Assessing the Patient with Headache in Primary Care

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David PB Watson Disclosures: last 3 years

Consulting/ Advisory Board:
Abbvie
Pfizer
Teva
Travel and Educational Support
BASH Hull
Idorsia
Lundbeck
MTIS
Teva

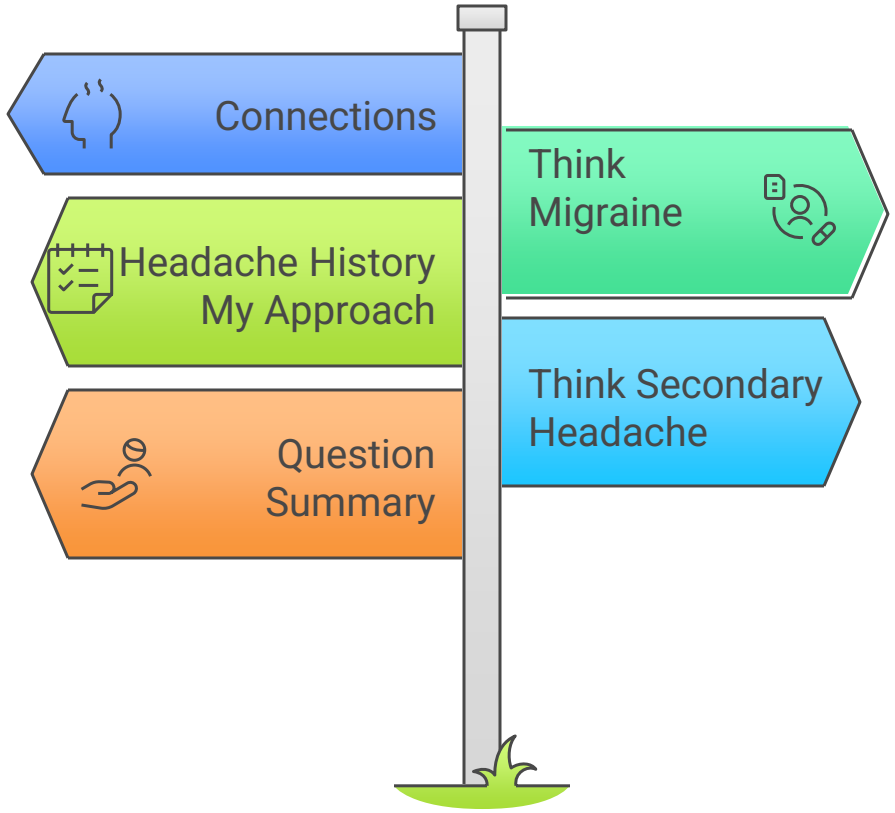
Honoraria for speaking:

- Abbvie
- Idorsia
- Pfizer
- Teva

Other:

- Vice Chair of The British Association for the Study of Headache
- Group member for SIGN 155 update, Reviewer of Scottish Headache Pathway, Facial pain pathway group member.
- Joint clinical lead for Migraine Trust/NHS Grampian pharmacy project

Session overview



Connections: Four Types of Headache

Yawning	Oxygen	Papilloedema	Metabolic Disease
Hypothalamus	Neck Stiffness	Aura	Photophobia
Lacrimation	Low IC Pressure	High IC Pressure	Pachymeningeal Enhancement
Lie Down	Restlessness	Acetazolamide	CSF Leak

Patients presenting to Primary Care mostly have migraine

Landmark study

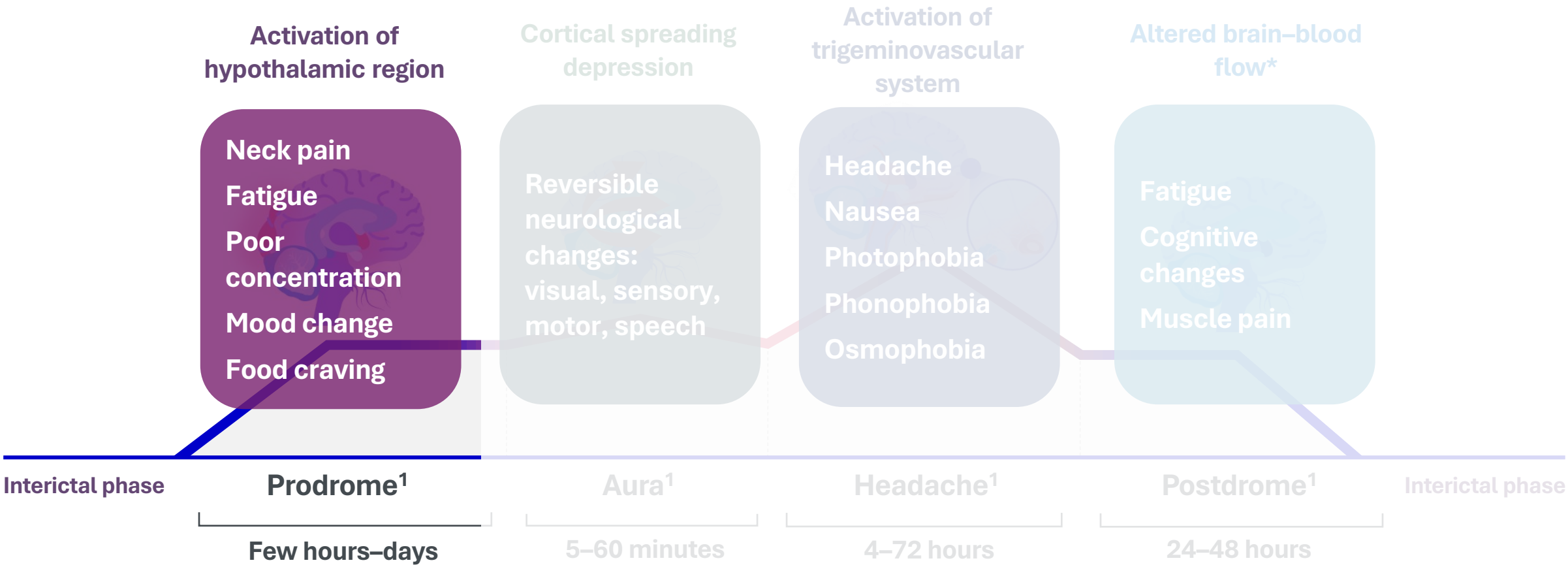
Conclusion is “consider all disabling episodic headache with a normal physical examination to be migraine” : 94%

- If patients were given a diagnosis of migraine by the assessing primary care physician, 98% met ICHD criteria for migraine

- Of patients with non migraine diagnosis of primary headache, diary evidence showed 82% had migraine, most common misdiagnosis is tension type headache or sinus headache

Landmark Study, Tepper et al ,Headache 2004 Oct,44(9):856-64

What do people experience during a migraine attack?



