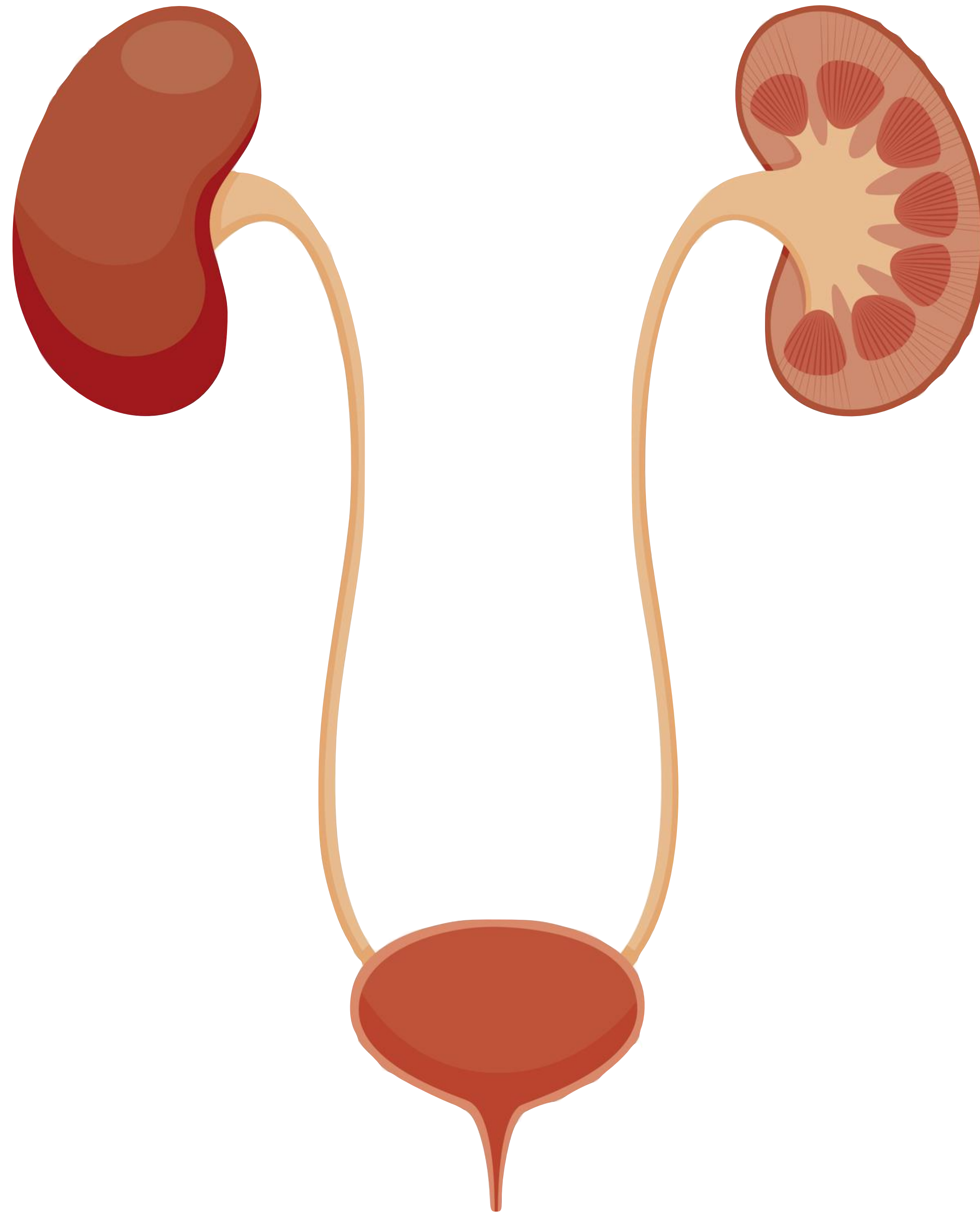




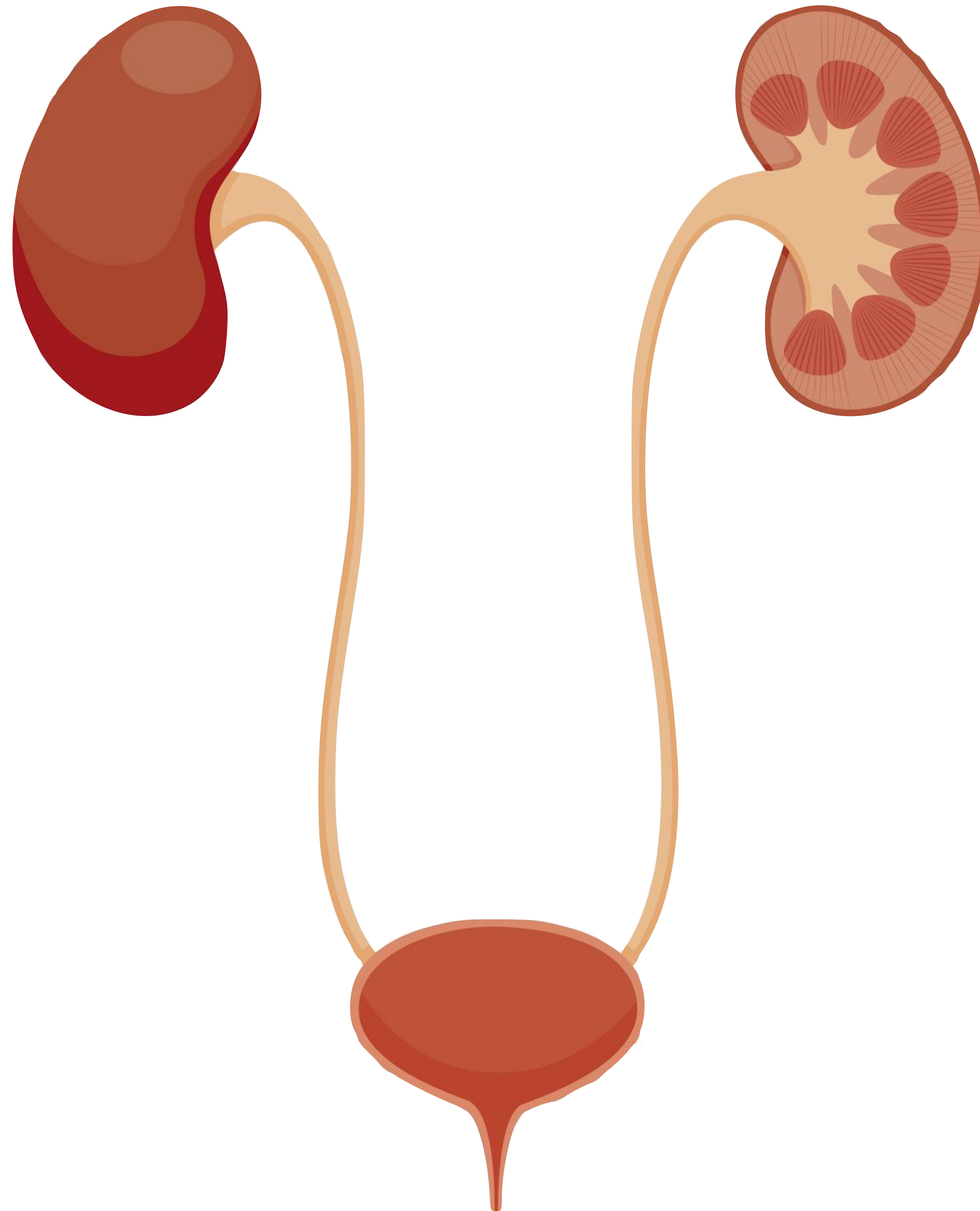
Parameter	Color	Value
pH	Light Yellow	5.0
	Orange	5.5
	Yellow	6.0
	Light Green	6.5
Protein	Light Green	NEGATIVE
	Light Yellow	TRACE
	Yellow	30 mg/dL
	Light Green	100 mg/dL
Glucose	Light Green	300 mg/dL
	Light Yellow	1000 mg/dL
	Yellow	3000 mg/dL
	Orange	2000 or more mg/dL
Ketones	Light Green	0
	Light Yellow	1
	Yellow	2
	Orange	3
Hemoglobin	Light Green	MODERATE
	Light Yellow	MODERATE
	Yellow	LARGE
	Orange	LARGE
Specific Gravity	Light Green	1.000
	Light Yellow	1.005
	Yellow	1.010
	Light Green	1.015



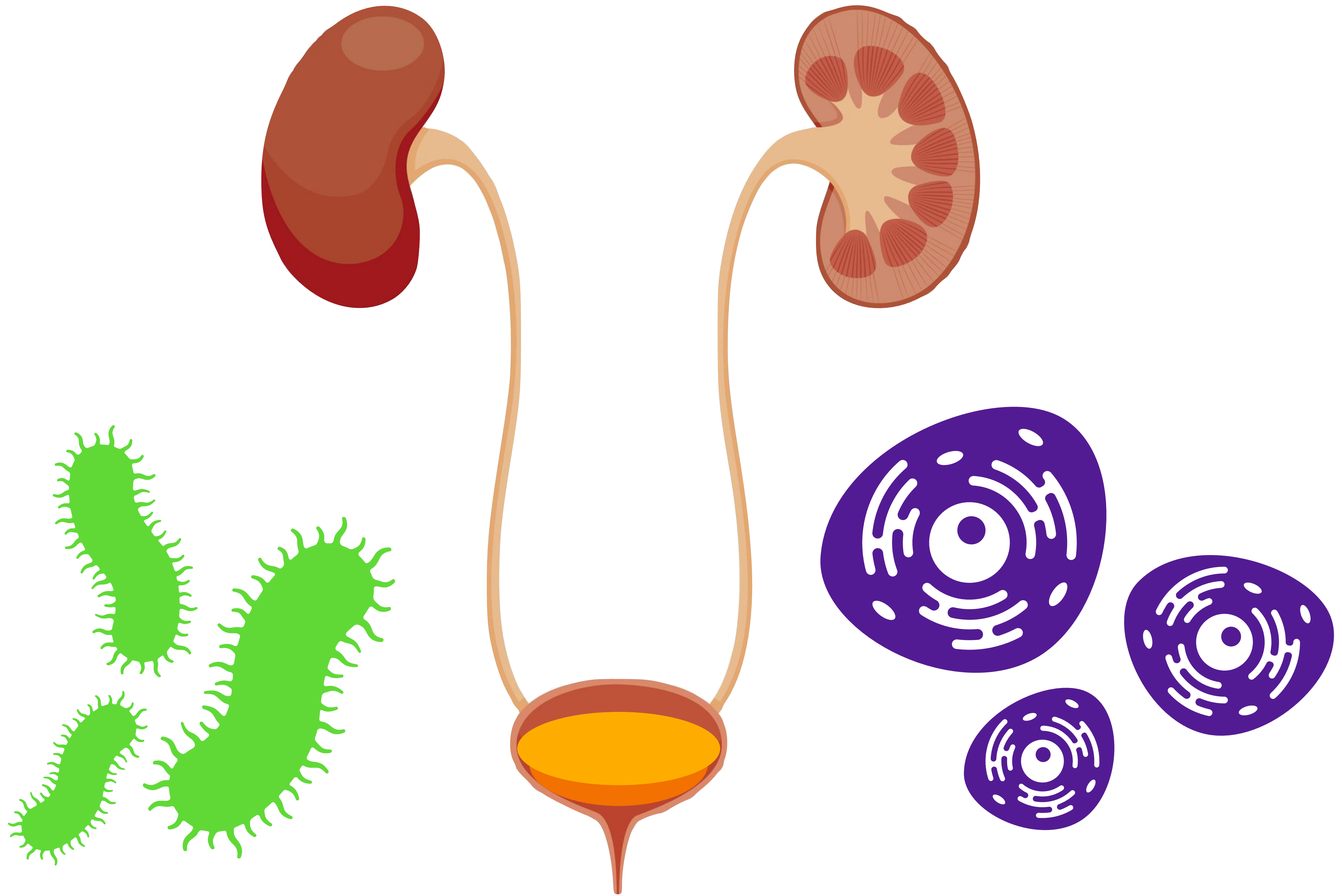




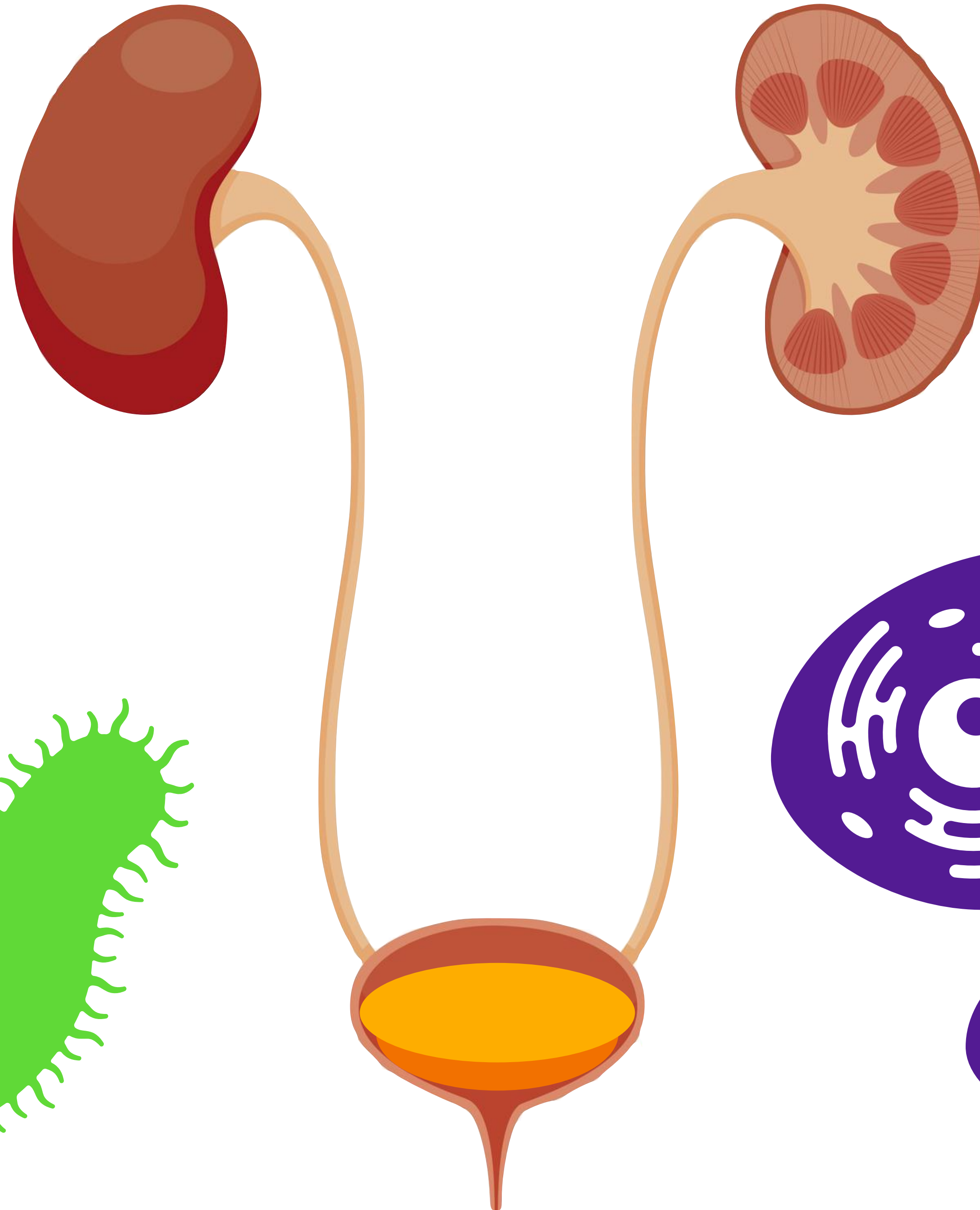
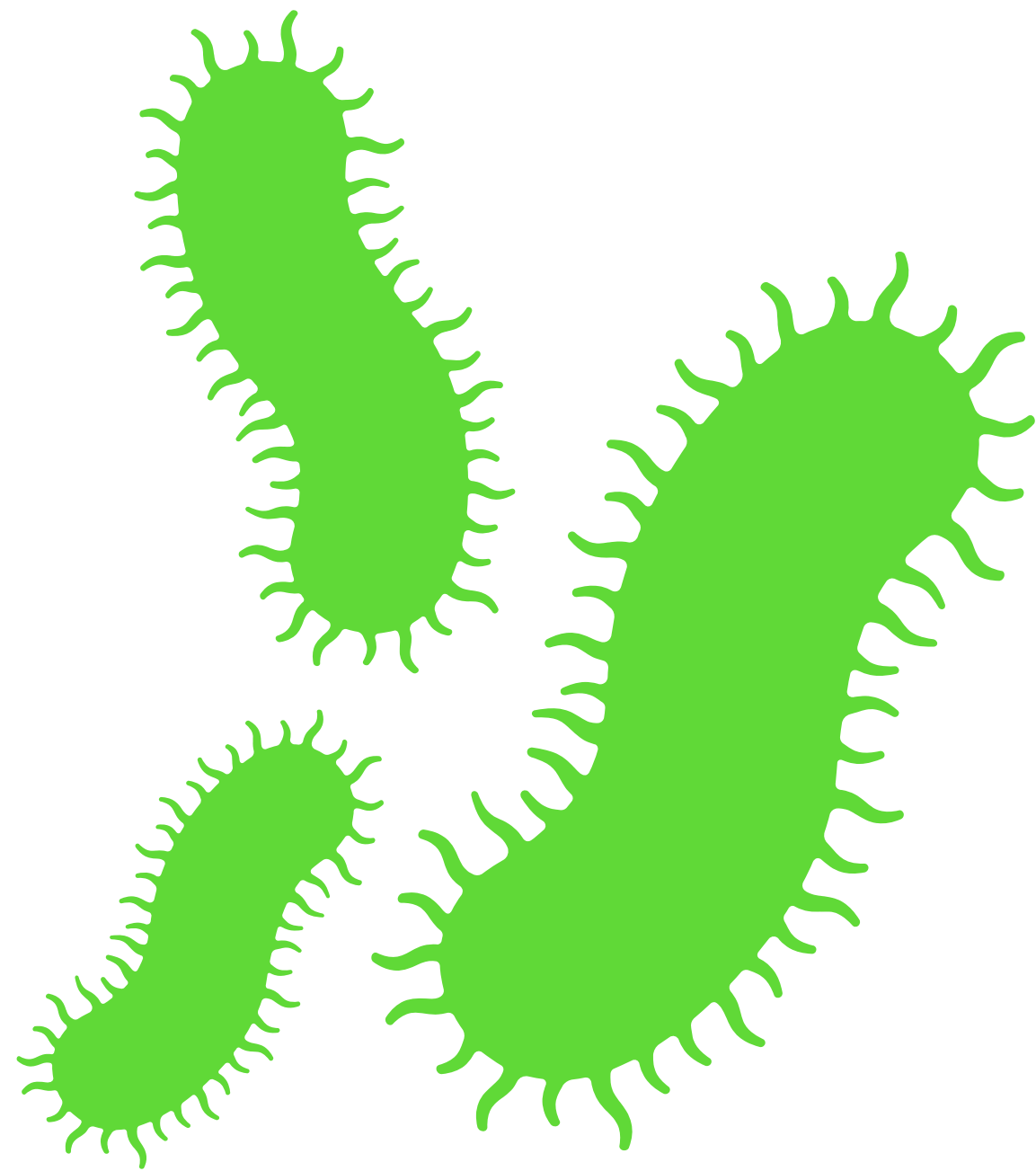
Specific Gravity