Adapted from Ferrari MD, *et al. Nat Rev Dis Primers* 2022.[1]

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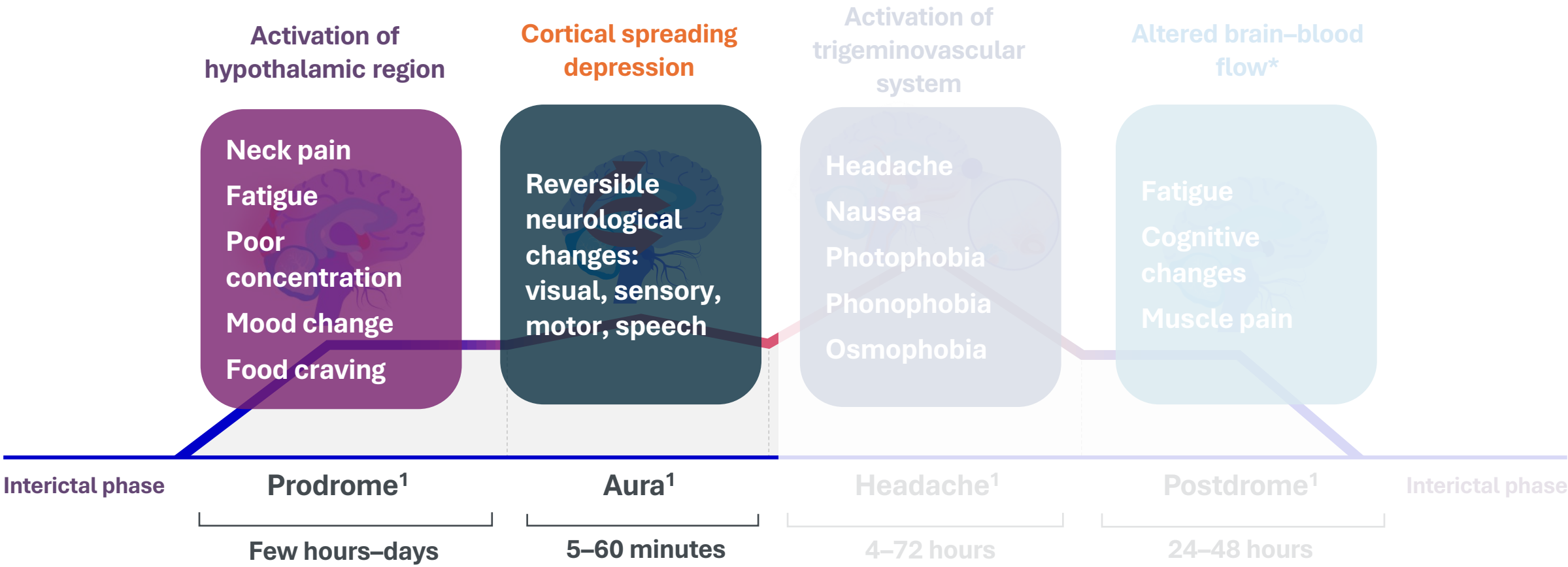

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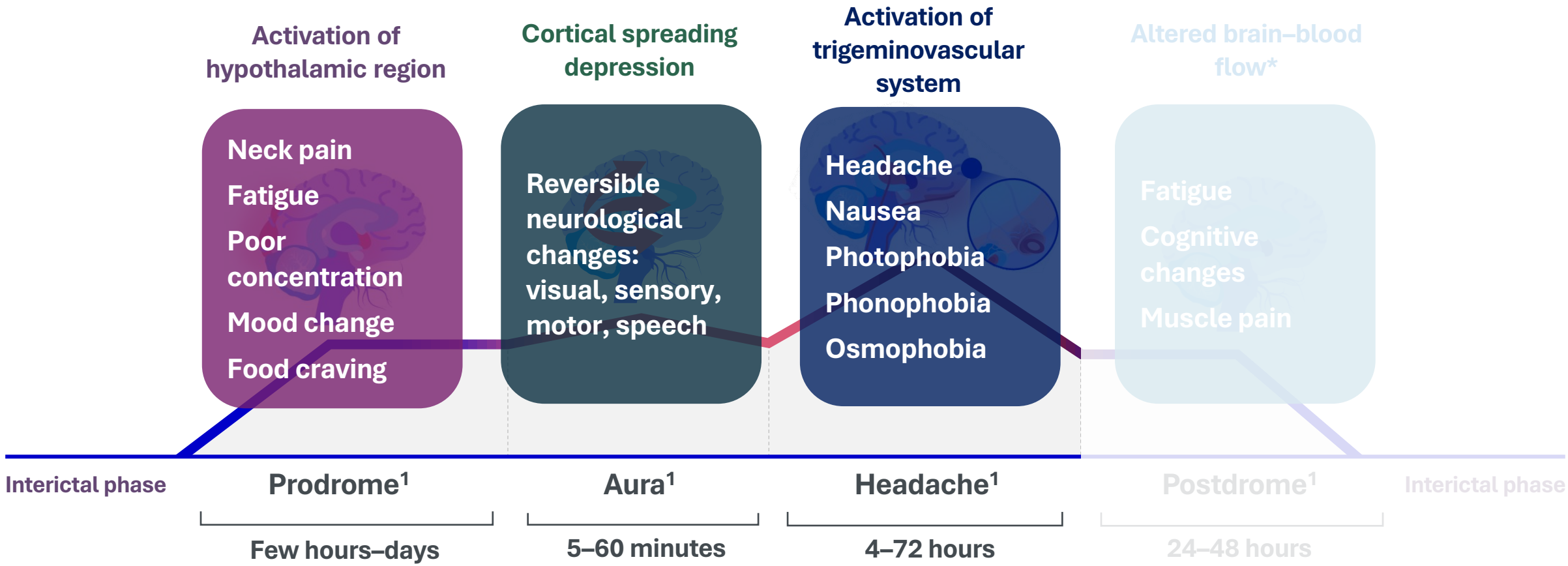

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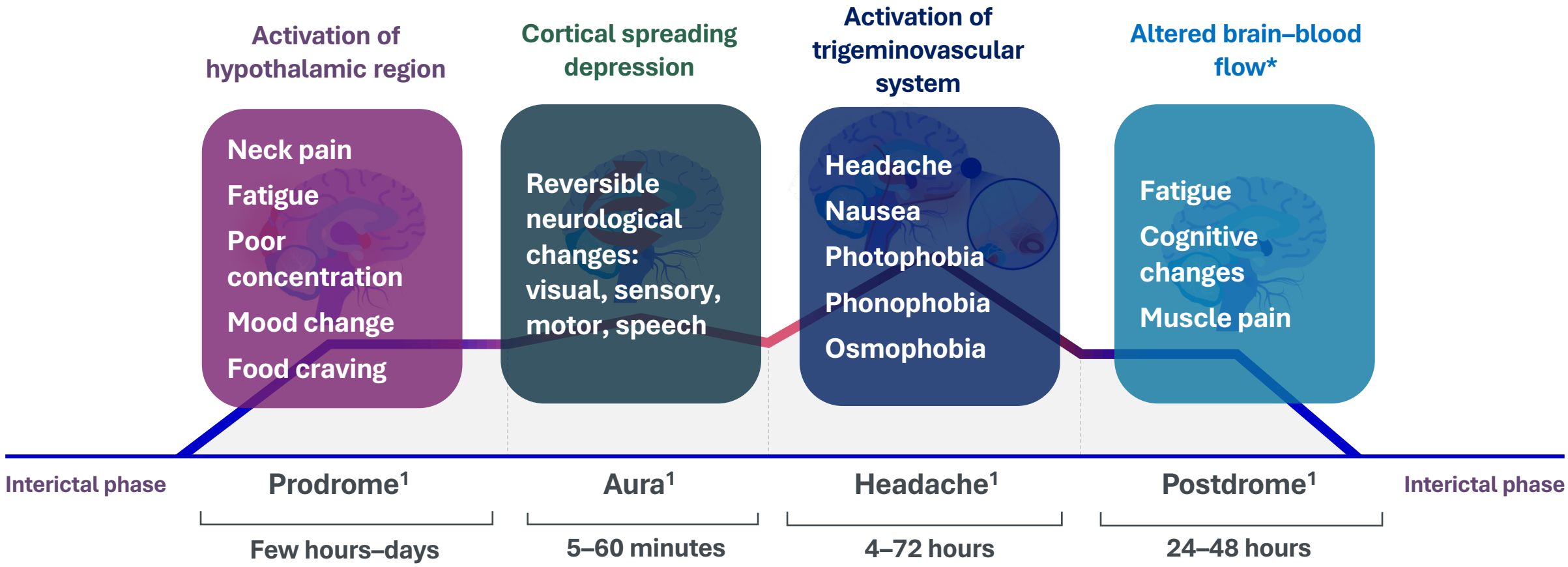

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Stages can occur sequentially or overlap, and some may not occur at all for some patients[1]

Only ~1 in 3 people with migraine experience aura with some or every attack[2]

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Diagnostic Thinking Error: Tension Type Headache

Patient with neck pain and pain at the back of the head who is currently stressed diagnosed as tension headache

- 70% of migraineurs get neck pain during a migraine attack
- 40% of migraine pain affects both sides
- Migraine pain can be anywhere on the head
- Stress is a common trigger for migraine
- (Anchoring on first diagnosis and premature closure)

Diagnostic Thinking Error: Sinus Headache

Patient with recurrent bilateral facial pain with a blocked nose diagnosed as recurrent sinus headache

- An observational study[1] showed (N = 2991) 88% of people with a self-diagnosis or medical diagnosis of sinus headache were classified with migraine based on ICHD criteria.
- Migraineurs get cranial autonomic symptoms, pain can be bilateral
- **ascertainment bias** ie our thinking is shaped by what we expect to see: the patient with recurrent “sinus headache”
- **diagnostic momentum**, once a diagnostic label has been assigned to an individual or by an individual it is difficult to remove that label

1. Foroughipot M et Al, Causes of Headaches in Patients with a Primary Diagnosis of Sinus Headache. Eur.Arch.Oto-Rhino-Larhngol.2011;268: 1593-1596