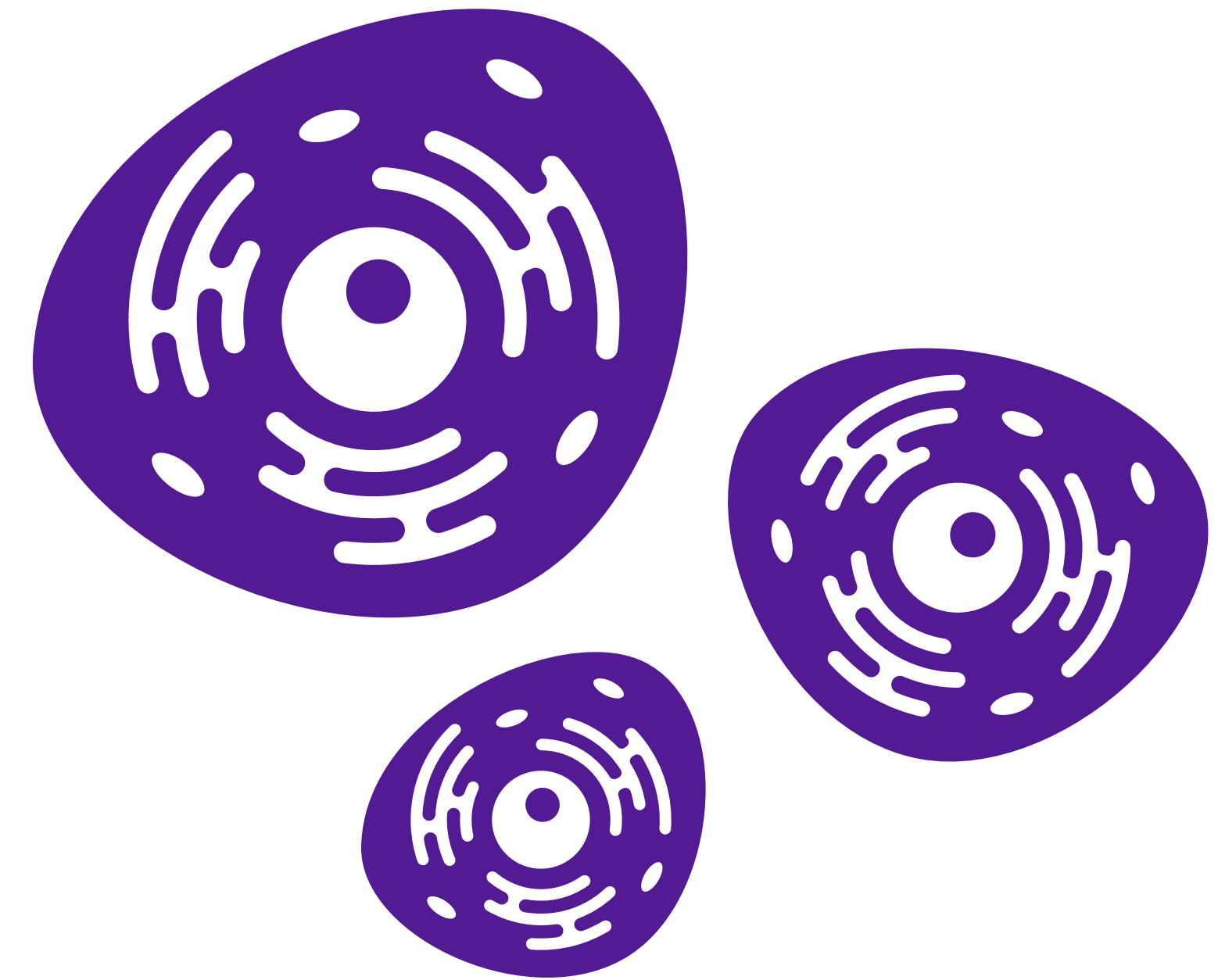
Squams



Nitrites



**Leukocyte
Esterase**

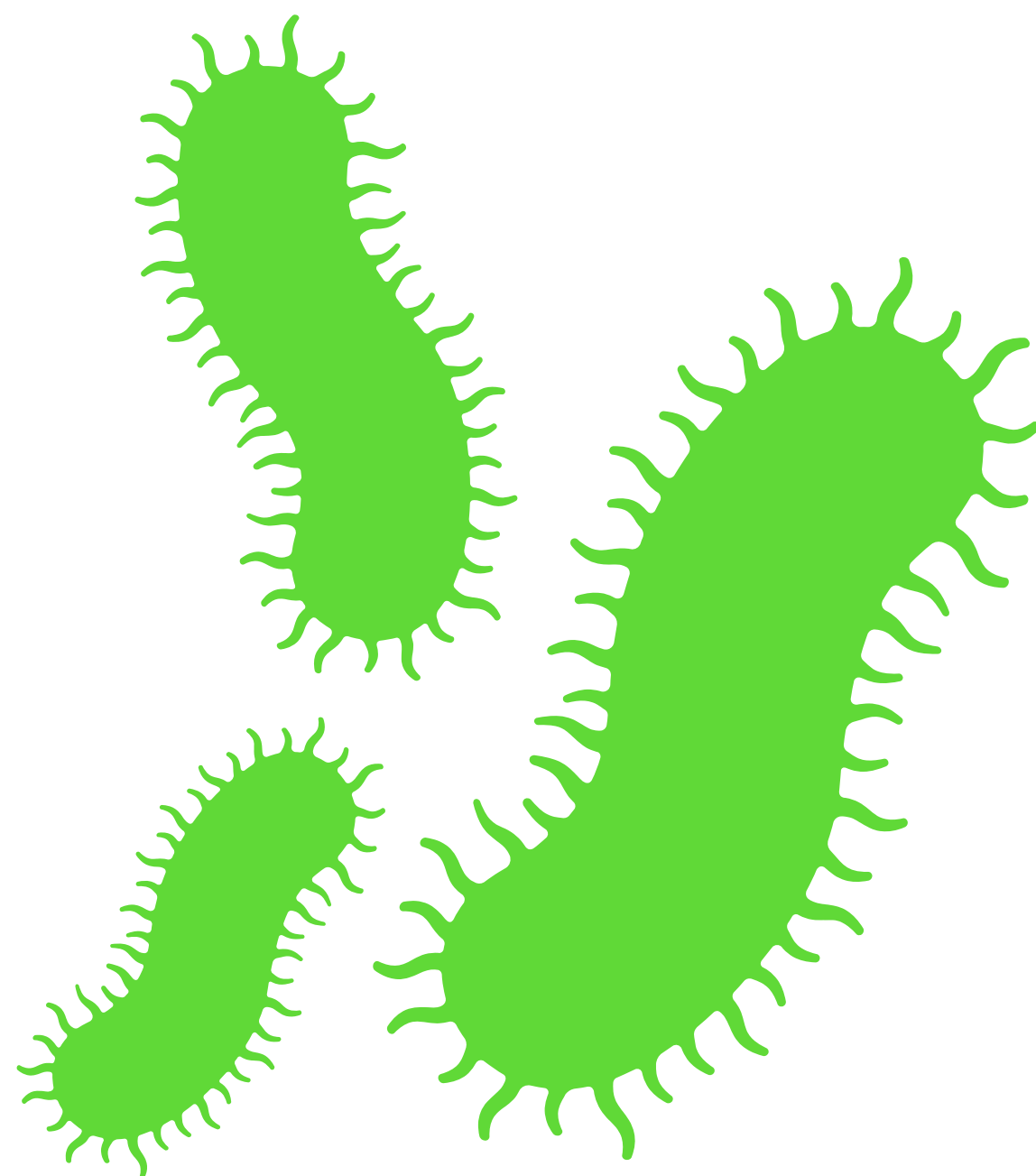


The urine dipstick test useful to rule out infections.

2004

A meta-analysis of the accuracy

Nitrites



45-60%

Sensitivity

85-98%

Specificity

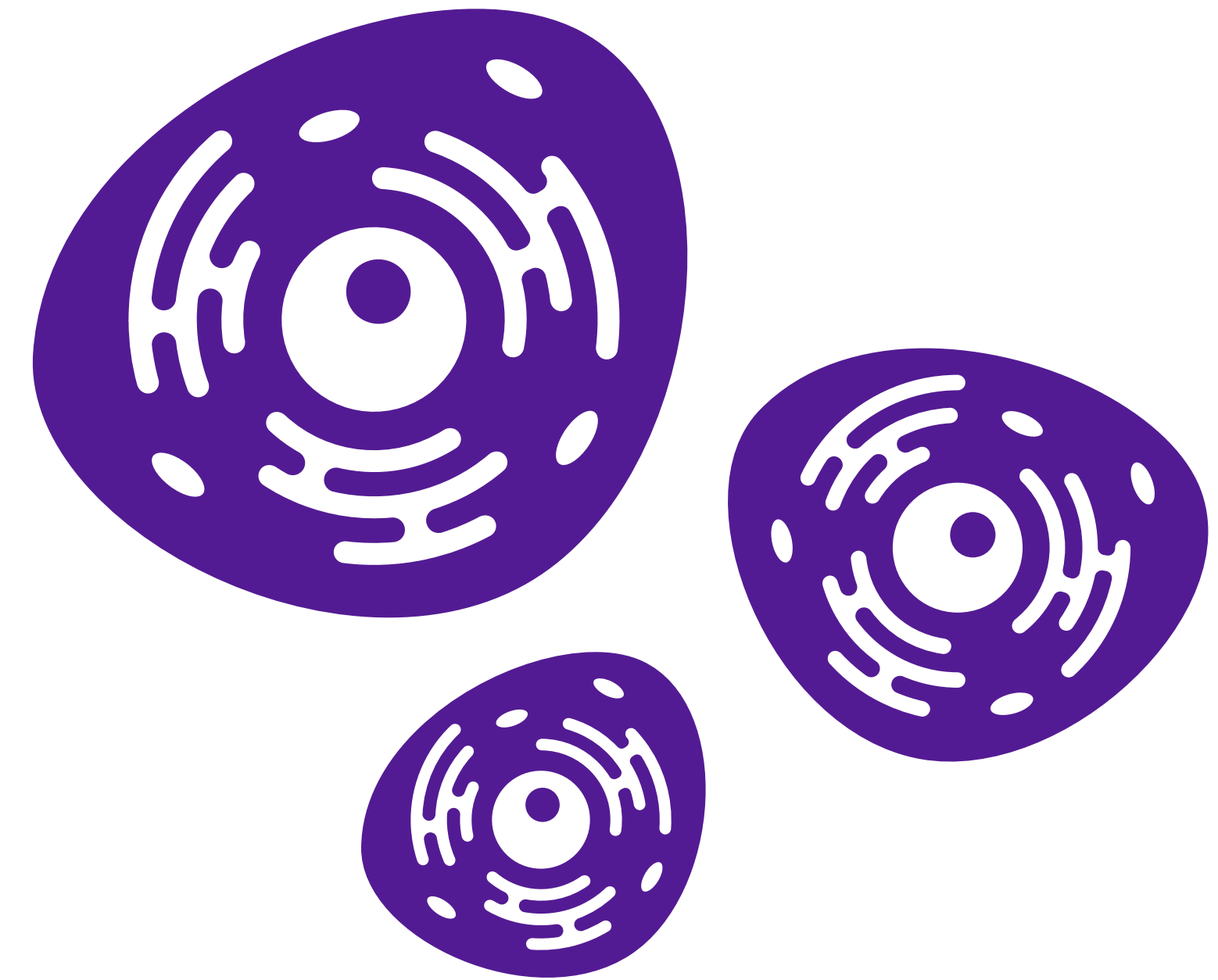
48-86%

Sensitivity

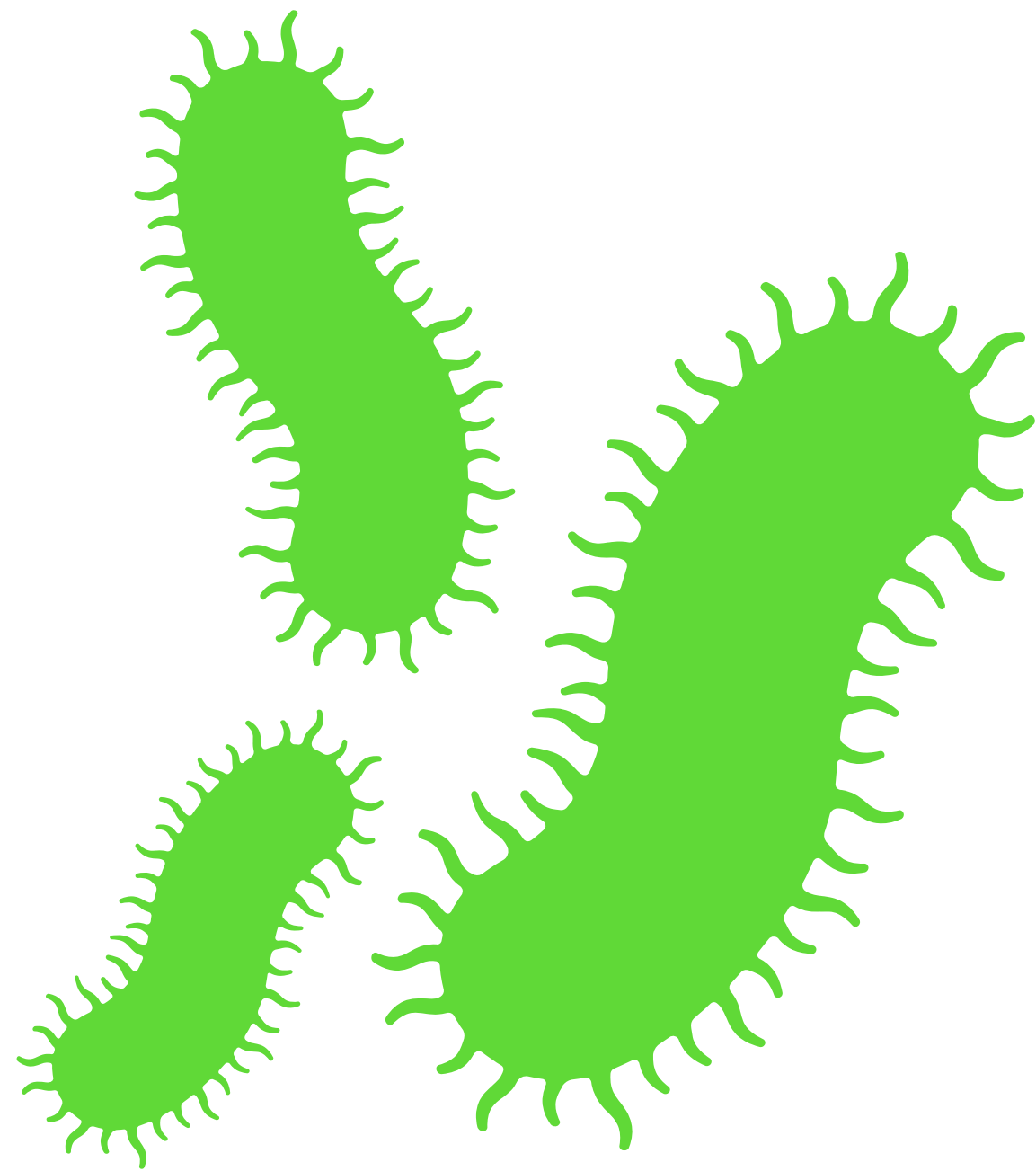
17-93%

Specificity

**Leukocyte
Esterase**



Nitrites

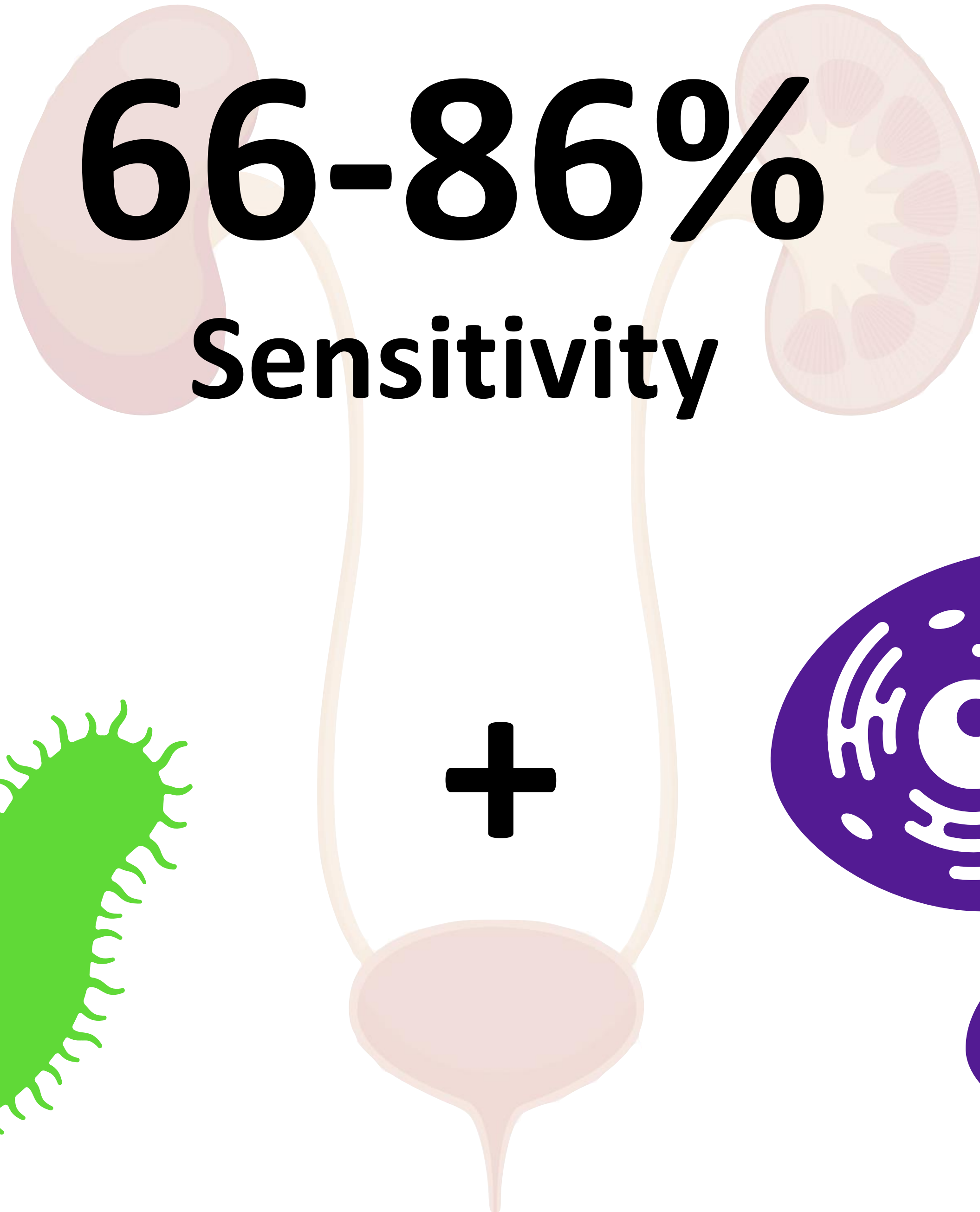
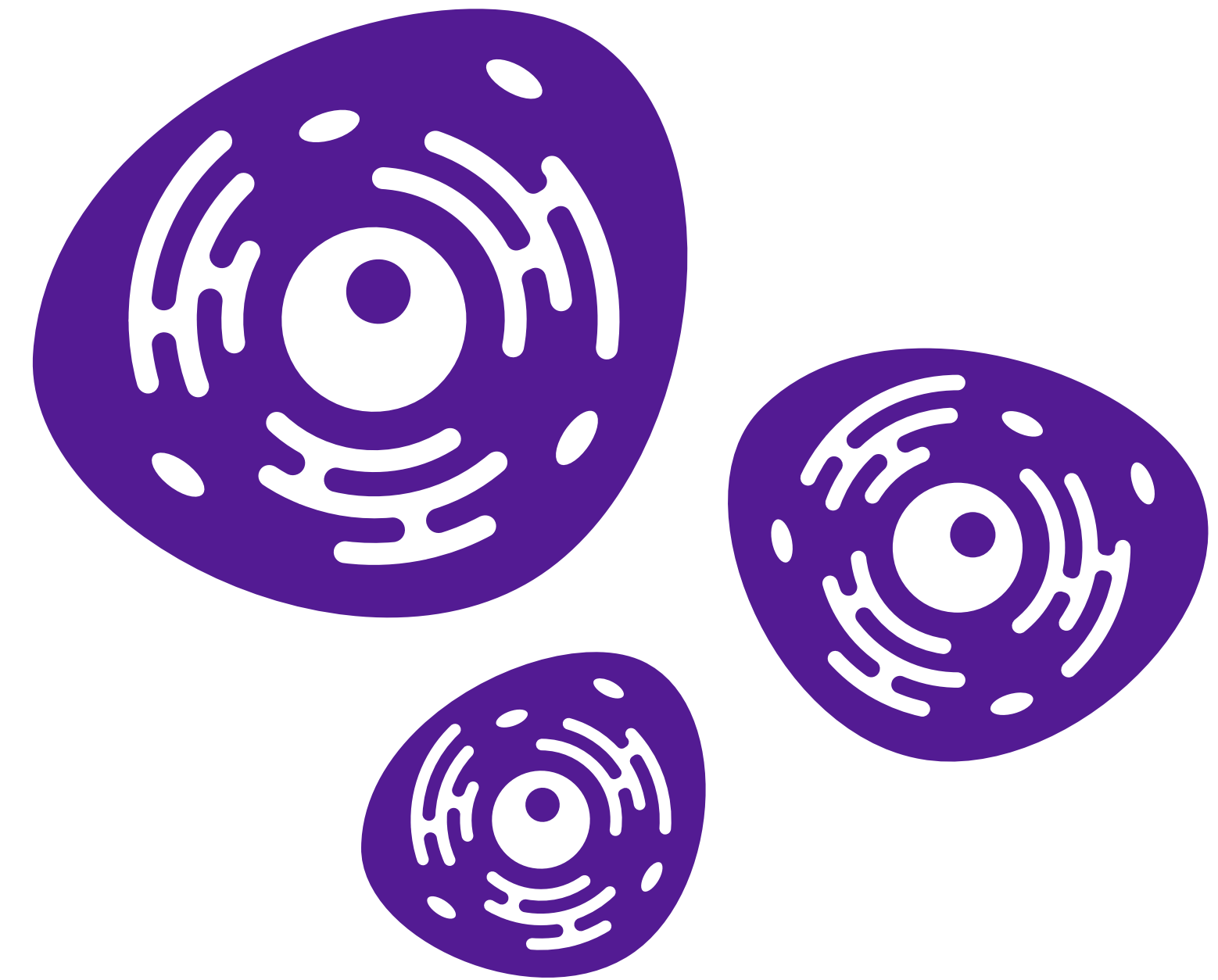