Patient Presenting with Headache

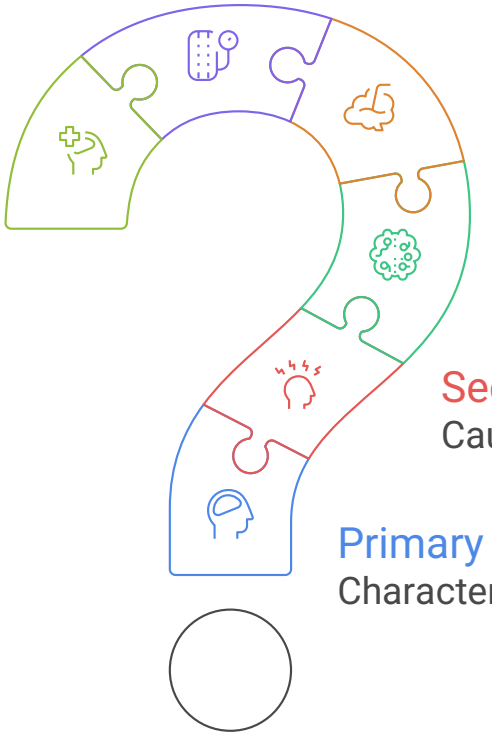
New Headache or Existing Headache

History
Purpose of Questions
Diagnosis
Management

Targeted Examination

Raised or Lowered ICP

Systemic Illness/GCA



Intracranial Haemorrhage

CNS Infection

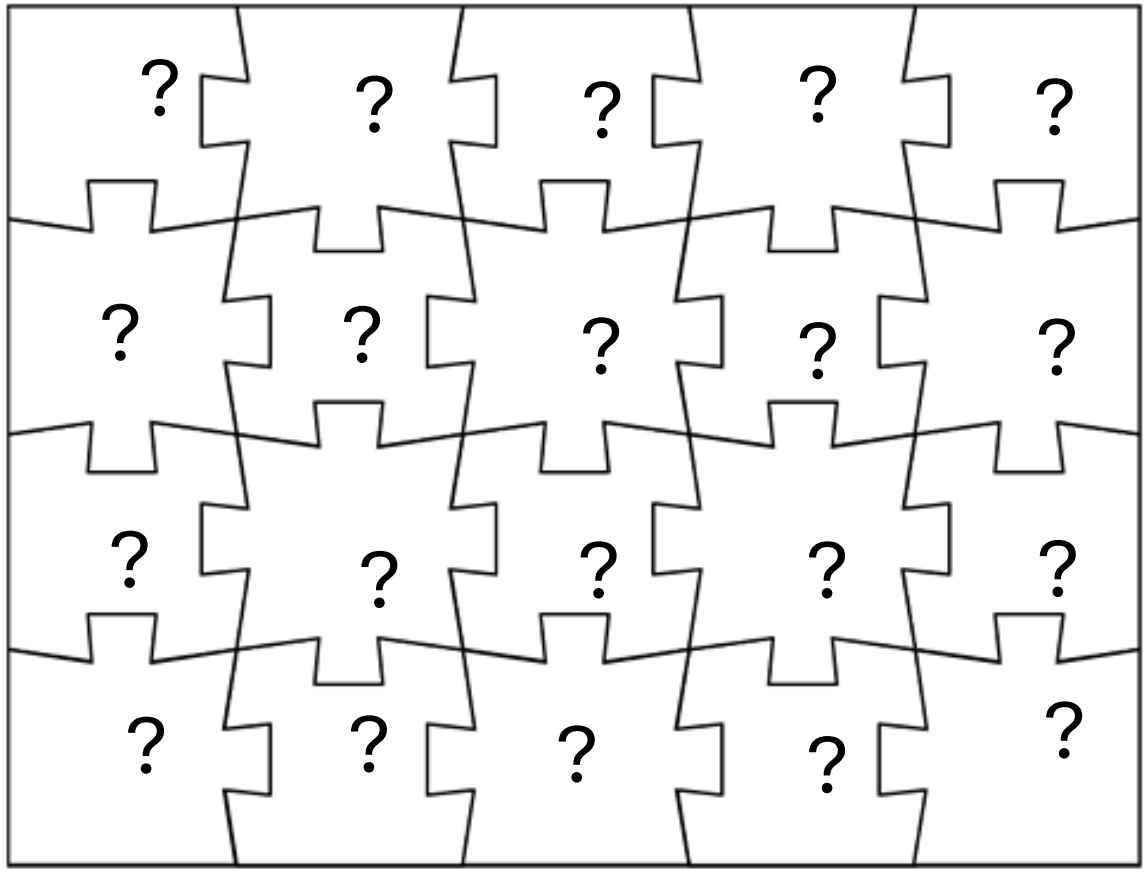
Secondary Headache
Caused by an underlying medical condition.

Primary Headache
Characterised by no underlying cause, often chronic.

GCA, Giant Cell Arteritis. ICP, Intracranial Pressure. CNS, Central Nervous System.

Headache diagnosis: piecing the jigsaw together

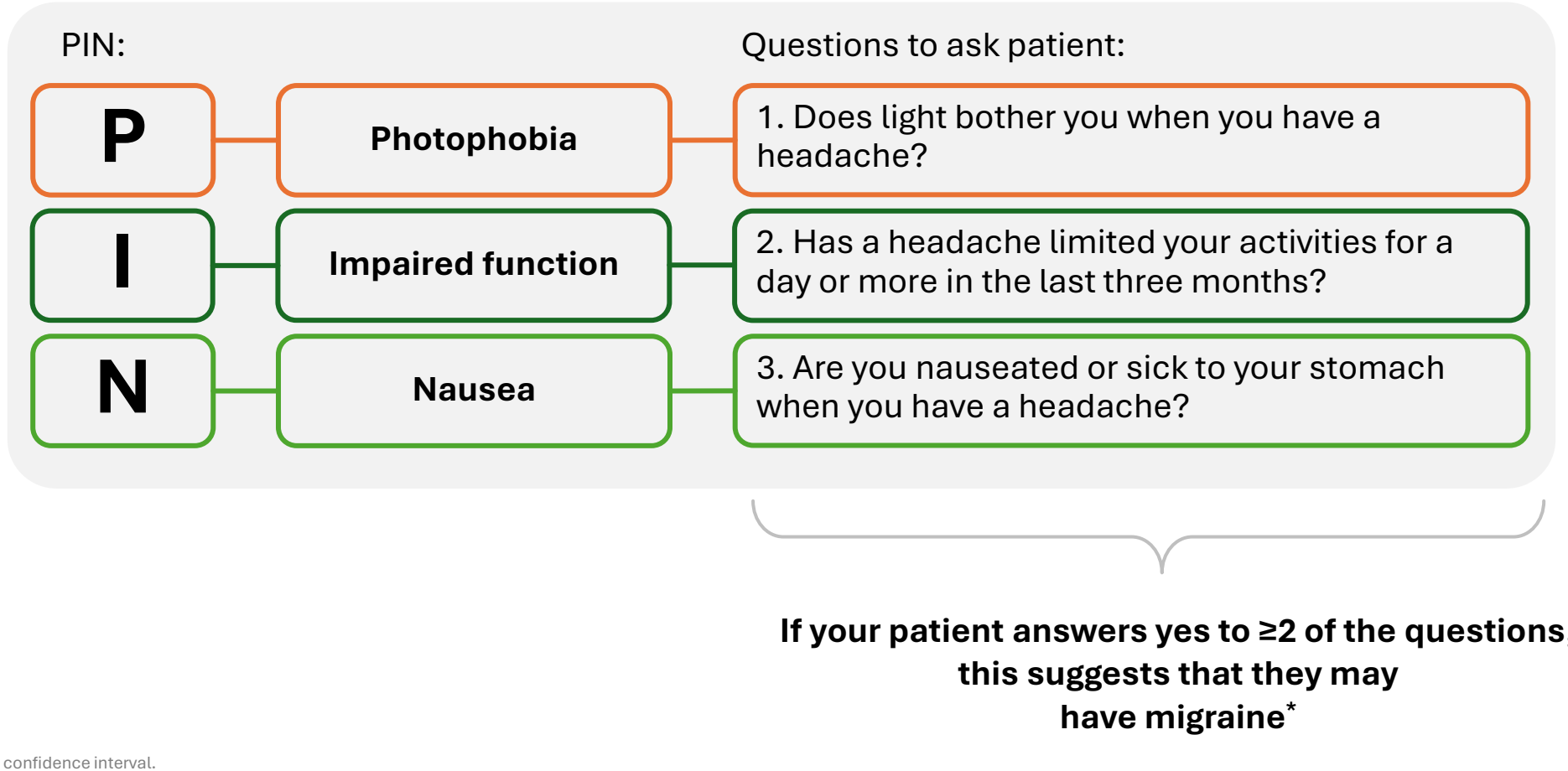
<50 years old why not migraine?



>50 years old why not a secondary headache?

Keeping it simple: diagnosing migraine

‘PIN’ the diagnosis (three-item Migraine ID Screener):[1]



Yes to **2 questions** has a diagnostic sensitivity of 0.81

Yes to **3 questions** has a diagnostic sensitivity of 0.93

If your patient answers yes to ≥2 of the questions, this suggests that they may have migraine*

CI, confidence interval.
*Sensitivity of 0.81 (95% CI, 0.77 to 0.85), a specificity of 0.75 (95% CI, 0.64 to 0.84), and positive predictive value of 0.93 (95% CI, 89.9 to 95.8).[1]
1. Lipton RB, *et al. Neurology* 2003;61:375–82.

Starting point

Is this a new headache or transformation or worsening of an existing headache?

Headache history

Determine if the patient is headache-prone or if it's a new occurrence.

? First ever
previous headache
menstrual headache
undeserved hangovers,
expand “normal” headache

Headache frequency

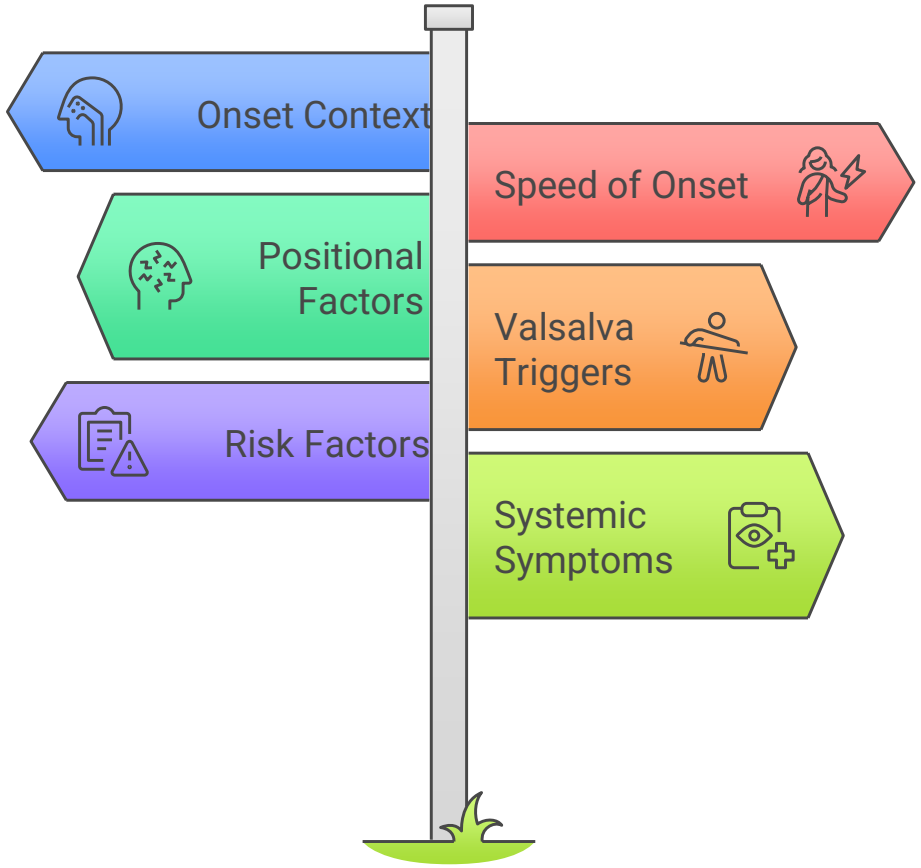
Crystal Clear Days

Assess the number of bad headache days per month.