66-86%

Sensitivity

+

**Leukocyte
Esterase**



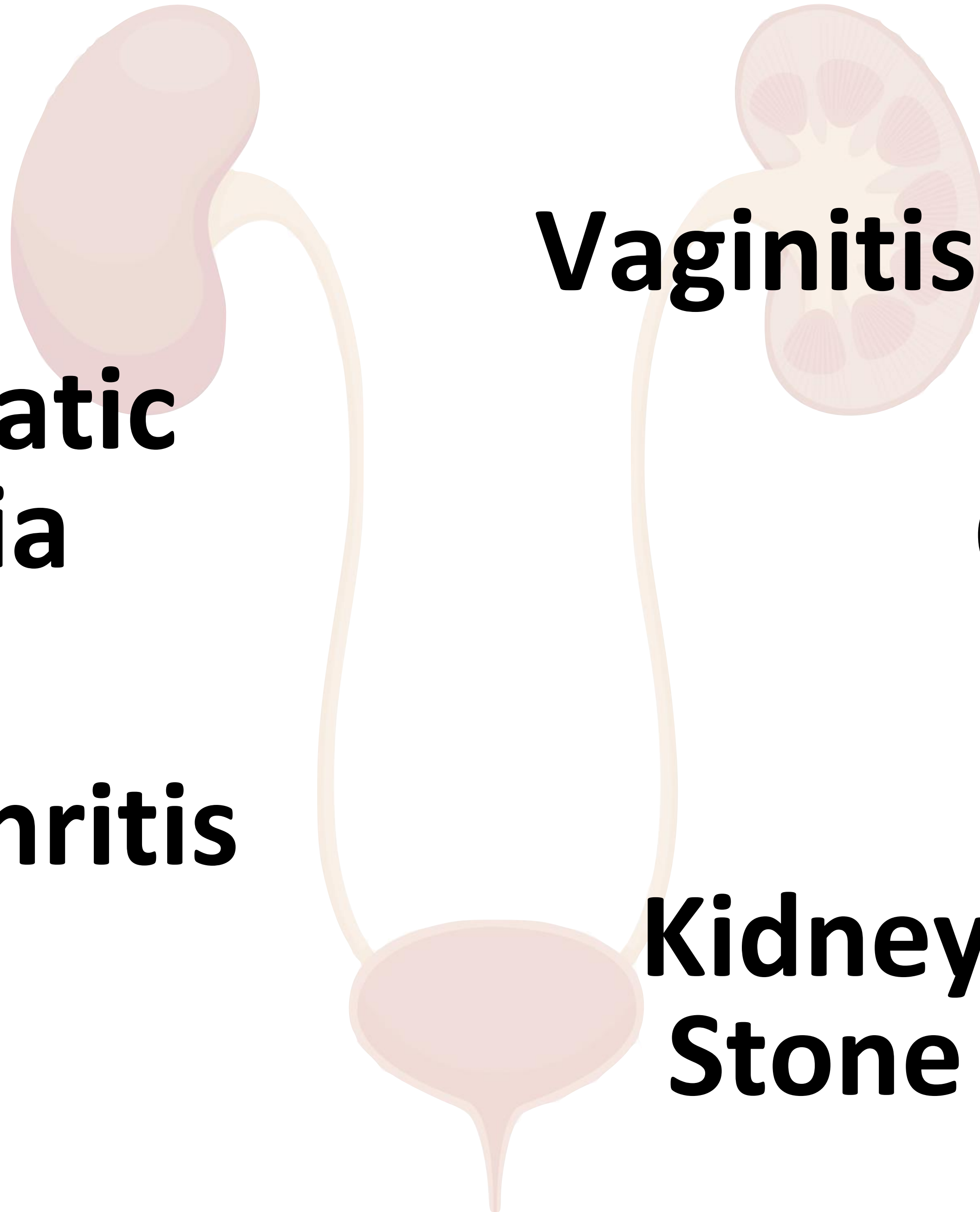
**Asymptomatic
Bacteruria**

Urethritis

Vaginitis

**Overactive
Bladder**

**Kidney
Stone**



Pretest Probability



History and Exam



Dysuria	(1.5)
Frequency	(1.8)
Back Pain	(1.6)
Hematuria	(2.0)
Self Dx	(4.0)

Likelihood Ratios

No Discharge (3.1)

No Irritation (2.7)

Likelihood Ratios

Dysuria + Frequency
with no
Discharge + Irritation

Dysuria + Frequency
with no
Discharge + Irritation

LR = 24.6



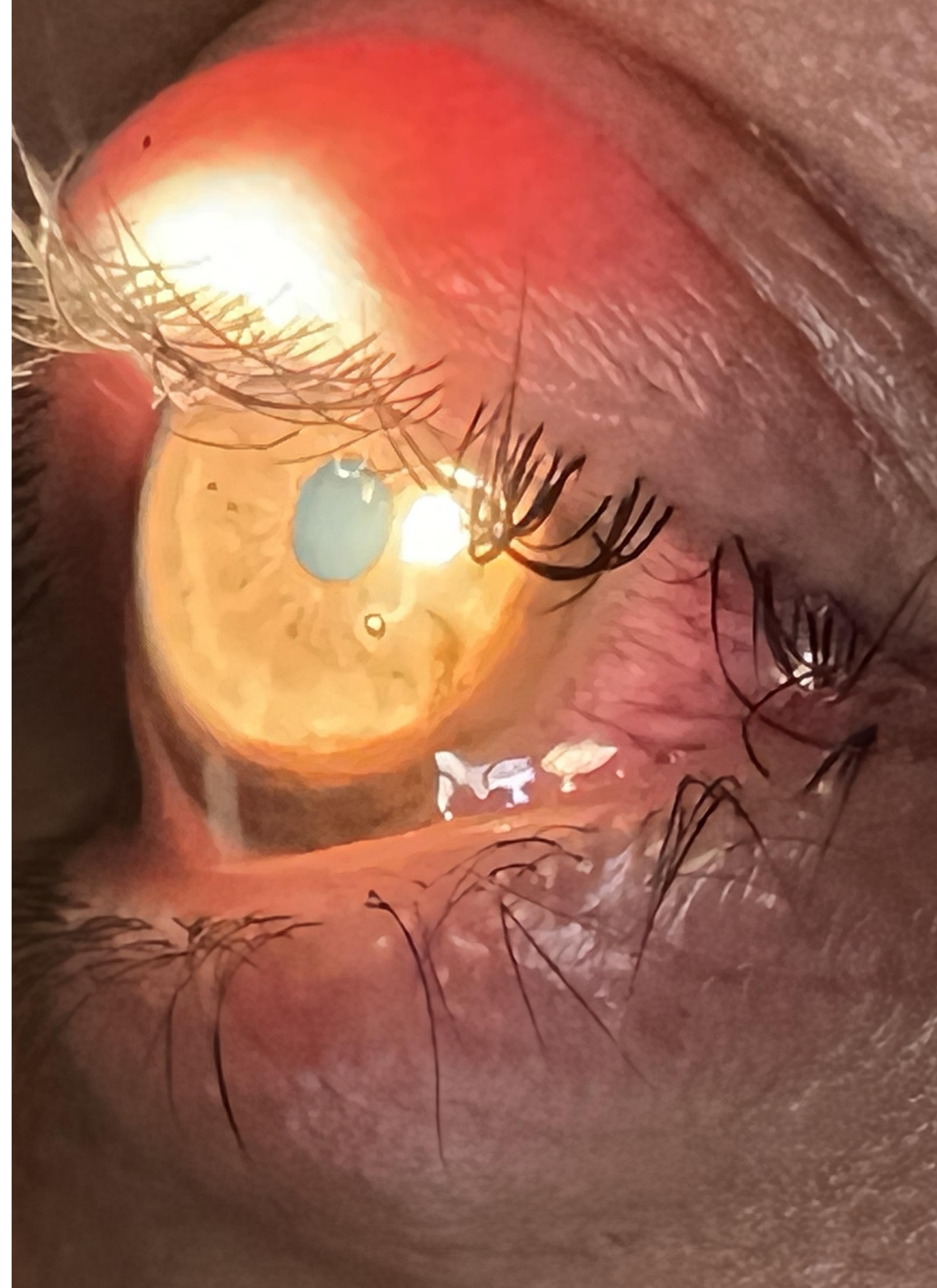


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CASE

- 36 year-old male
Welding with eye protection
Felt eye pain immediately afterwards



What's in My Eye?

Jessica Mason, MD
Kevin Wilcox, DO

OBJECTIVES

1. Perform a physical exam on the painful red eye with foreign body sensation.
2. Understand the limitations of a Wood's lamp vs slit lamp.

PEARLS

Think of eye complaints in categories.

Painless Vision Loss

Eye Trauma

Painful Vision Loss

Painful Red Eye

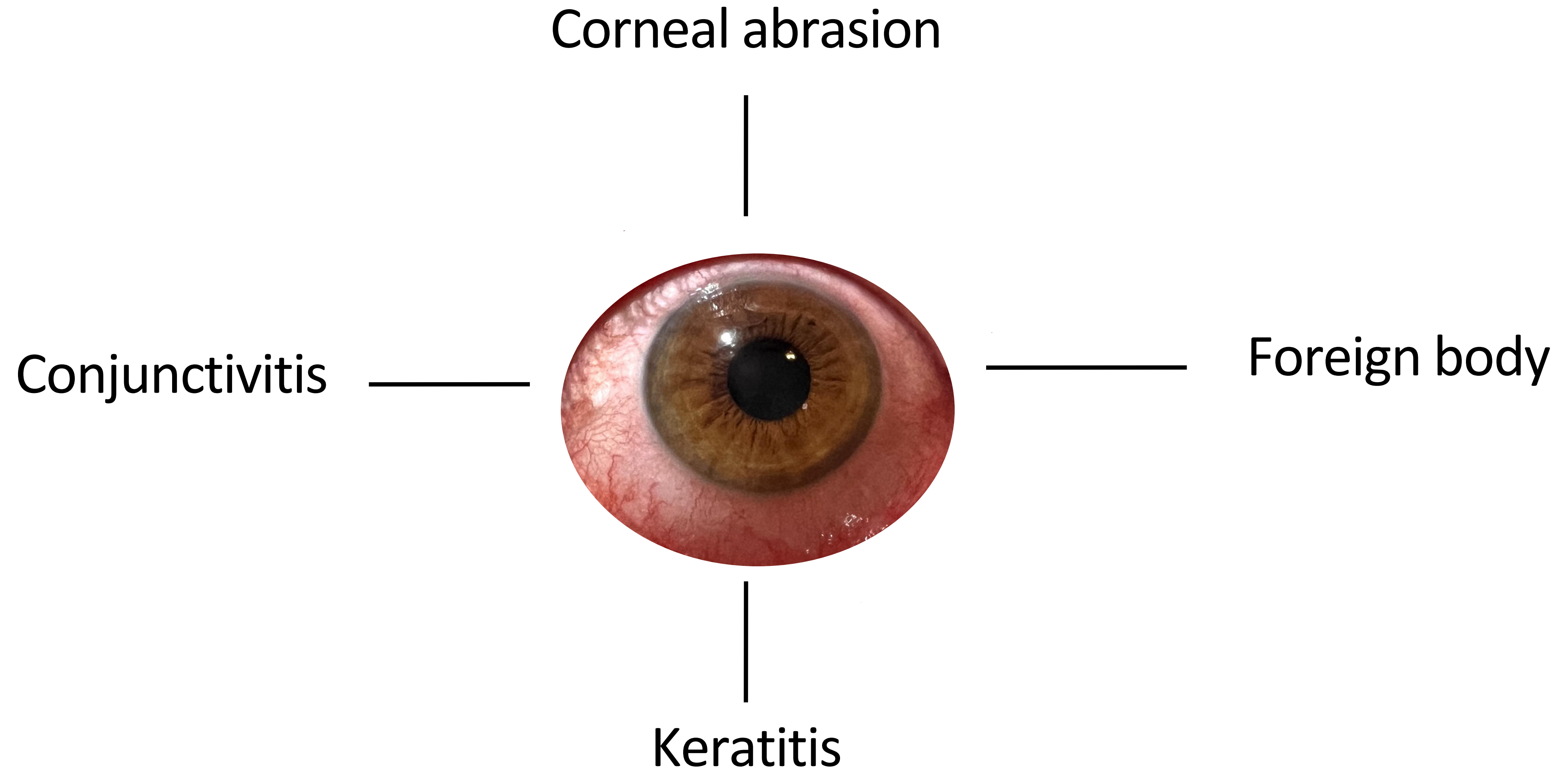
Painful Red Eye

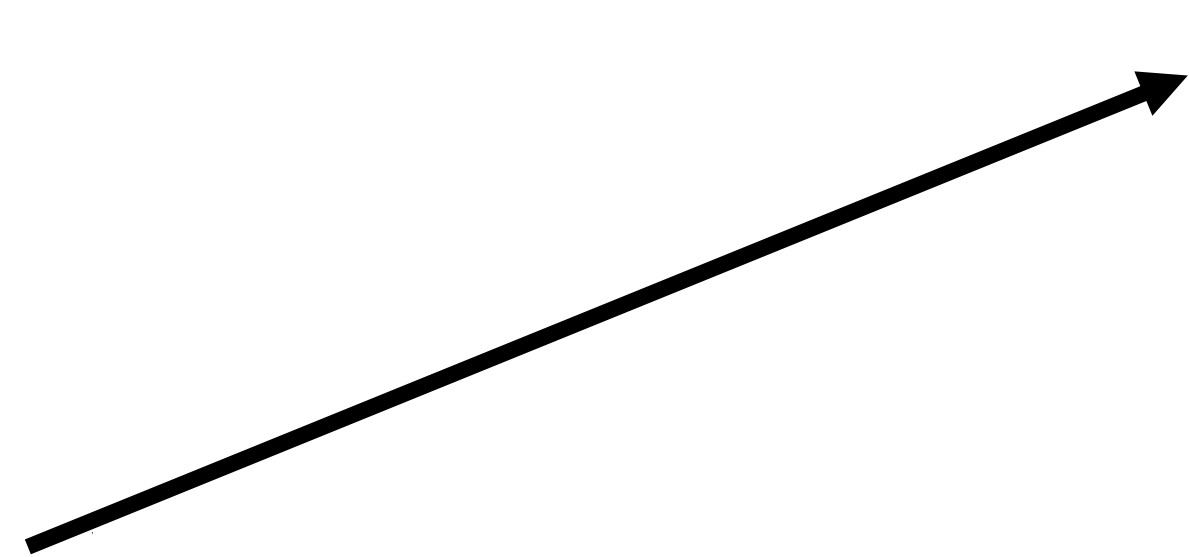
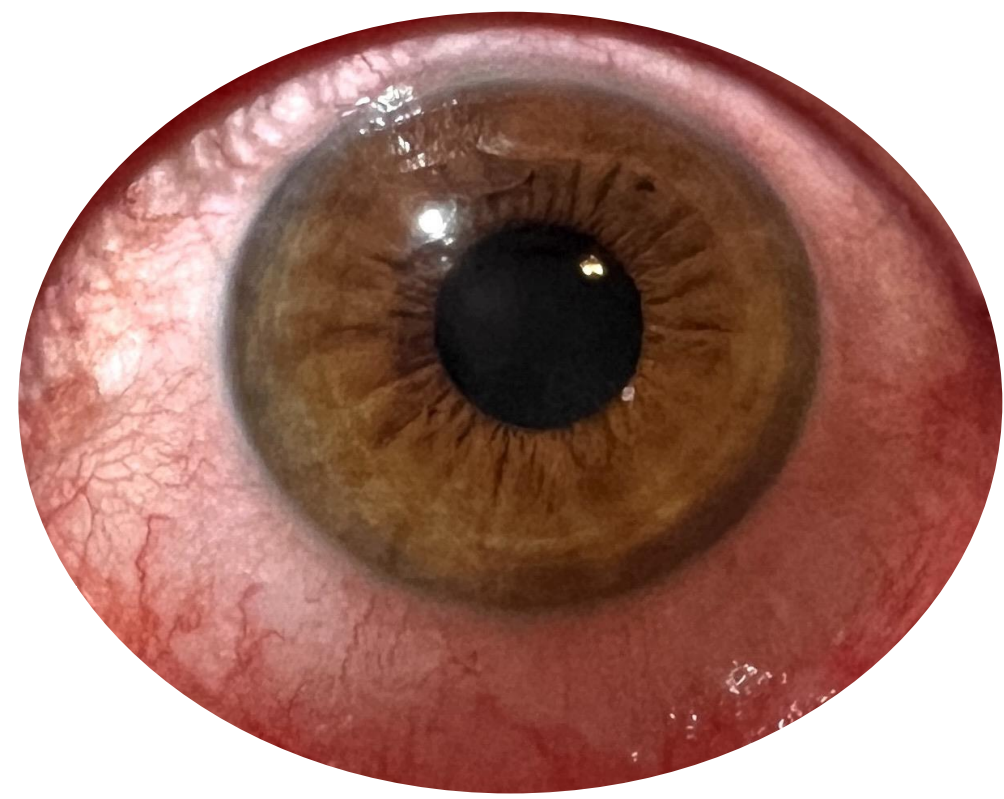
Painful Red Eye