Family history

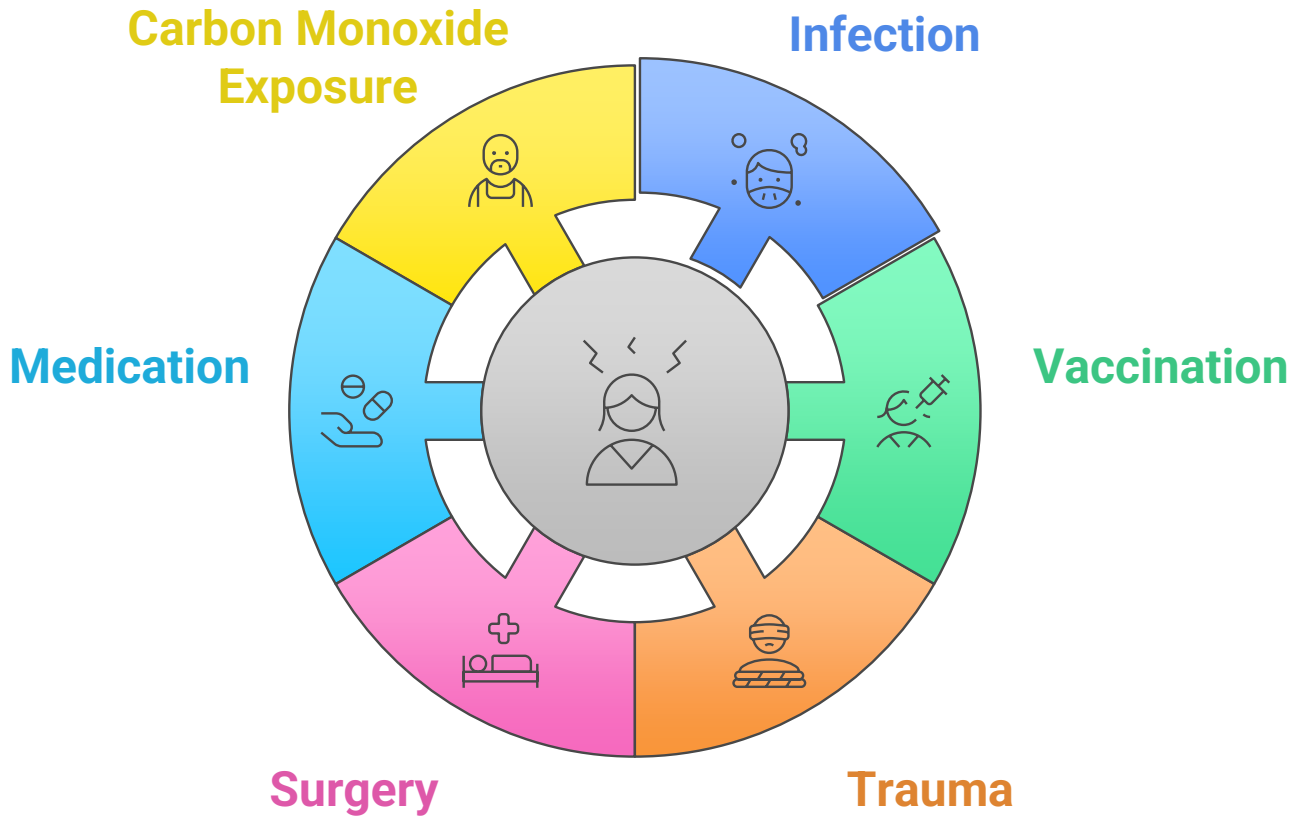
Inquire about family history of headaches.

Secondary Headache screening questions

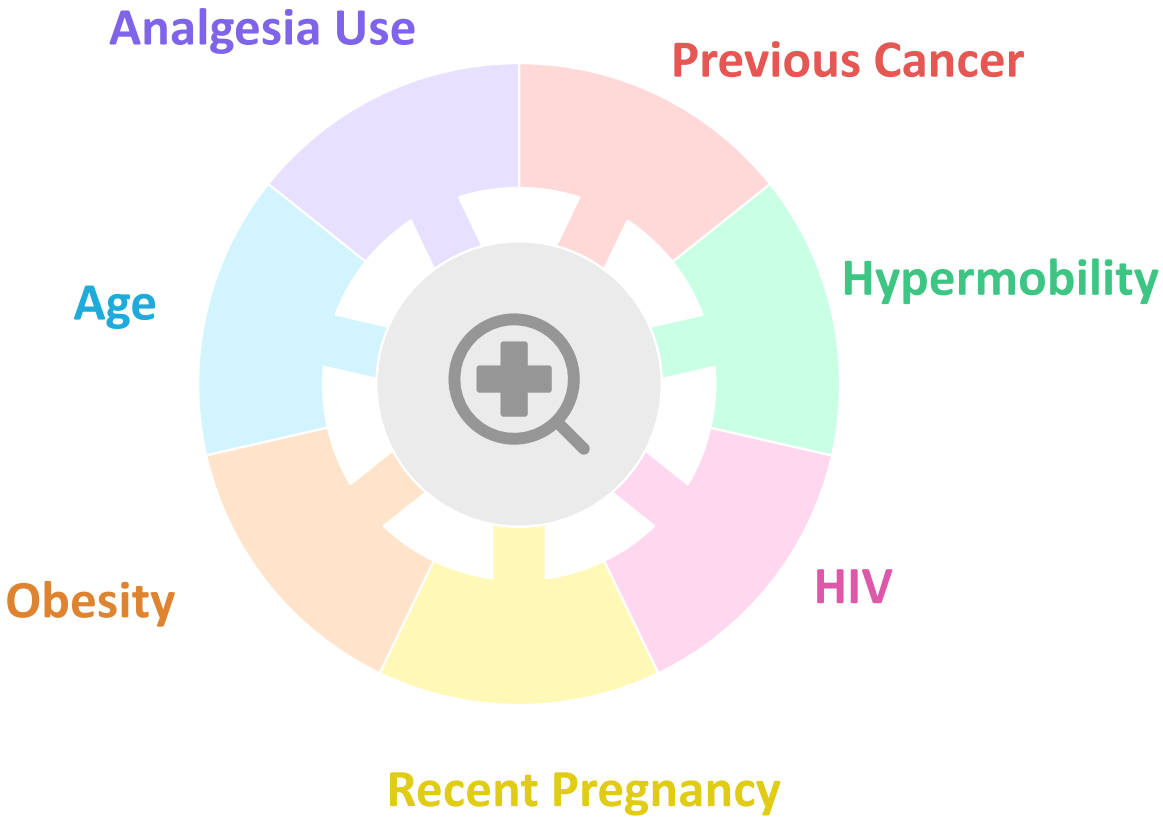


Speaker’s own infographic

New Headache : Onset Context



Risk Factors for Secondary Headaches



The most consistent indicators of serious secondary causes for headache are:

Thunderclap (sudden onset) headache (consider SAH and its differential)[1]

New focal neurologic deficit on examination (e.g., hemiparesis)[1]

Systemic features (considering GCA, infection such as meningitis or encephalitis, etc)[1]

New progressive headache in a patient >50 years of age[1]

Patients with any of the above indicators require urgent assessment[1]

GCA, giant cell arteritis; GP, general practitioner; NHS, National Health Service; SAH, subarachnoid haemorrhage.

1. NHS Scotland. National Headache Pathway. May 2024. Available at: https://www.nhscfsd.co.uk/our-work/modernising-patient-pathways/specialty-delivery-groups/neurology/national-headache-pathway/ [Last accessed: September 2025].

How likely is isolated Headache caused by a Brain tumour?

Positive predictive value of individual symptoms from case-controlled electronic primary care records for primary brain tumours between May 1988 and March 2006

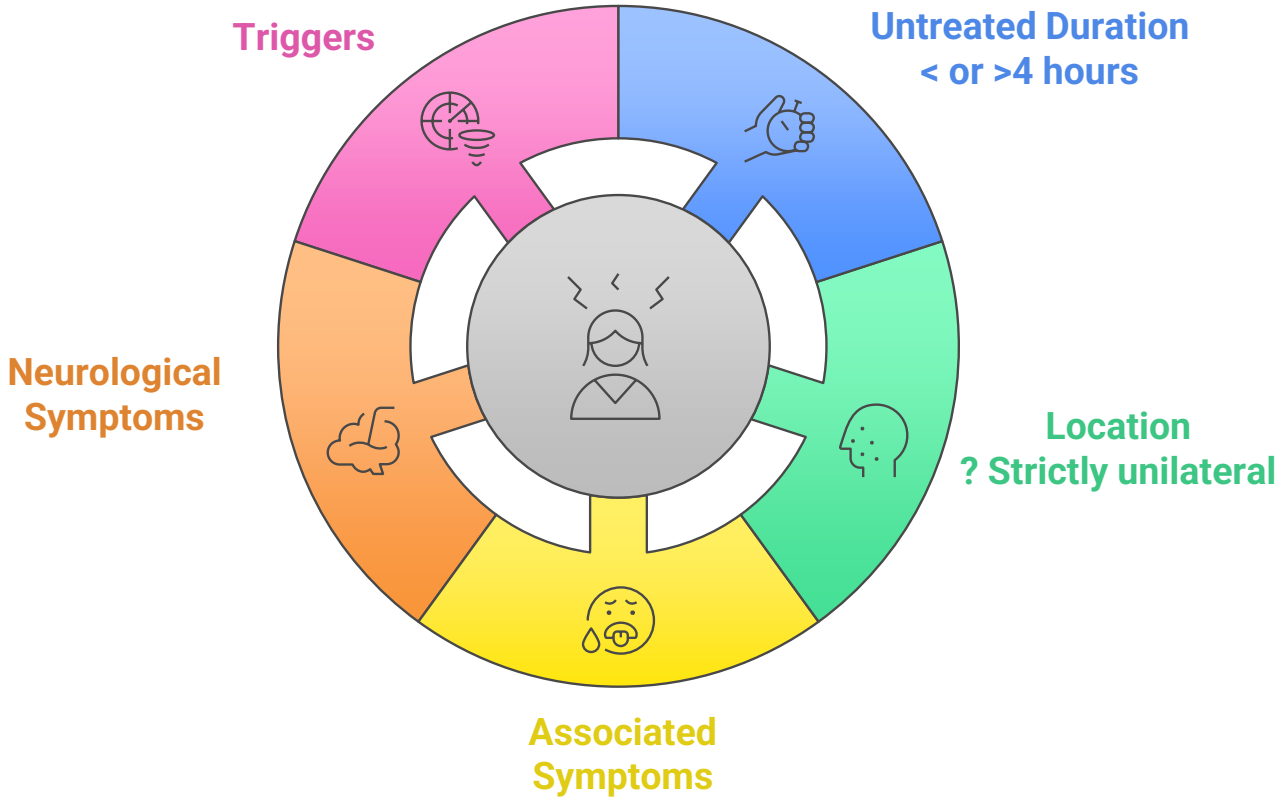
- Weakness as a symptom 3%
- New onset seizure 1.2%
- Confusion 0.2%
- Headache 0.09%
- Background risk 0.013%

Hamilton K., Kernick D. *Br J Gen Pract*. 2007; 57(542): 695-9.

Suggested questions to ask patient during consultation:

Q1) Ask PIN

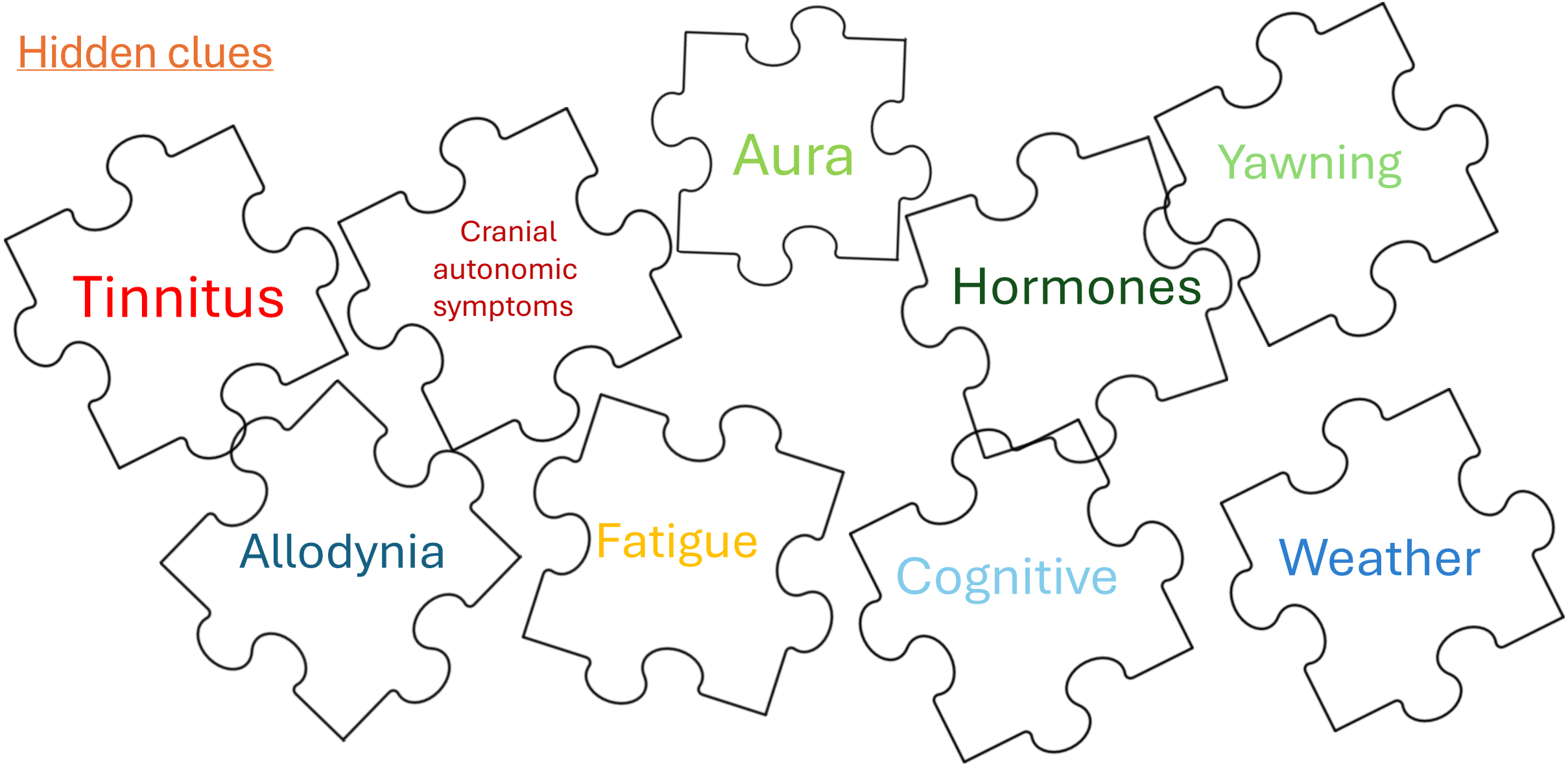
Q2) What would you want to do when you have a headache?