Foreign Body Sensation

DIFFERENTIAL DIAGNOSIS

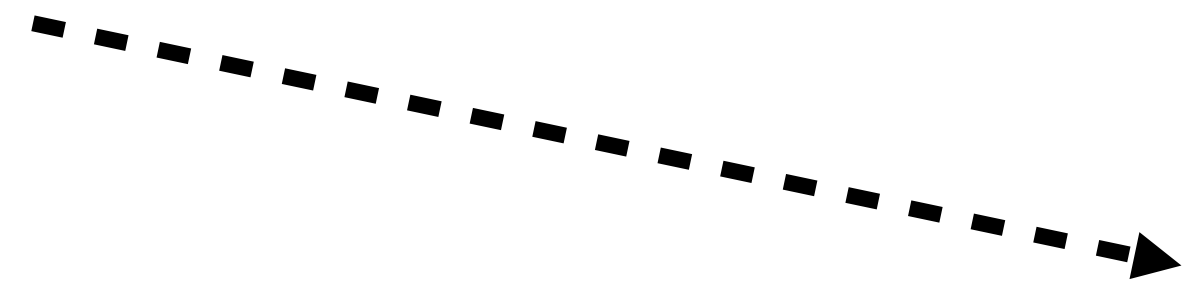




Inspection



Fluorescein stain



Slit lamp

CASE

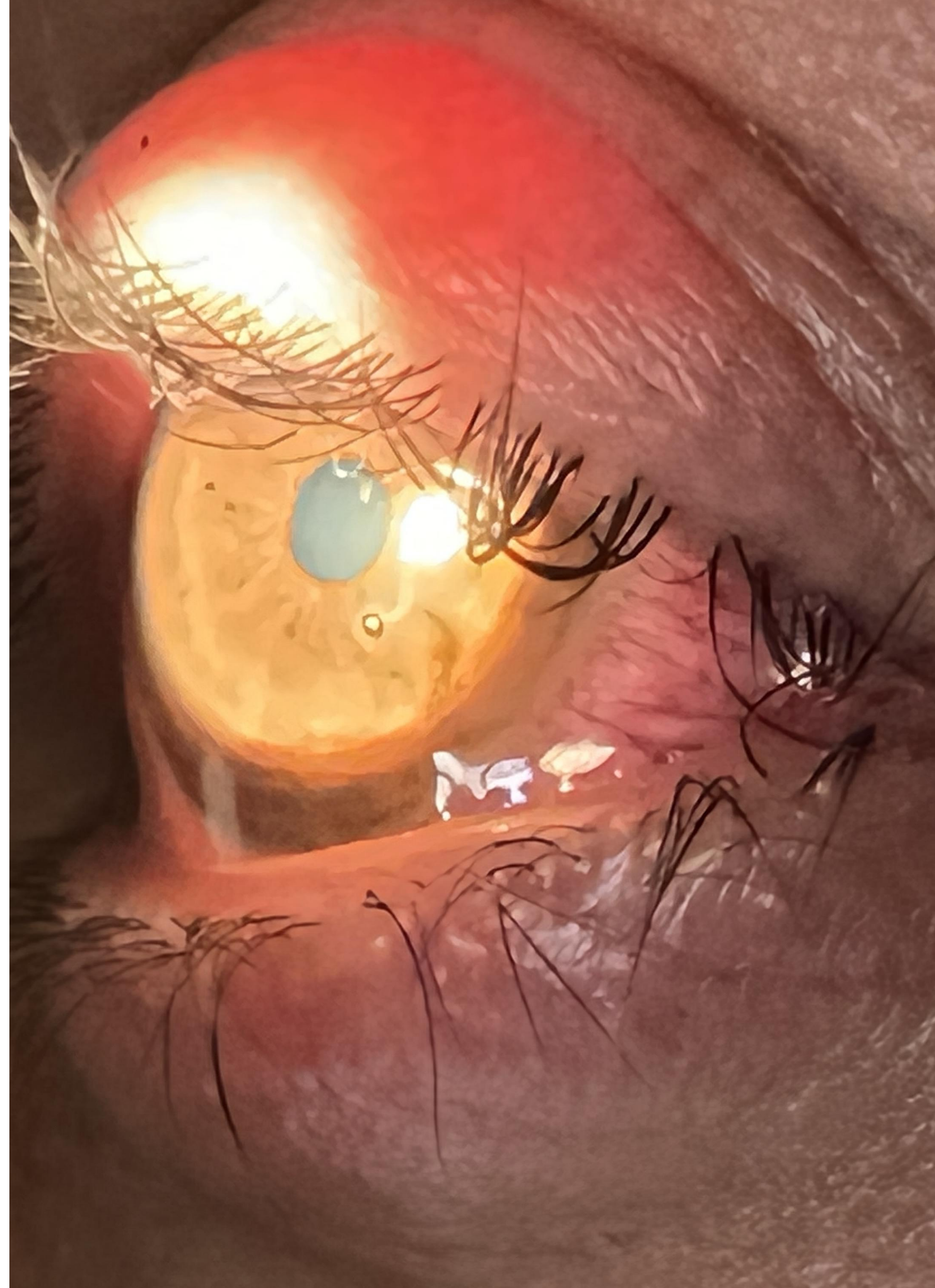
Differential

~~Conjunctivitis~~

Keratitis

Corneal abrasion

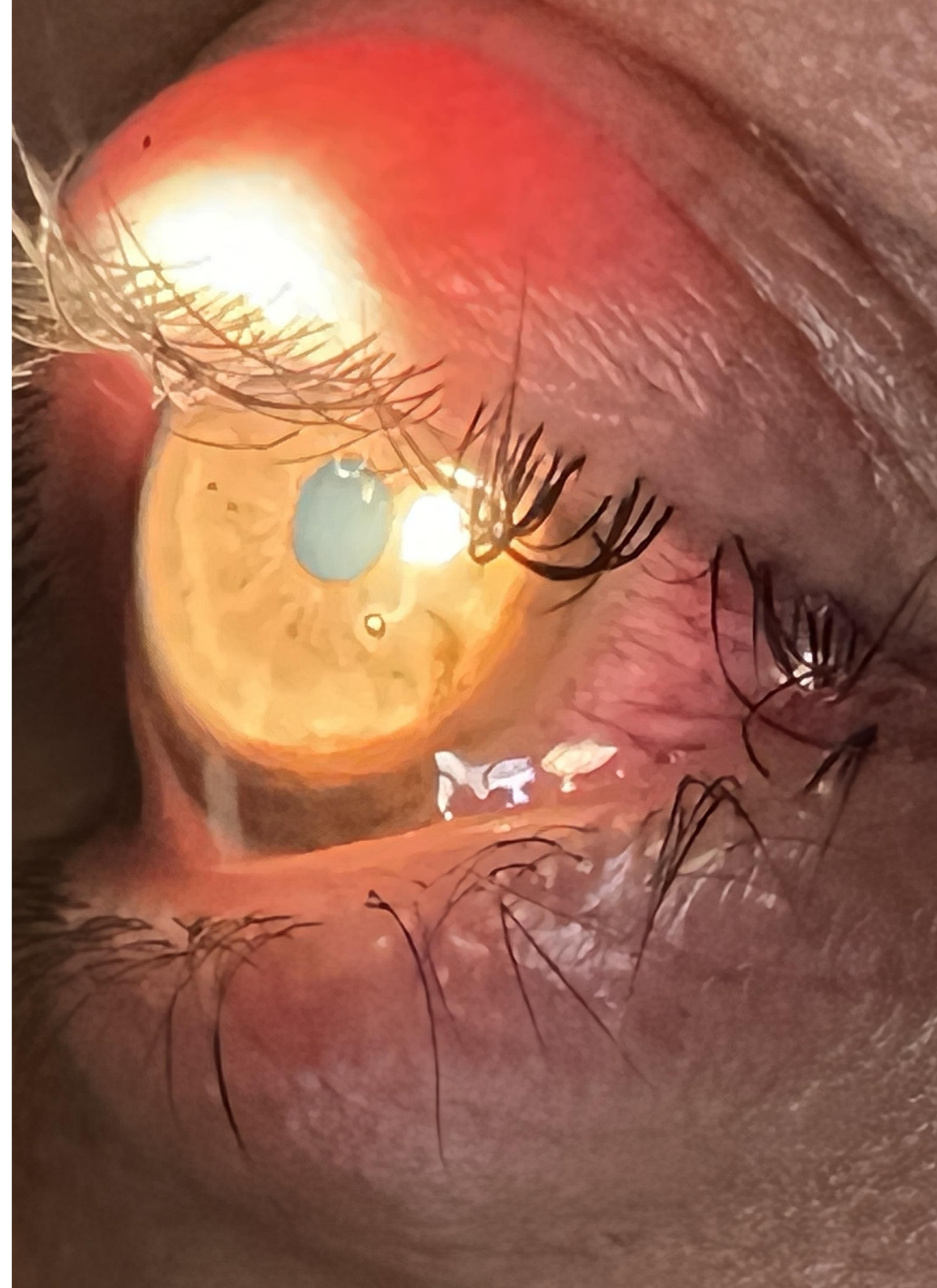
Foreign body



CASE

Plan

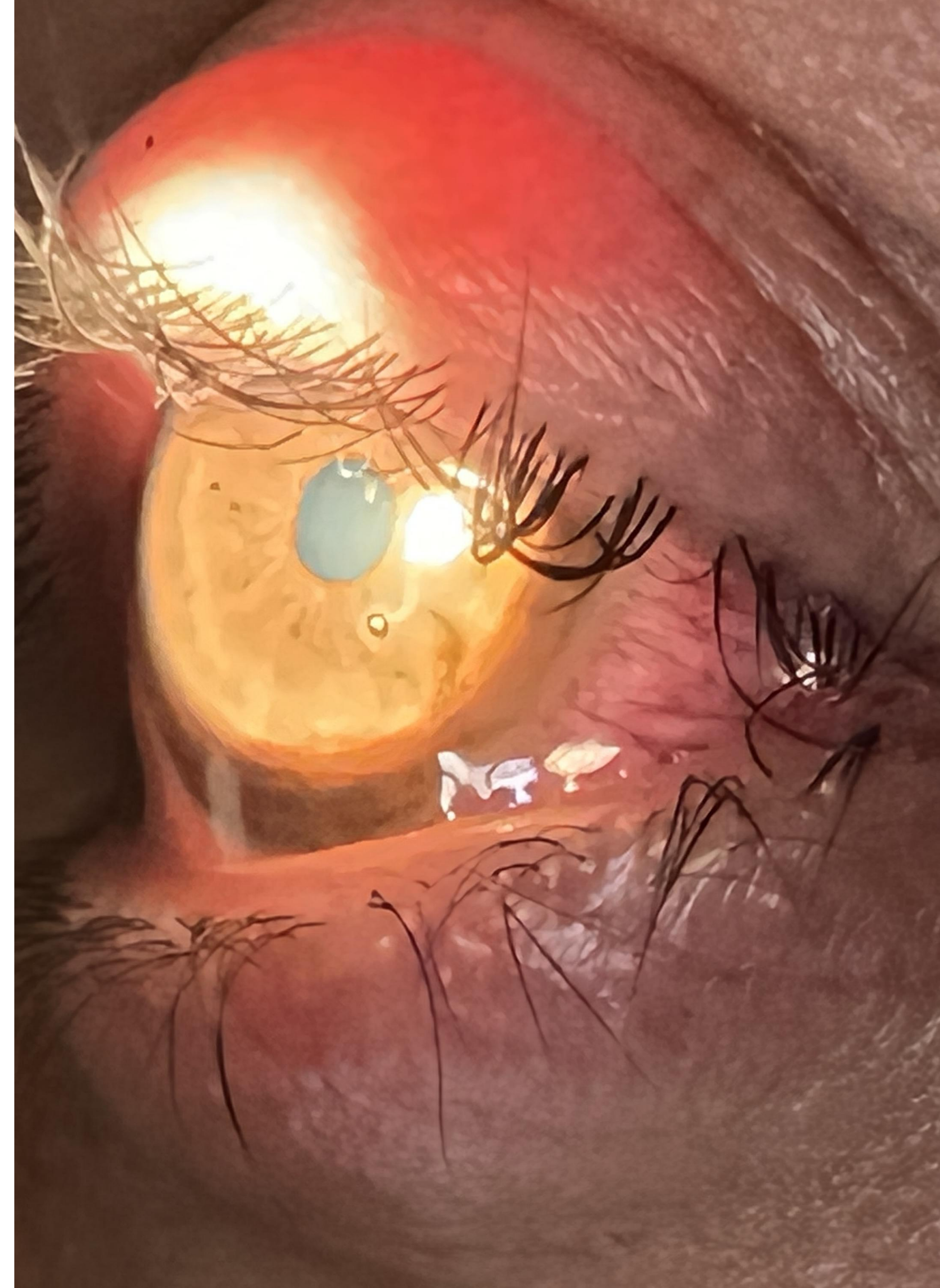
- Inspection
- Evert the eyelids
- Visual acuity
- Fluorescein stain



CASE

Inspect for...

- Redness/injection
- Discharge
- Foreign bodies
- Abrasions, ulcerations

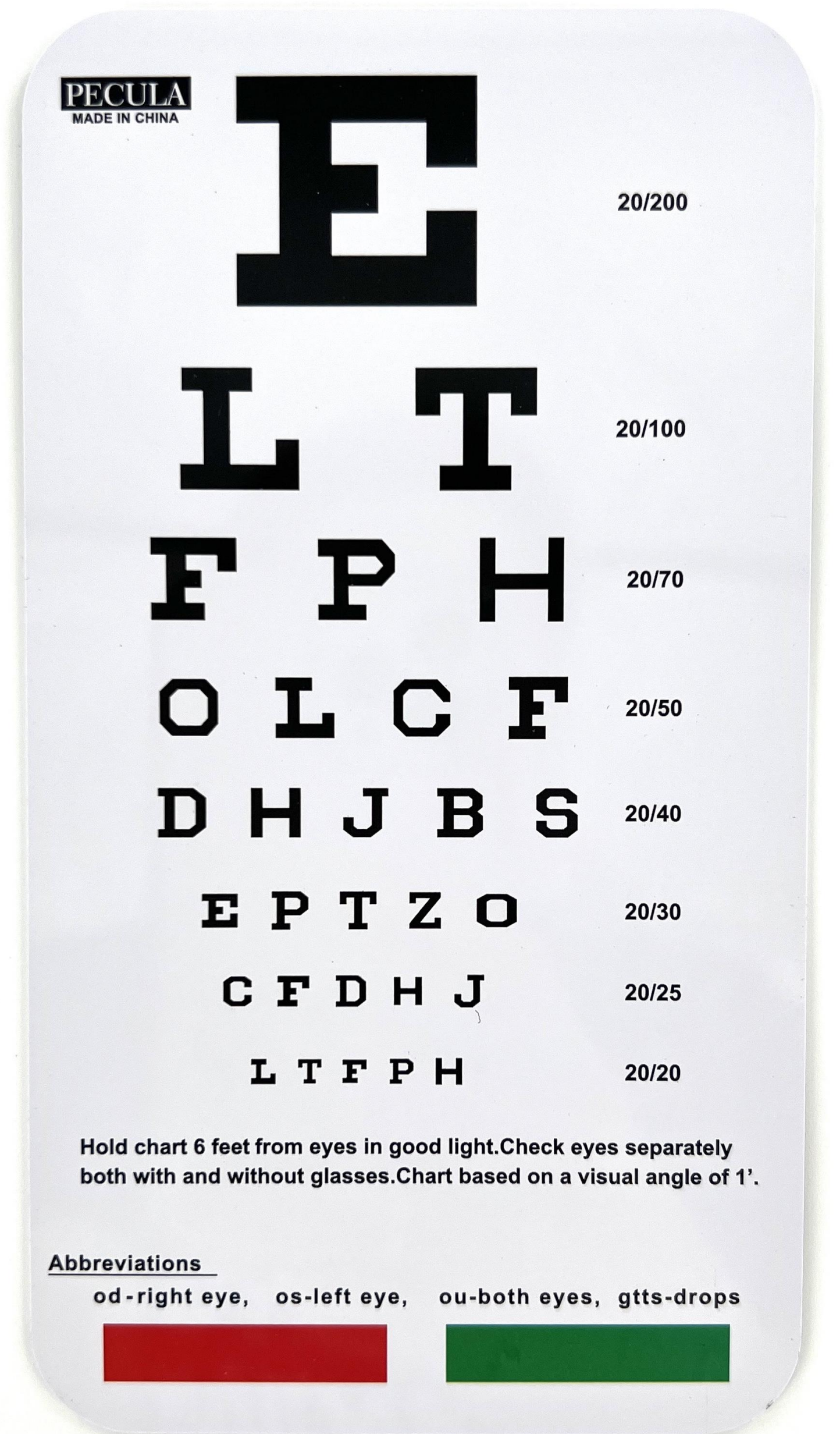


EYELID EVERSION

PERSPECTIVES

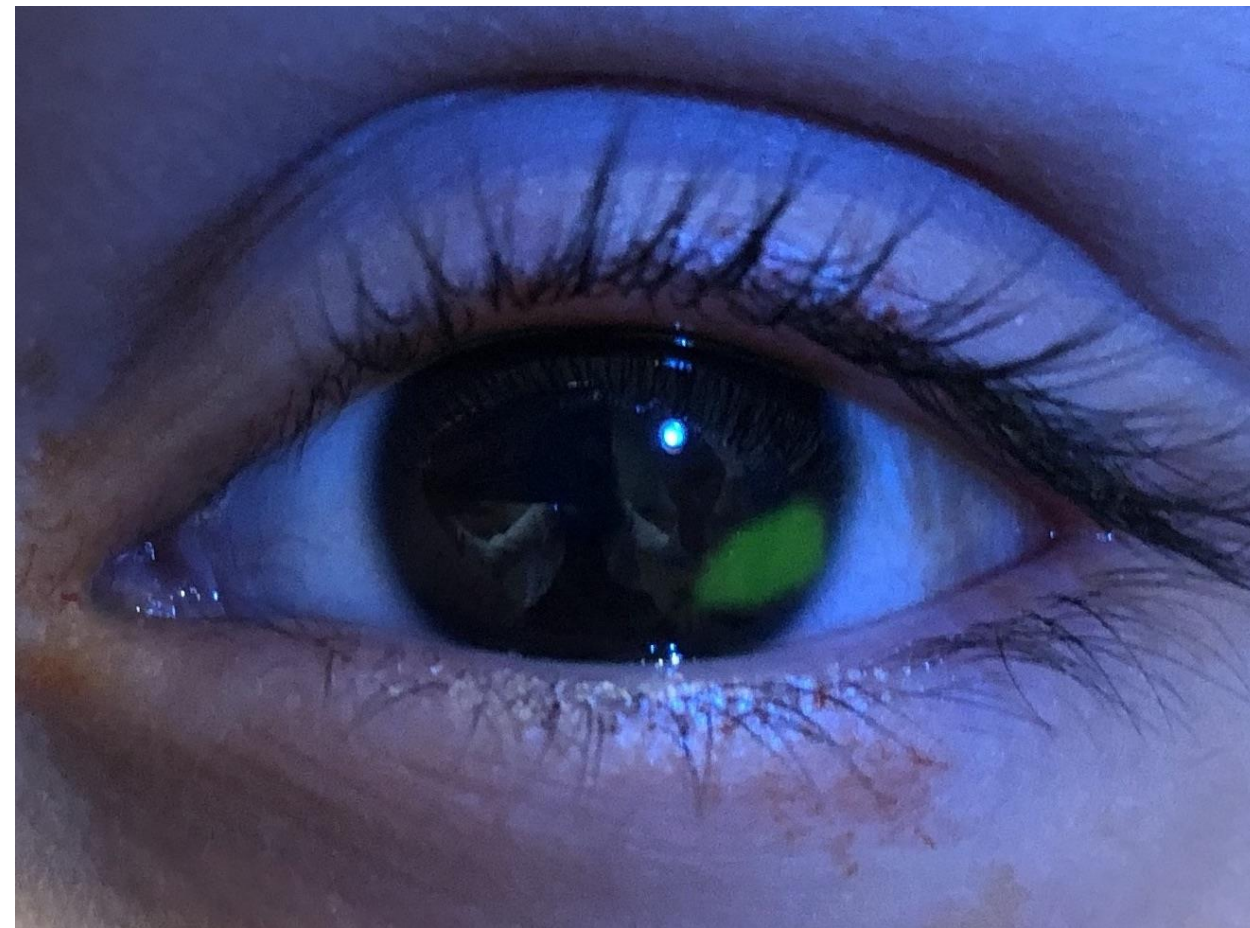


Visual acuity compares affected eye to unaffected eye and establishes a baseline for follow up.



FLUORESCEIN STAIN

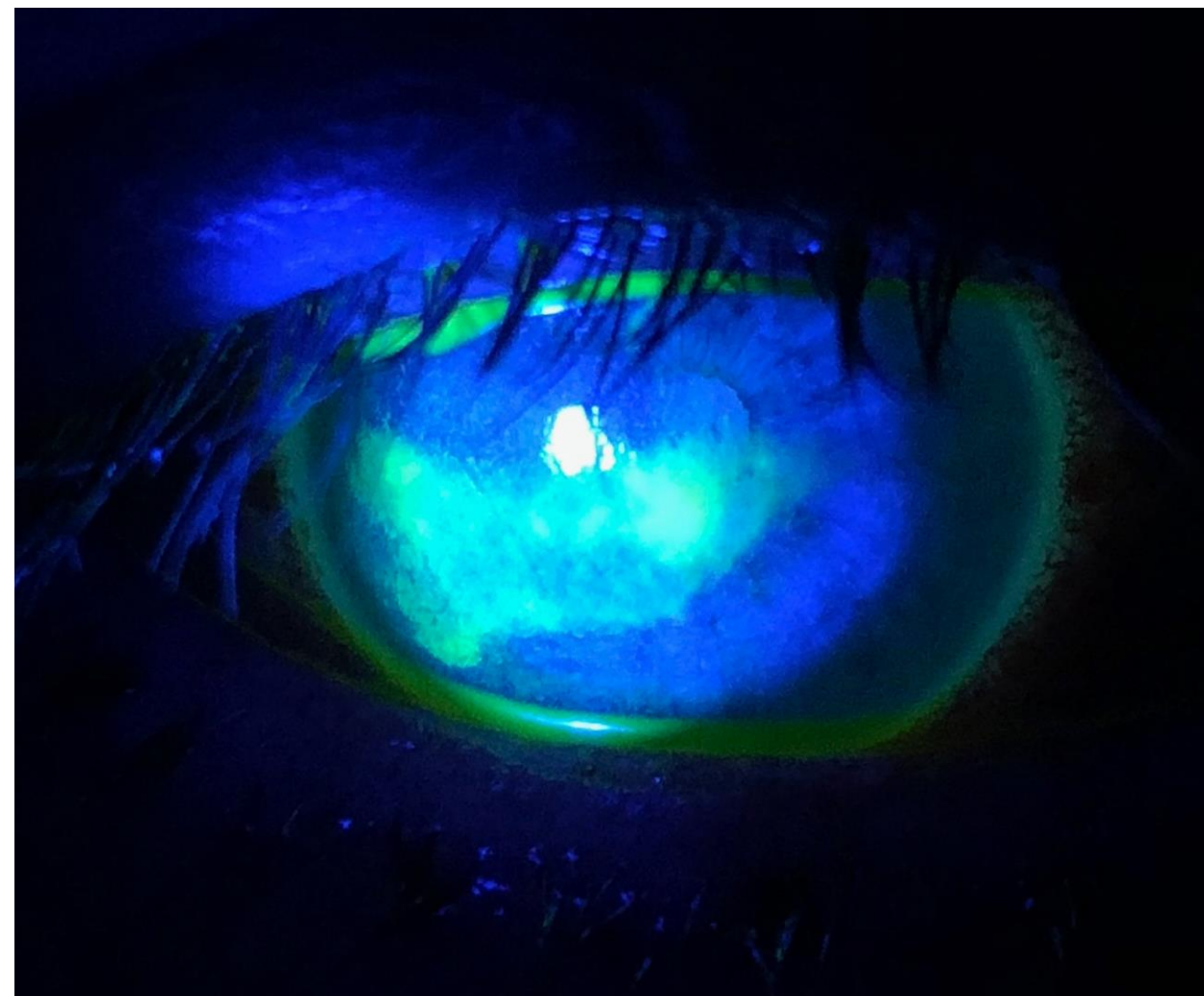
FLUORESCEIN EXAM



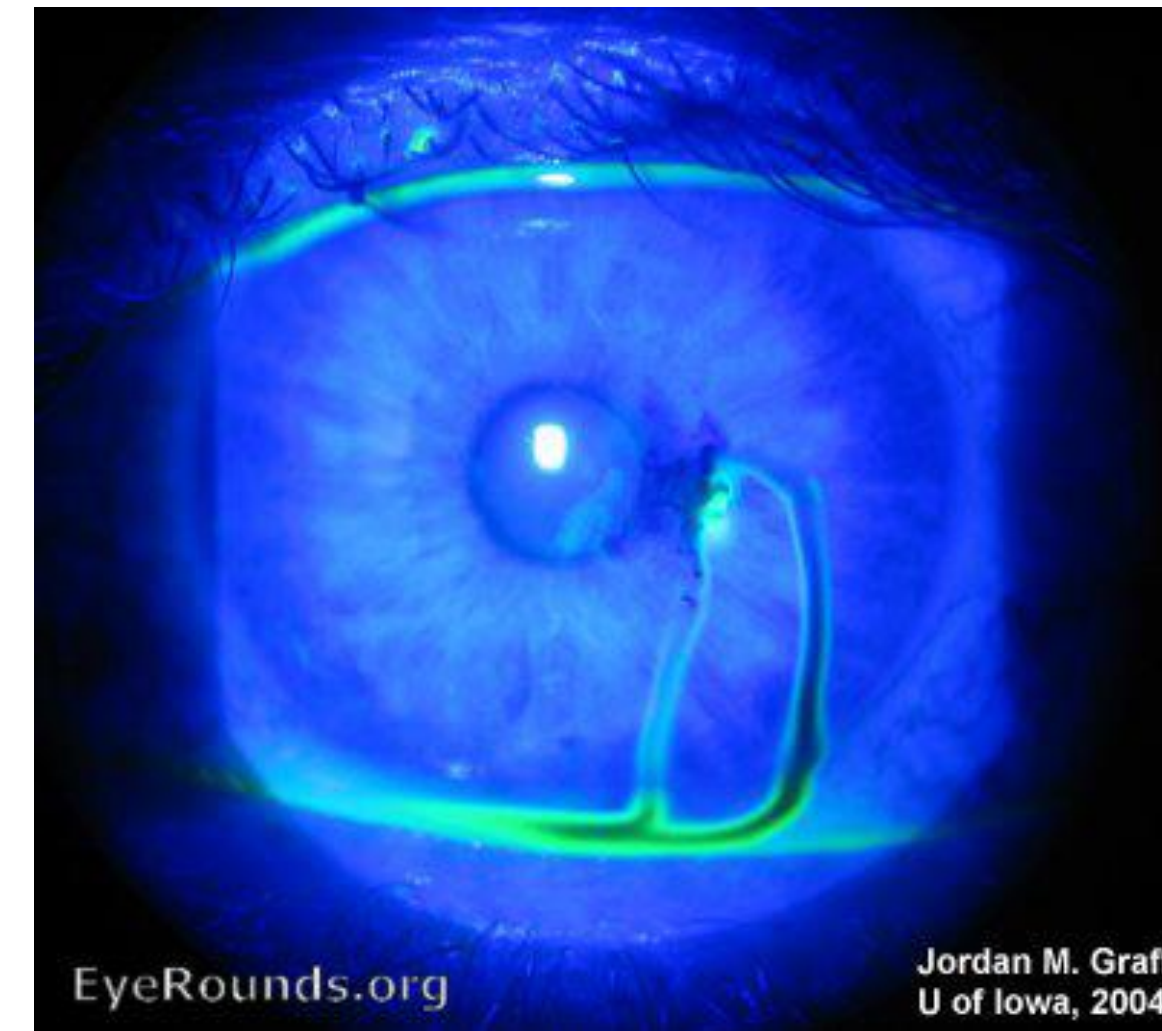
Corneal abrasion



Dendritic pattern (Herpes keratitis)



Corneal ulcer



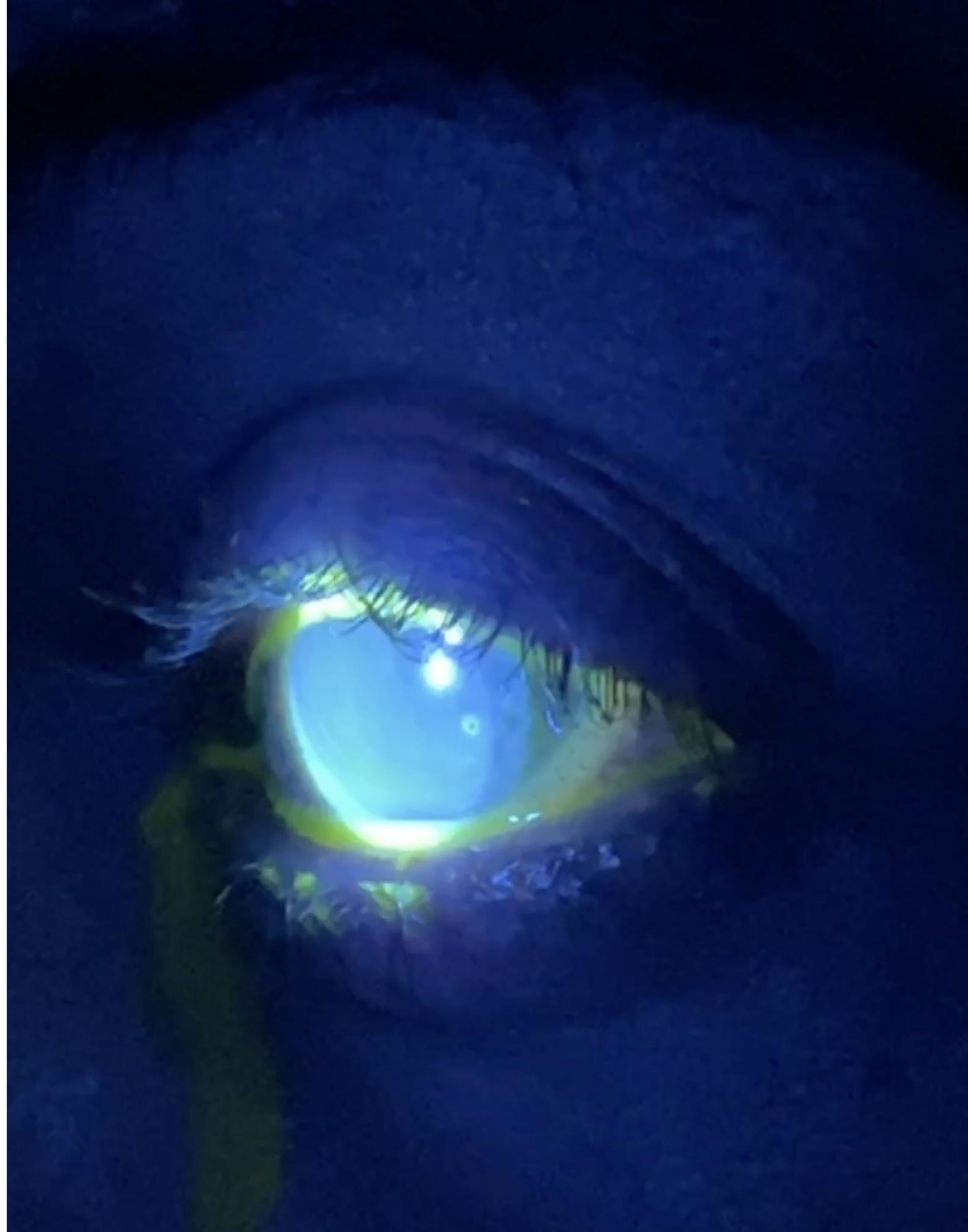
Seidel sign (rupture globe)

CASE

Fluorescein stain

- Corneal foreign body with fluorescein uptake

No Seidel sign (no evidence of globe rupture)





Slit lamp vs Wood's lamp



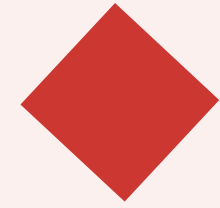
PERSPECTIVES



Prospective study comparing Wood's lamp to slit lamp:

- P** 73 adults presenting to an urgent ophthalmology clinic
- I** Wood's lamp exam performed first
- C** Slit lamp exam performed afterwards (gold standard)
- O** How does the sensitivity of the Wood's lamp compare to the slit lamp?

PITFALLS



Wood's lamp overall sensitivity 52%

The Wood's lamp missed:

- 7/16 corneal abrasions
- 5/10 corneal ulcers
- 4/9 foreign bodies
- 4/4 non-herpetic keratitis
- 1/2 herpetic keratitis
- 4/5 rust rings

UNACCEPTABLE

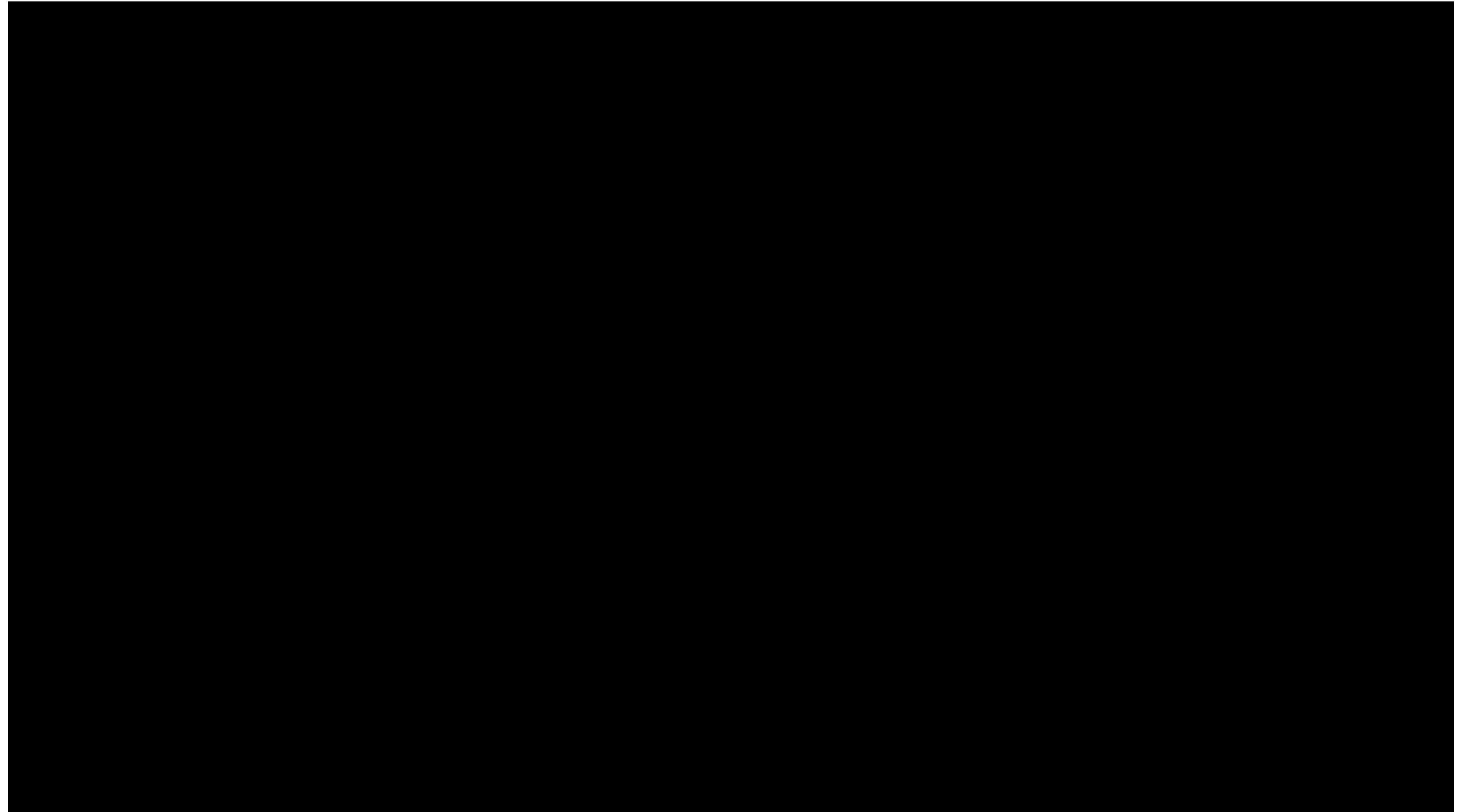
PERSPECTIVES



What accounts for the discrepancy?

- Magnification?
- Light wavelength?
- Suboptimal environment?

CASE RESOLUTION



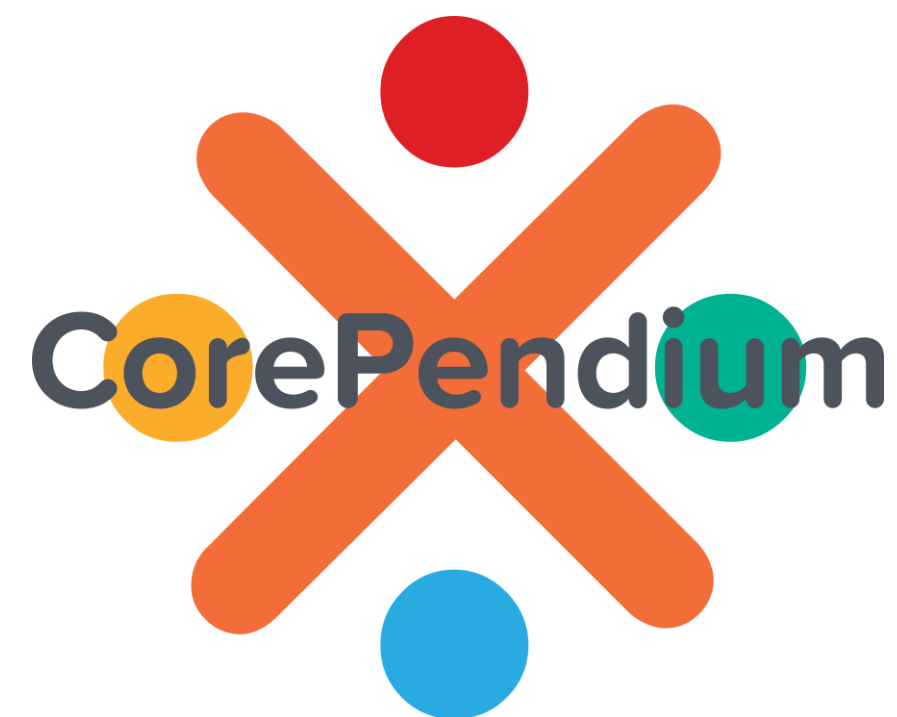
PERSPECTIVES



This can be done in an urgent care if proper equipment is available.



Hundreds more videos and thousands more clinical images with UC Maximus subscription.



This lecture was based on CorePendium, a digital textbook of emergency medicine and urgent care (included with a UC Max subscription).

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“If It Ain’t Broke...” Orthopedic Tidbits

Whitney Johnson, MD MS FAAEM

Why do we care about orthopedic injuries?

- Total miss rate 1-3%
- Second highest cost of litigation against docs, behind only MI
 - 20% of claims paid
- Missed injuries
 - Scaphoid fracture
 - Cases that cannot be diagnosed on initial imaging 15-20%
 - Growth plate disruption
 - Posterior shoulder dislocation
 - Cases initially missed 40-80%

Why do we miss orthopedic injuries?

State of the healthcare system

Inadequate physical exam

Misinterpreting x-rays

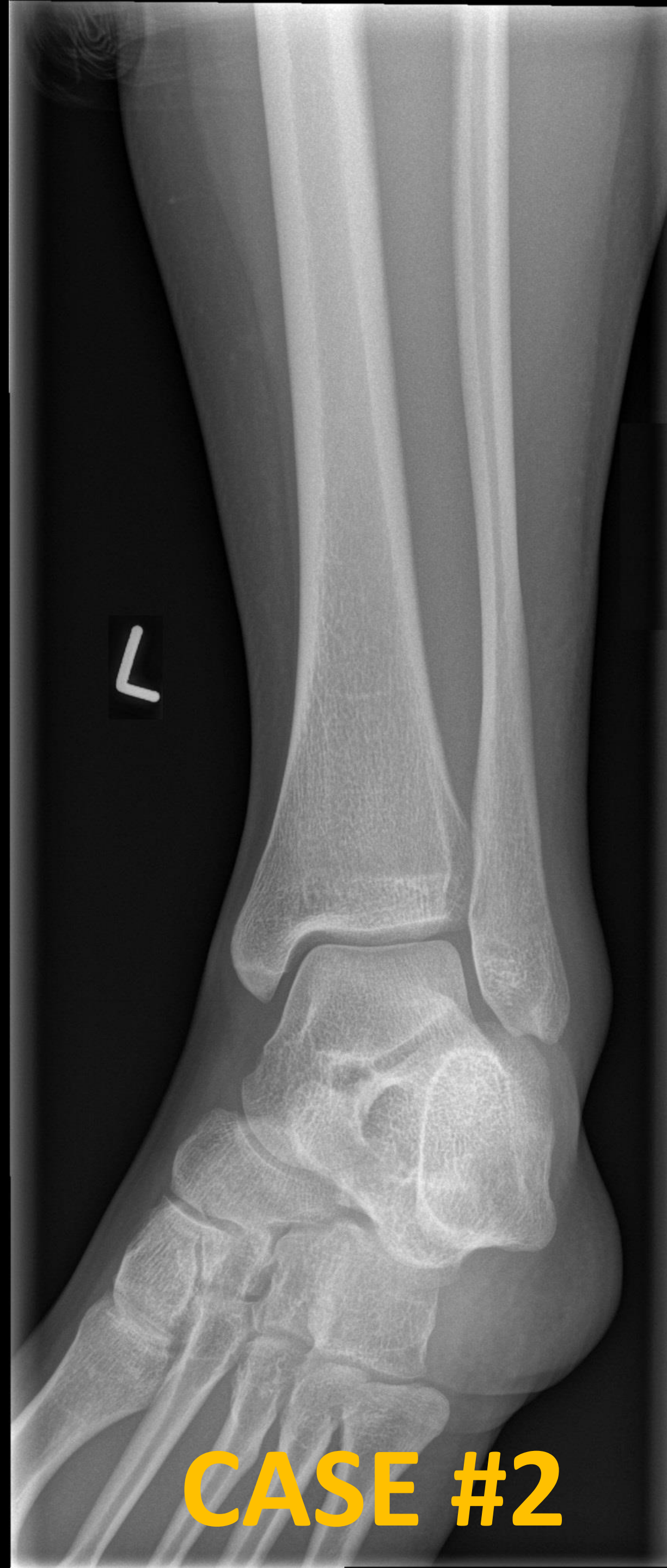
Occult fracture

Thoroughly Examine the Patient



CASE #1







© Danielle Campagne, MD

© Jessica

Review your own films

CASE

- 54-year-old female fell on outstretched right arm. She immediately had pain in the right shoulder
- Exam: extremely limited and painful ROM in the right shoulder. Neurovascular examination was normal.
- Anteroposterior position (AP), lateral, and scapular Y-view x-rays were interpreted as normal.
- Dx: Shoulder sprain
- Tx: Sling, and referral to her primary care physician for follow-up.



CASE #3



R
CCG

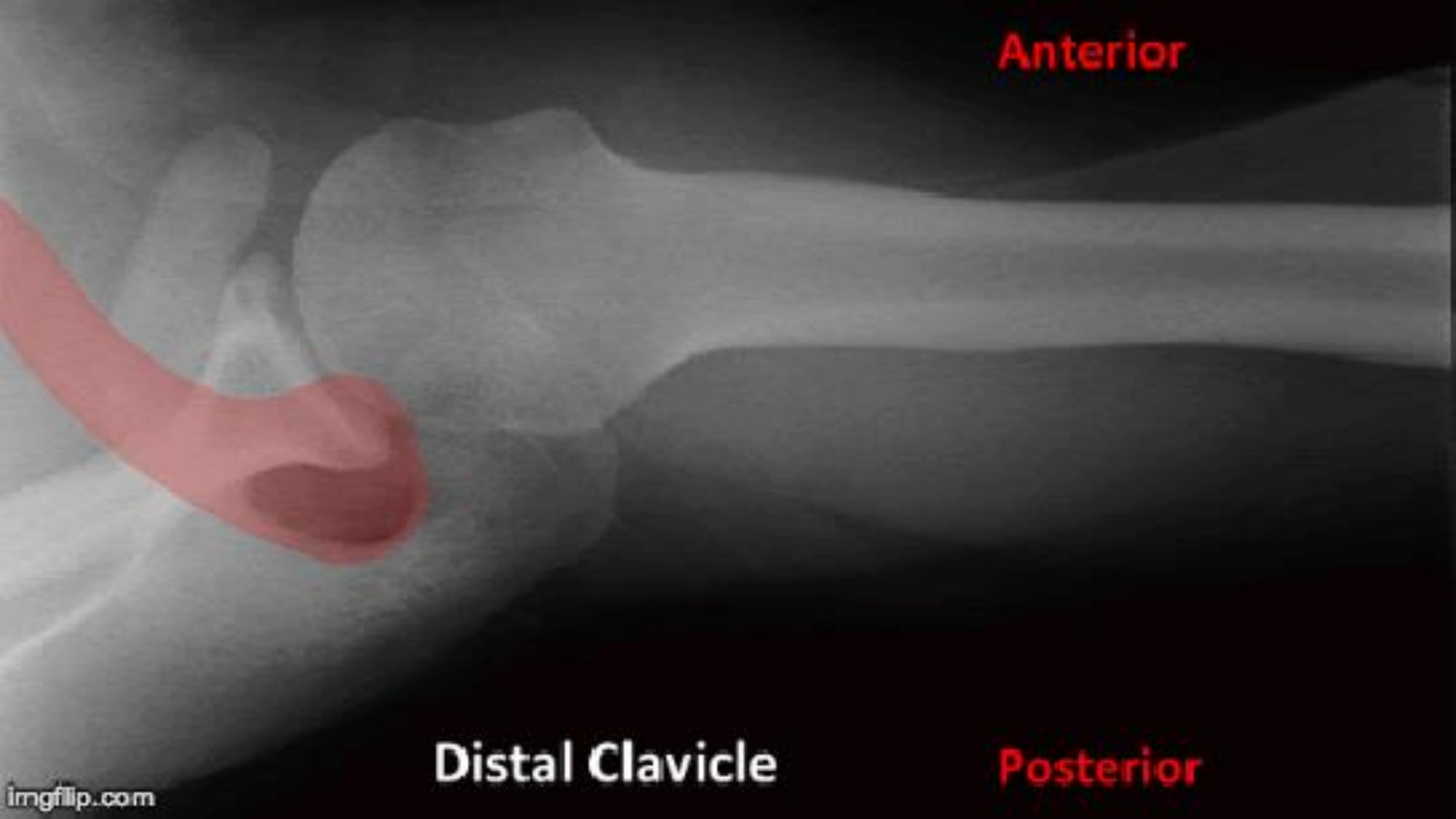


R
CCG



CASE #4

Anterior



Distal Clavicle

Posterior

Don't Forget Secondary Signs of Injury

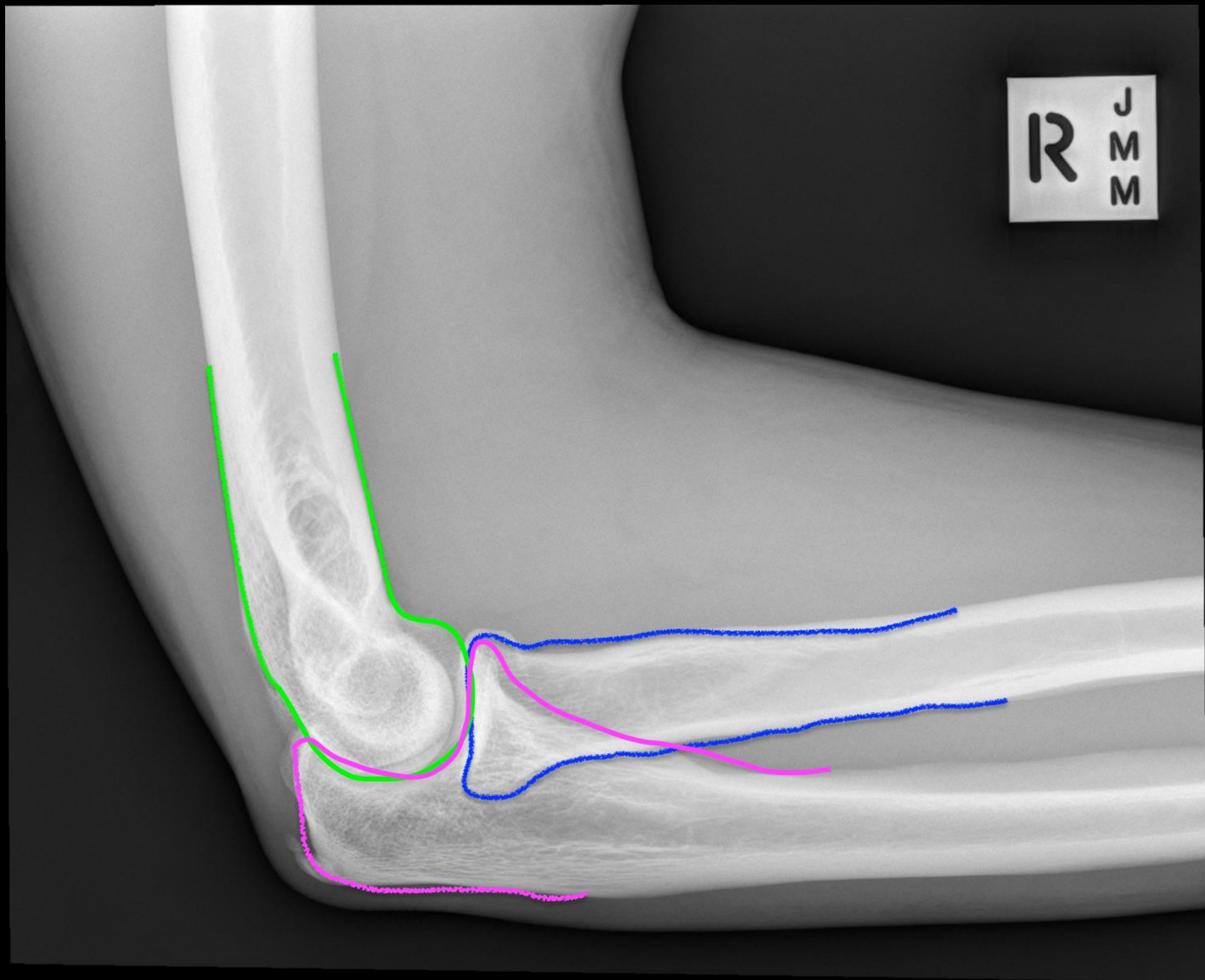
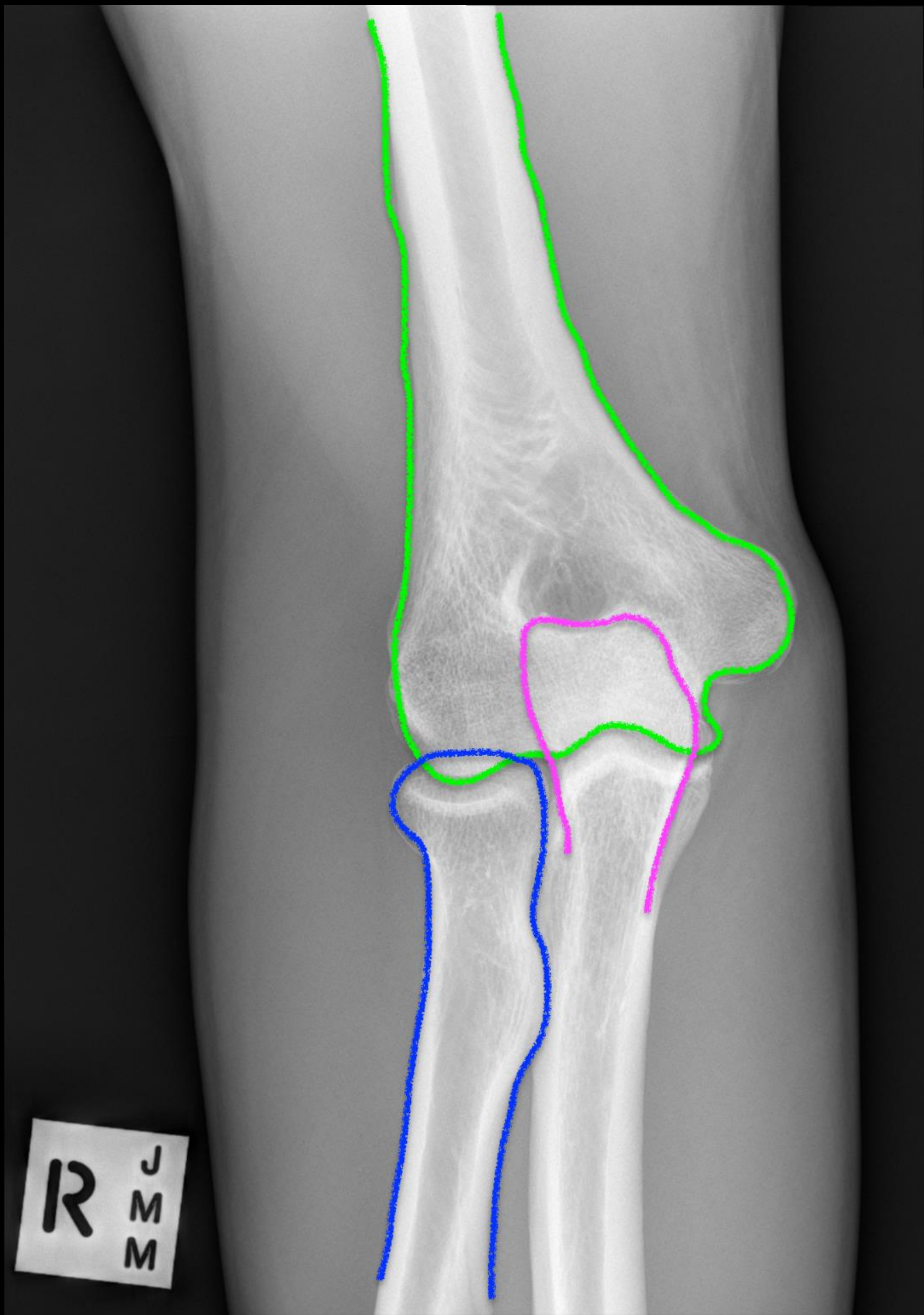
15:10:

R
AGF

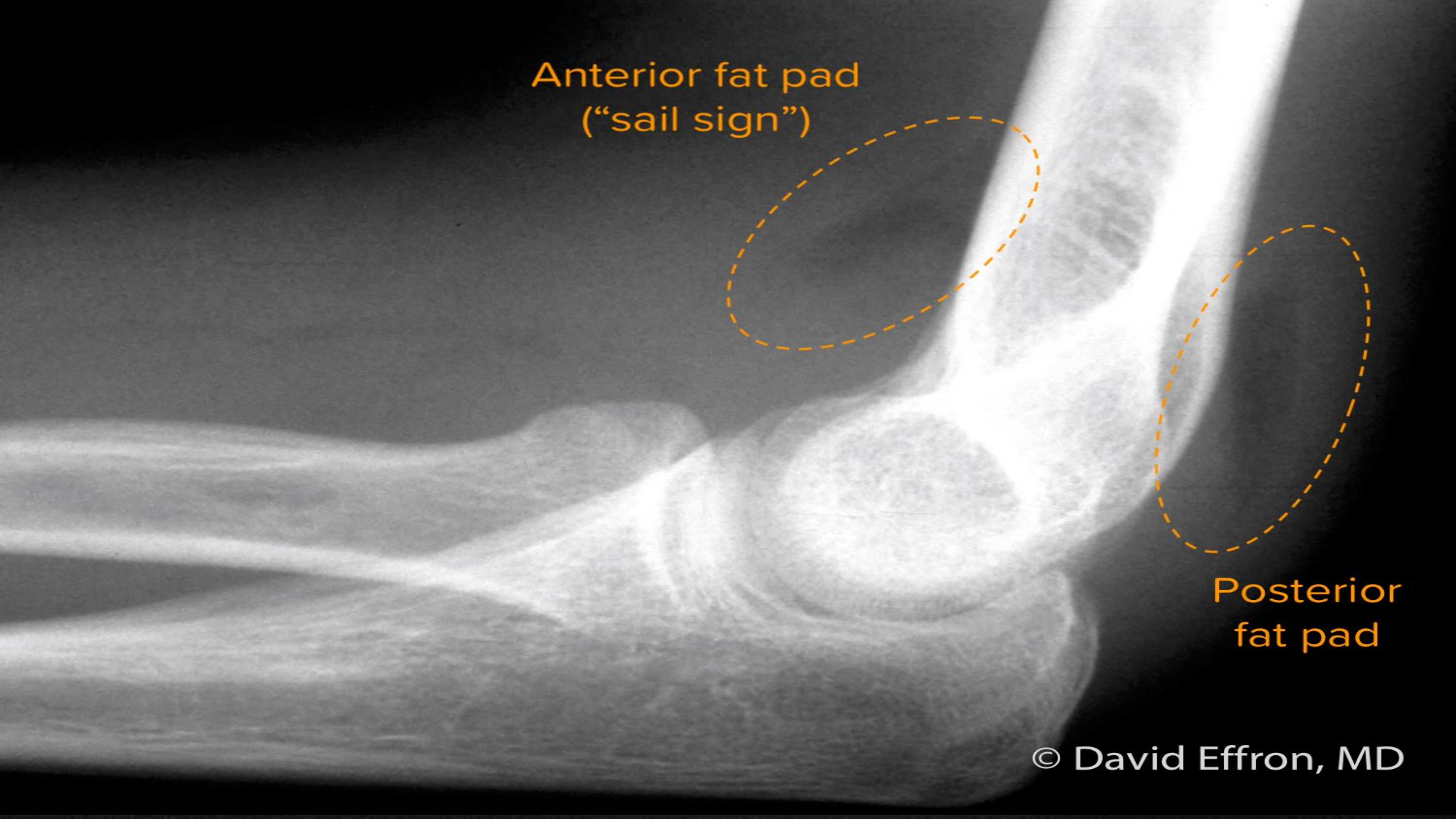
R
AGF



CASE #5



R
J
M
M



Anterior fat pad
("sail sign")

Posterior
fat pad



CASE #6



lipohaemarthrosis

L
horizontal beam





CASE #7



SUMMARY

Ortho Tips

ALWAYS get a good history & physical!!

One view is no view

Consider exam and/or imaging of joint above and below

If unsure, compare it to another side.

When in doubt, splint it

Don't hesitate to bring the patient back for repeat films.

CLOSING THOUGHTS

If things don't look right....if the symptoms don't make sense...if the exam doesn't fit....

SLOW DOWN

PAUSE

RE-CONSIDER

UCMaximus



The Great UC Debate



all men are created equal,
with certain unalienable Rights,
that among these are Life, Liberty
& the pursuit of Happiness.
That to secure these rights,
Governments are instituted among Men,
deriving their just powers from the
consent of the governed. That, whenever
any Form of Government becomes
destructive to these ends, it is the Right
of the People to alter or to abolish it,
and to institute new Government,
laying its foundation on such
principles and organizing its Powers in such
manner as to them shall seem most
likely to promote their Safety and Happiness.

We hold these truths to be self-evident,
that all men are created equal,
that they are endowed by their Creator
with certain unalienable Rights,
that among these are Life, Liberty
& the pursuit of Happiness.
That to secure these rights,
Governments are instituted among Men,
deriving their just powers from the
consent of the governed. That, whenever
any Form of Government becomes
destructive to these ends, it is the Right
of the People to alter or to abolish it,
and to institute new Government,
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principles and organizing its Powers in such
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likely to promote their Safety and Happiness.





Topic:

Trigger point injections should be provided for patients suffering from back pain in the UC



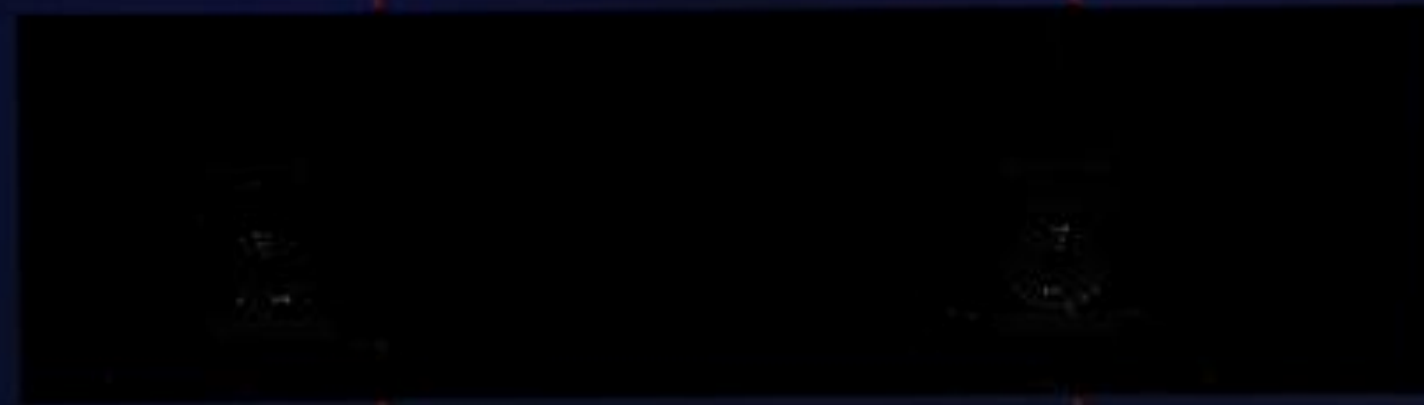
PRO



PRO



CON



PRO



CON



PRO



Kocak A, et al

Comparison of intravenous NSAIDs and trigger point injection for low back pain in ED: A Prospective RCT

2019



CON



Tekin E, et al.

The Effectiveness of Intradermal Sterile Water Injection for Low Back Pain In the ED: A Prospective RCT 2021





Topic:

Trigger point injections should be provided for patients suffering from back pain in the UC

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If it's Not in the DDX, It won't be in the Diagnosis

Michael Weinstock, MD



A patient is lying on a CT scanner table, positioned inside the circular gantry of the scanner. The patient is covered with a blue blanket. In the background, a medical professional is visible at a control console. The scene is viewed through the circular opening of the scanner.

**Can't Miss Causes of
Headache**

Not seen on Brain CT

Meningitis/Encephalitis



A close-up photograph of a woman with dark hair, wearing a white top, holding both hands to her head in a gesture of pain or distress. Her eyes are closed, and her mouth is slightly open. The background is blurred, showing what appears to be a window with light coming through. The overall tone is somber and clinical.

Meningitis/Encephalitis

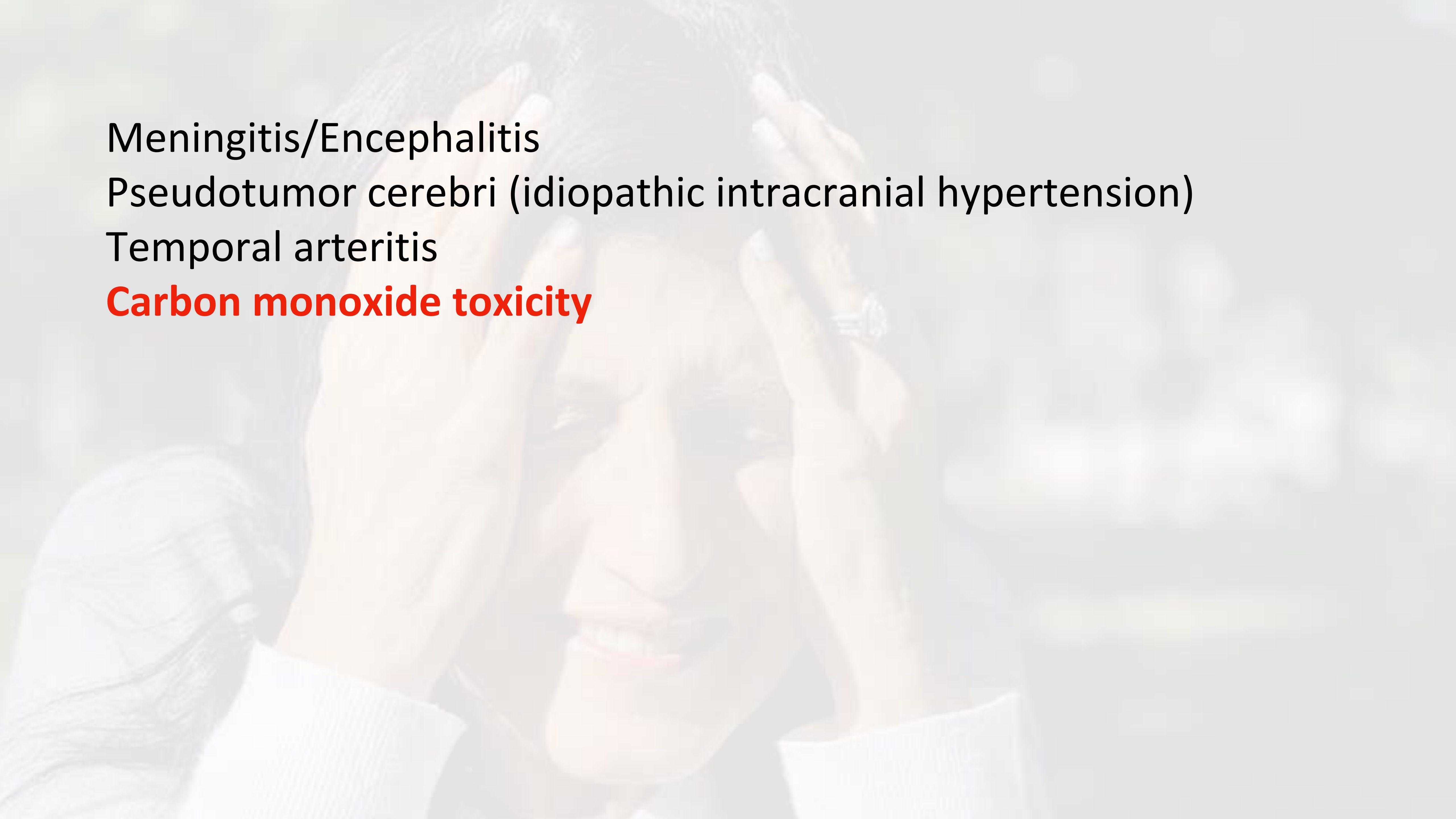
Pseudotumor cerebri (idiopathic intracranial hypertension)

A woman with dark hair is shown from the chest up, holding both hands to her head in a gesture of pain or distress. Her eyes are closed, and her mouth is slightly open. She is wearing a light-colored, possibly white, top. The background is a soft-focus outdoor scene with greenery and a building. The overall image has a semi-transparent white overlay where the text is located.

Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

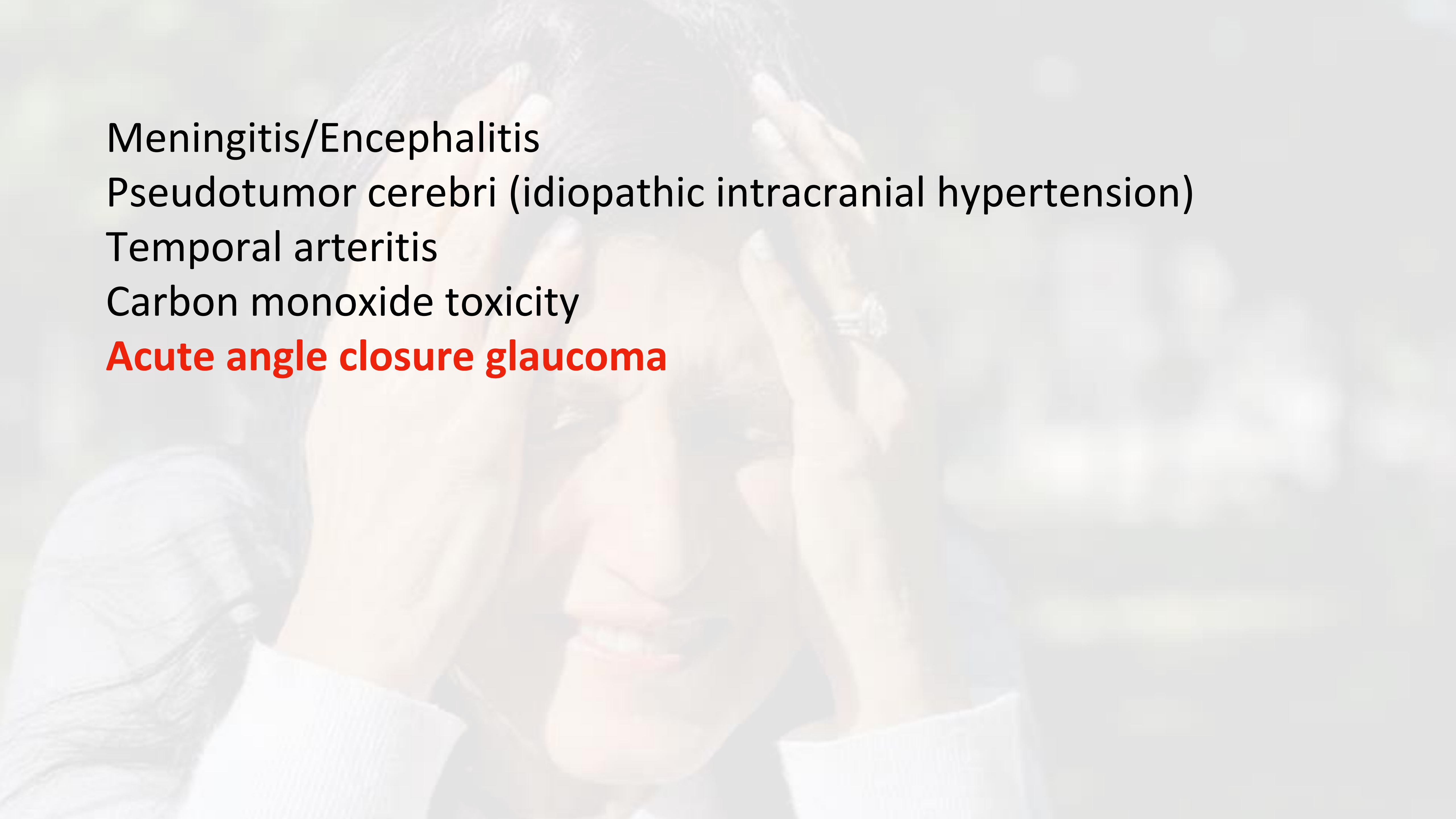
A woman with dark hair is shown from the chest up, holding both hands to her head in a gesture of pain or distress. Her eyes are closed, and her mouth is slightly open. The background is a blurred outdoor setting with trees and a building. The image is semi-transparent, allowing text to be overlaid on the left side.

Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

A woman with dark hair is shown from the chest up, holding both hands to her temples. She has a pained expression, with her eyes closed and a grimace. The background is a blurred outdoor setting with trees and a building. The image is semi-transparent, allowing text to be overlaid on the left side.

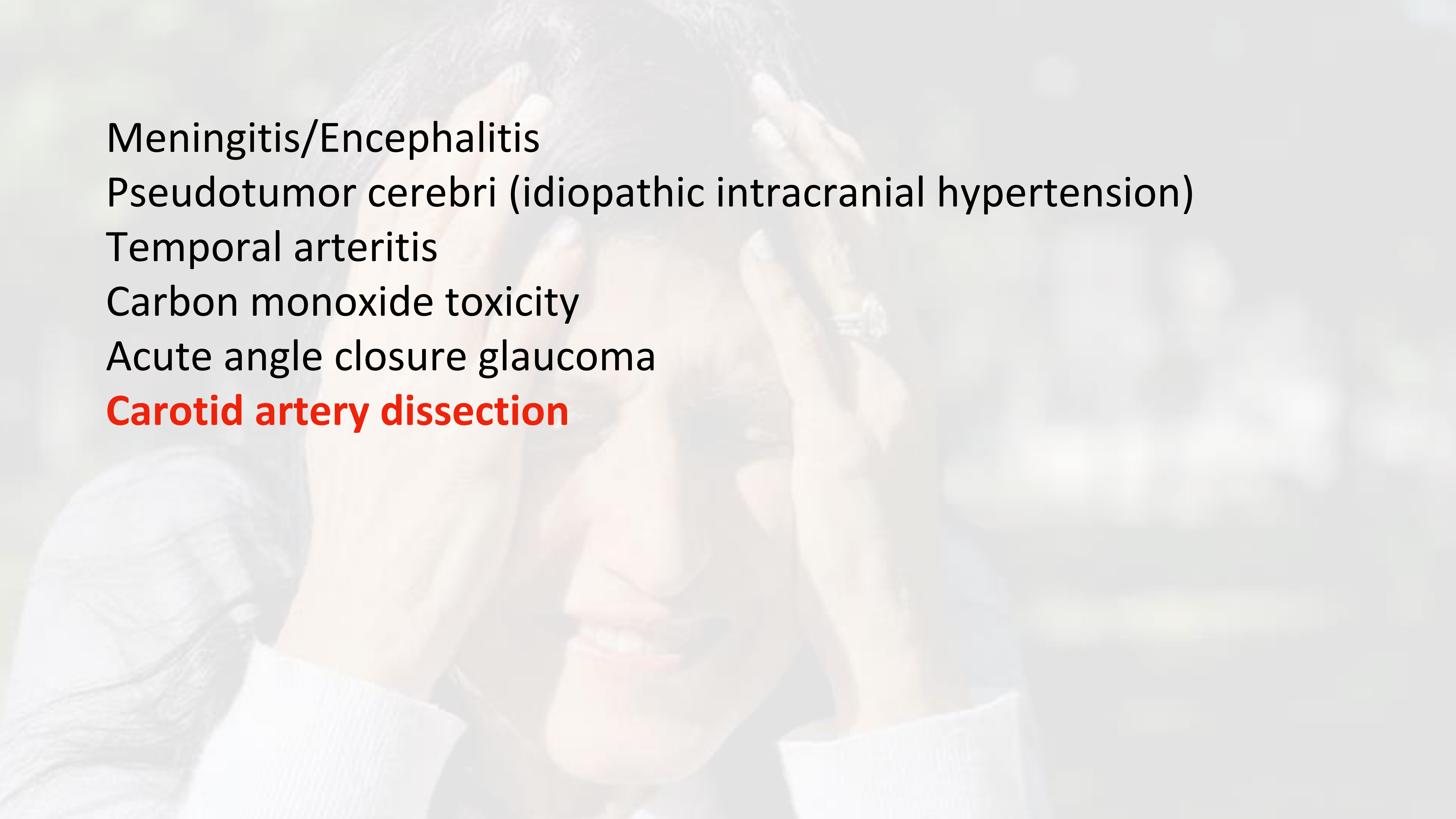
Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

Acute angle closure glaucoma

A woman with dark hair is shown from the chest up, holding both hands to her head in a gesture of pain or distress. She has a pained expression on her face. The background is a blurred outdoor setting with trees and a building.

Meningitis/Encephalitis

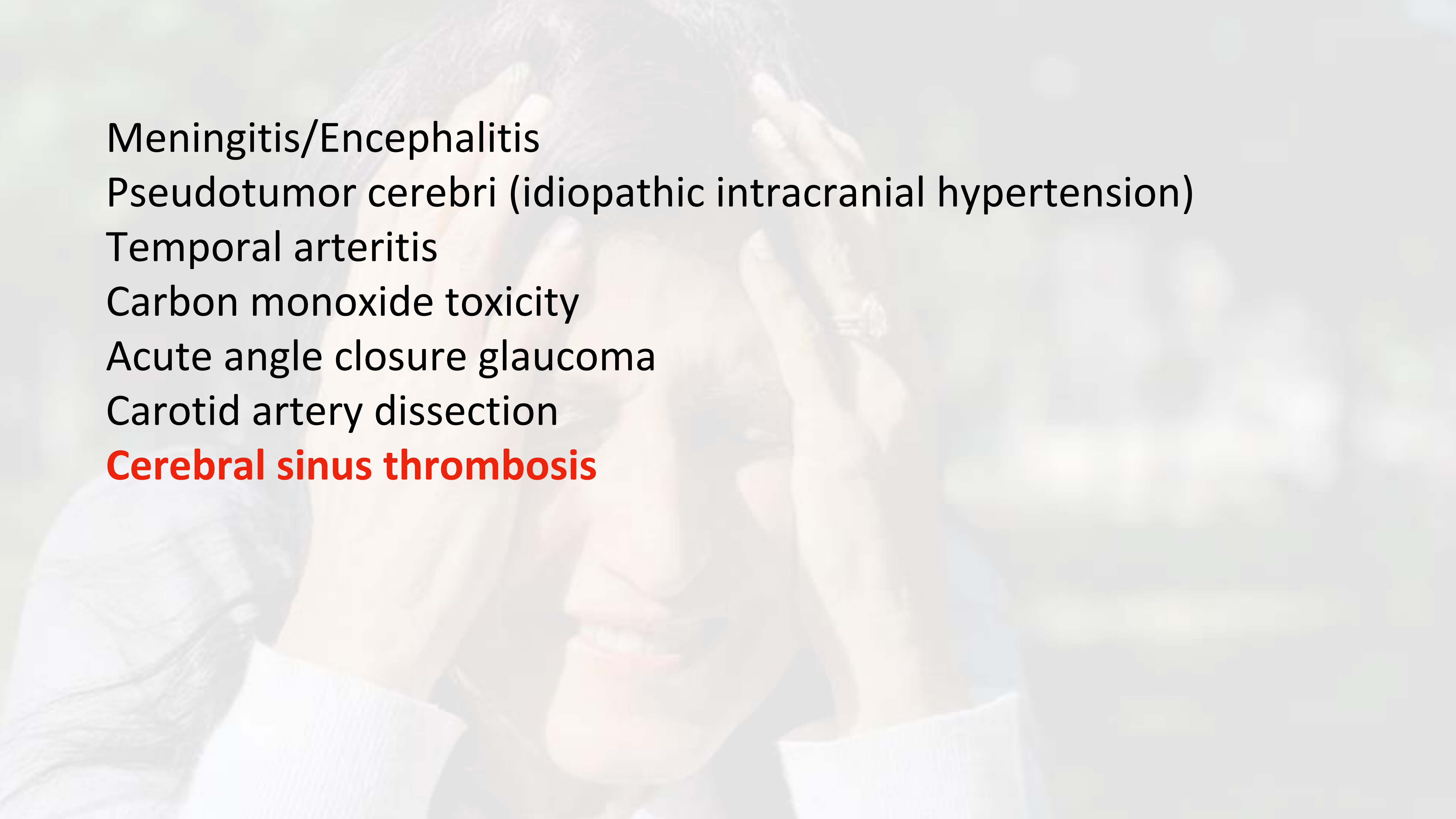
Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

Acute angle closure glaucoma

Carotid artery dissection

A woman with dark hair is shown from the chest up, holding both hands to her head in a gesture of pain or distress. She has a pained expression on her face. The background is a soft-focus outdoor scene with trees and a building.

Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

Acute angle closure glaucoma

Carotid artery dissection

Cerebral sinus thrombosis

A woman with dark hair is shown from the chest up, holding both hands to her temples. She has a pained expression, with her eyes closed and a slight grimace. The background is a soft-focus outdoor scene with trees and a bright sky. The overall image has a semi-transparent white overlay where the text is placed.

Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

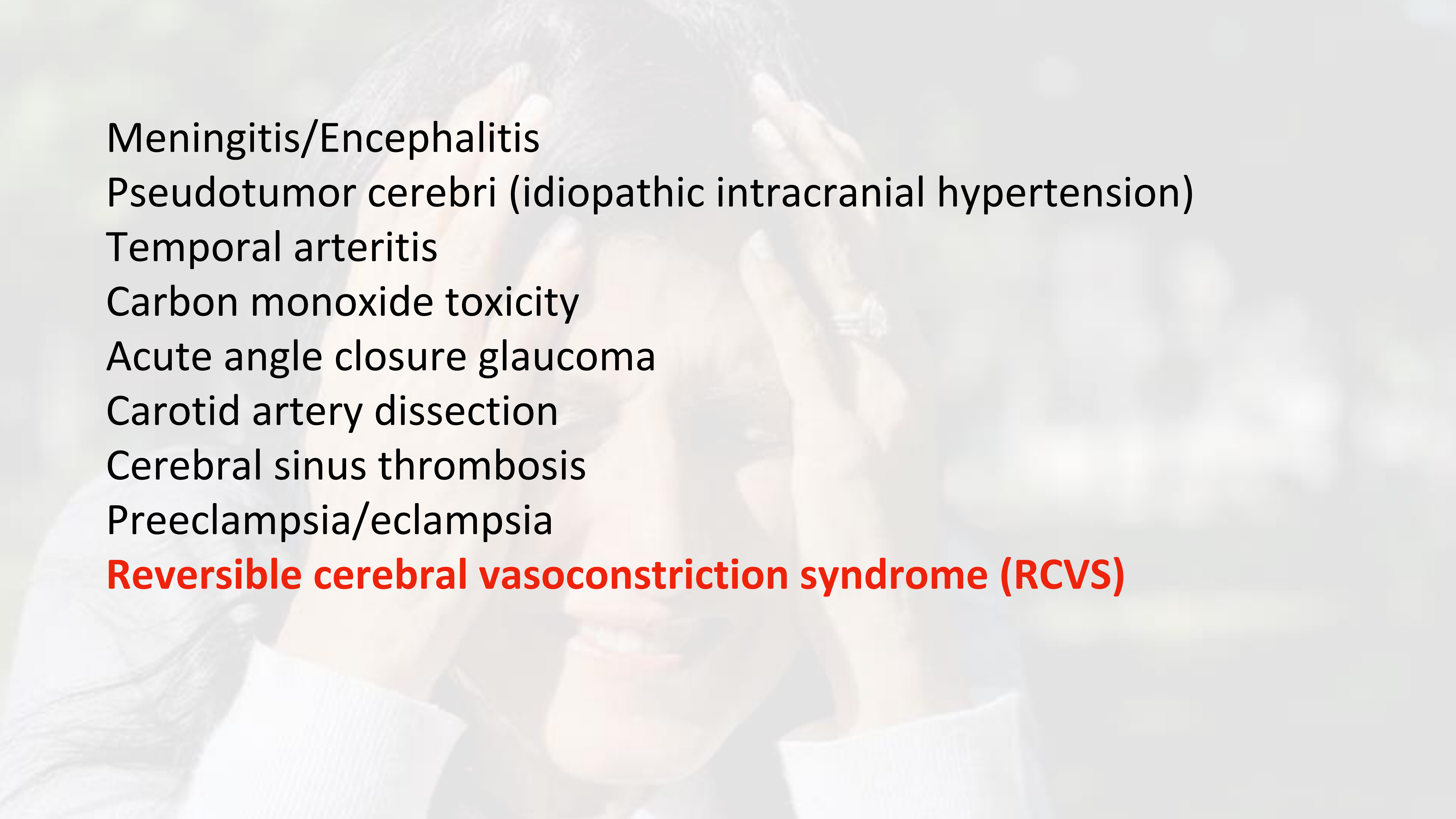
Carbon monoxide toxicity

Acute angle closure glaucoma

Carotid artery dissection

Cerebral sinus thrombosis

Preeclampsia/eclampsia

A woman with dark hair is shown from the chest up, holding both hands to her head in a gesture of pain or distress. She has a pained expression on her face. The background is a soft, out-of-focus outdoor setting with trees and a bright sky. The text is overlaid on the left side of the image.

Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

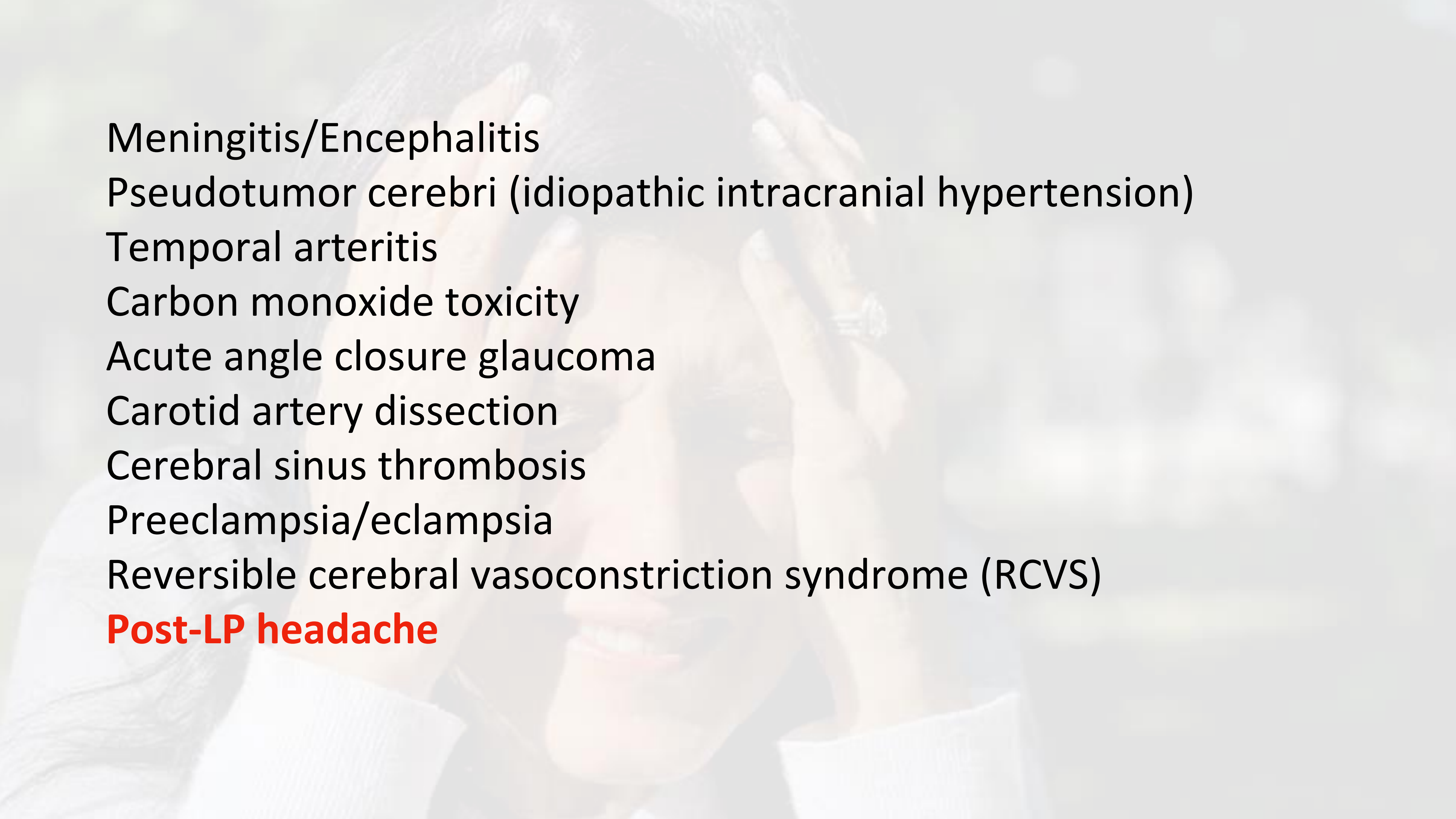
Acute angle closure glaucoma

Carotid artery dissection

Cerebral sinus thrombosis

Preeclampsia/eclampsia

Reversible cerebral vasoconstriction syndrome (RCVS)

A woman with long dark hair is shown from the chest up, holding both hands to her head in a gesture of pain or distress. She is wearing a light-colored, possibly white, top. The background is a soft, out-of-focus grey. The text is overlaid on the left side of the image.

Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

Acute angle closure glaucoma

Carotid artery dissection

Cerebral sinus thrombosis

Preeclampsia/eclampsia

Reversible cerebral vasoconstriction syndrome (RCVS)

Post-LP headache



Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

Acute angle closure glaucoma

Carotid artery dissection

Cerebral sinus thrombosis

Preeclampsia/eclampsia

Reversible cerebral vasoconstriction syndrome (RCVS)

Post-LP headache

Subarachnoid hemorrhage (SAH)?

Meningitis/Encephalitis

Pseudotumor cerebri (idiopathic intracranial hypertension)

Temporal arteritis

Carbon monoxide toxicity

Acute angle closure glaucoma

Carotid artery dissection

Cerebral sinus thrombosis

Preeclampsia/eclampsia

Reversible cerebral vasoconstriction syndrome (RCVS)

Post-LP headache

Subarachnoid hemorrhage (SAH)?

Brain mass?



**If it's not in the
differential...
it won't be in the
diagnosis!**

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UCMax

Case Files

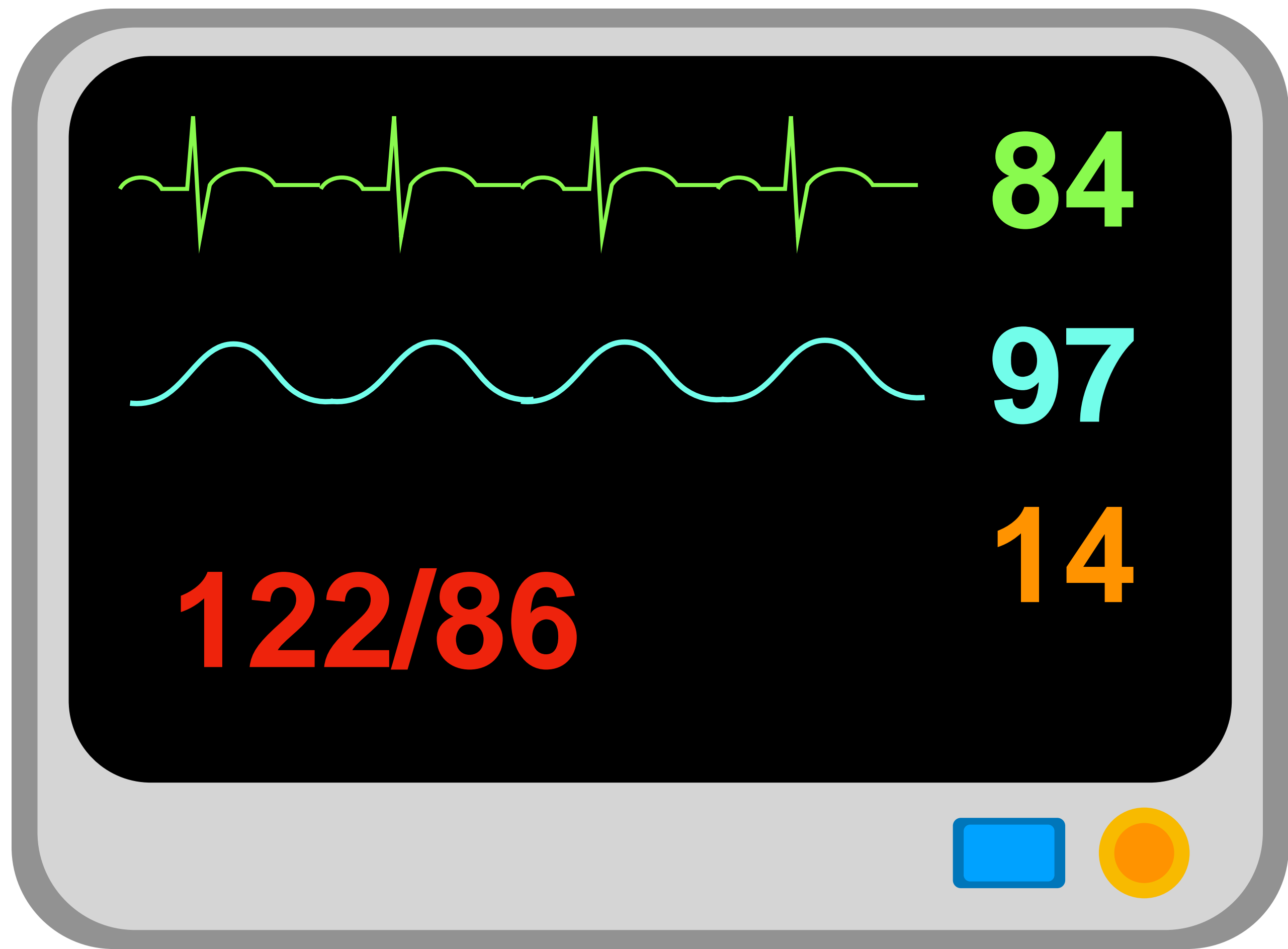
Scott Kobner, MD

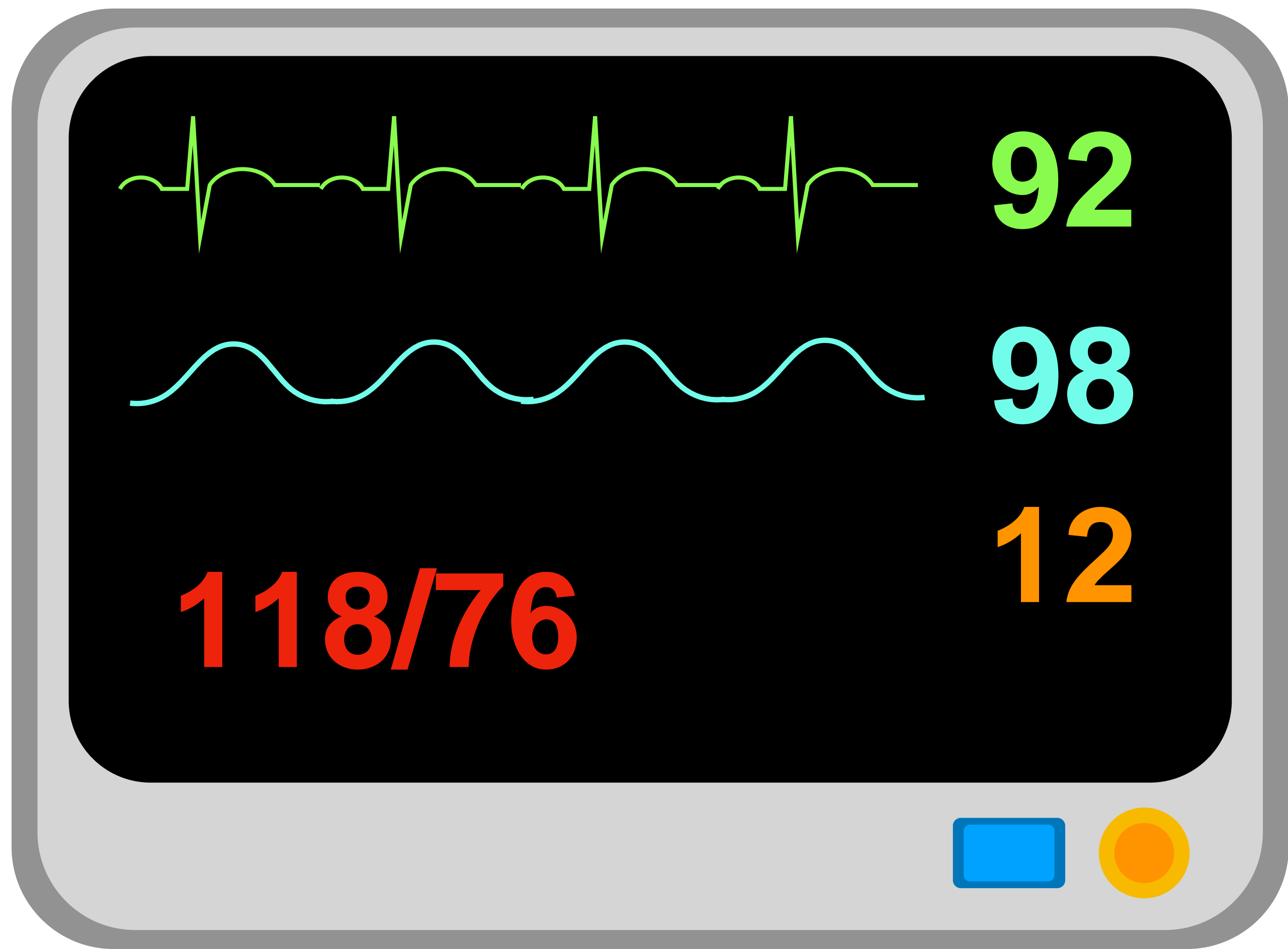
Jess Mason, MD

Whitney Johnson, MD MS

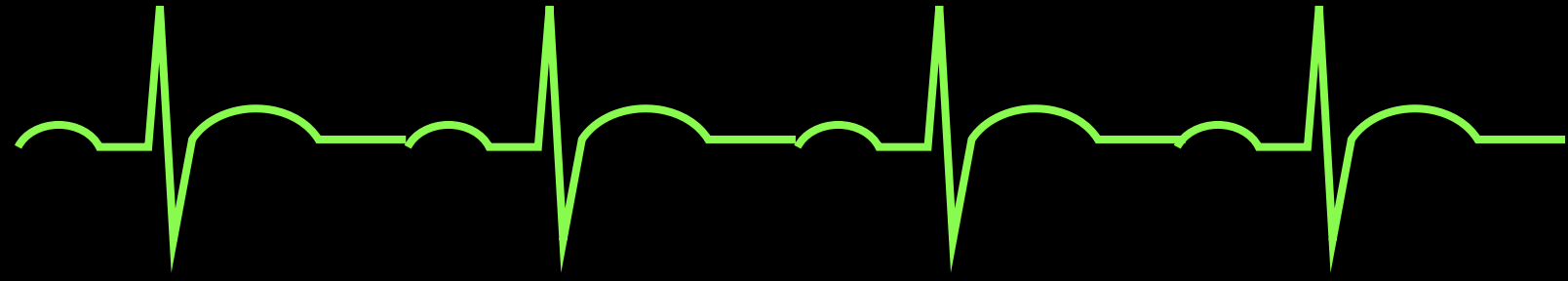
Kevin Wilcox, DO

Michael Weinstock, MD

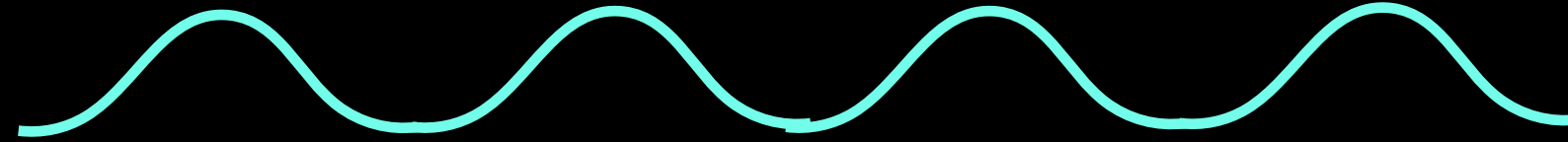








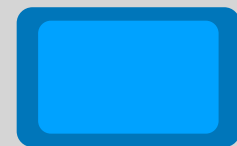
128



98

112/71

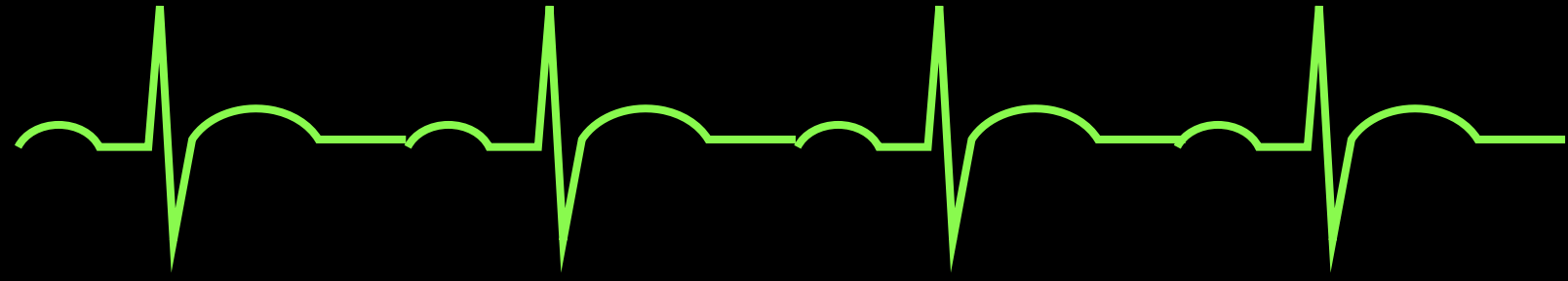
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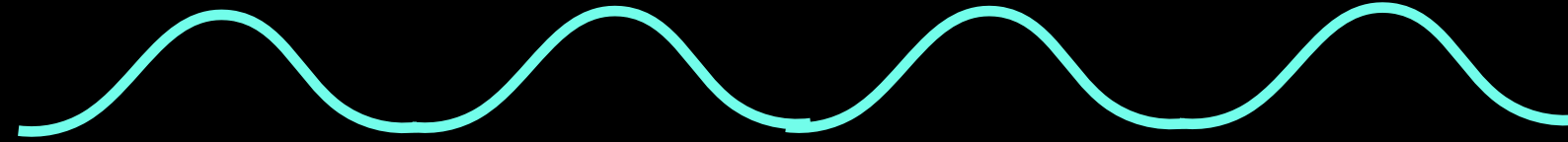




Measles
Syphilis
RMSF
Meningitis
Toxic Shock
DRESS
Vasculitis
Adult Onset Stills Disease
SJS/TENS
Cutaneous T cell Lymphomas



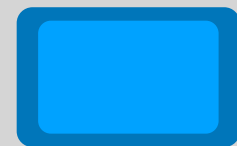
128




98

112/71

22



A close-up photograph of a person's arm showing a severe allergic reaction. The skin is covered in a dense, raised, red rash with small blisters, characteristic of a severe drug reaction. The text is overlaid on the right side of the image.

Drug Reaction with Eosinophilia Systemic Symptoms









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