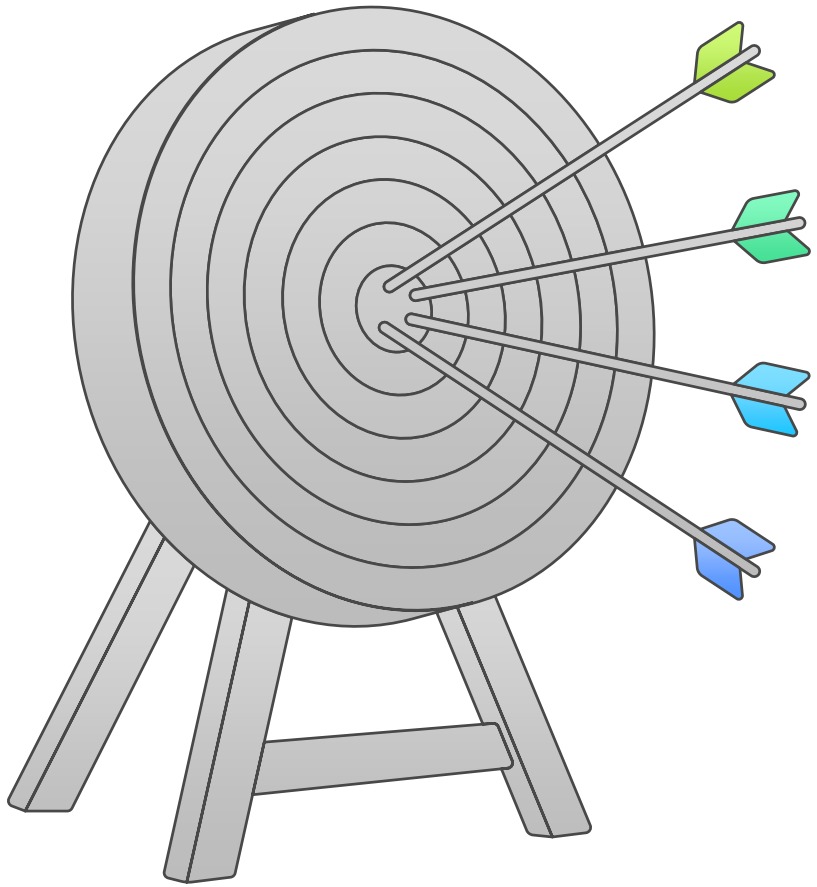
PIN

- Photophobia
- Impaired Function
- Nausea

Hidden clues



Headache diary: diagnostic impact



- **Accurate measure of headache days**
- **Pattern recognition**
- **Structured record of patient symptoms**
- **Enhances patient-doctor relationship**

Headache diary

WEEK 1 Please score the pain of your headache out of 3 and indicate if you have any other symptoms as listed.

Week 1 Start Date =	Sun	Mon	Tue	Wed	Thur	Fri	Sat
Headache 0= none, 1 = mild, 2 =moderate ,3 = severe	0	0	0	0	0	1	2
Feeling sick =S, vomiting = V						S	S
Sensitive to environment: Light = L, Noise = N, Smells =S							L
Visual symptoms Yes =Y, No =N						N	N
Duration of headache (hours)						24	24
Had to lie down = L, sit down =S						S/L	S/L
Time away from normal activities (hours)						3	5
Number of tablets of medicine taken:							
Prescribed						~~8~~ 6	6
Over the counter						6	
Menstruation (Yes/No)						N	N

WEEK 2

WEEK 2	Sun	Mon	Tue	Wed	Thur	Fri	Sat
Headache 0= none, 1 = mild, 2 =moderate ,3 = severe	3	2	1	0	0	0	0
Feeling sick =S, vomiting = V	V	S	S				
Sensitive to environment: Light = L, Noise = N, Smells =S	L/S	L					
Visual symptoms Yes =Y, No =N	Y	N	N				
Duration of headache (hours)	24	24	4				
Had to lie down = L, sit down =S	L	L/S					
Time away from normal activities (hours)	9	4	0				
Number of tablets of medicine taken:							
Prescribed	6	6	2				
Over the counter							
Menstruation (Yes/No)	N	N	N				

WEEK 3 Please score the pain of your headache out of 3 and indicate if you have any other symptoms as listed.

Week 2 Start date	Sun	Mon	Tue	Wed	Thur	Fri	Sat
Headache 0= none, 1 = mild, 2 =moderate ,3 = severe	0	2	2	0	0	0	0
Feeling sick =S, vomiting = V		S	S				
Sensitive to environment: Light = L, Noise = N, Smells =S		L	L				
Visual symptoms Yes =Y, No =N		N	N				
Duration of headache (hours)		24	12				
Had to lie down = L, sit down =S		L/S	L/S				
Time away from normal activities (hours)		4	4				
Number of tablets of medicine taken:							
Prescribed		6	6				
Over the counter							
Menstruation (Yes/No)		Y	Y				

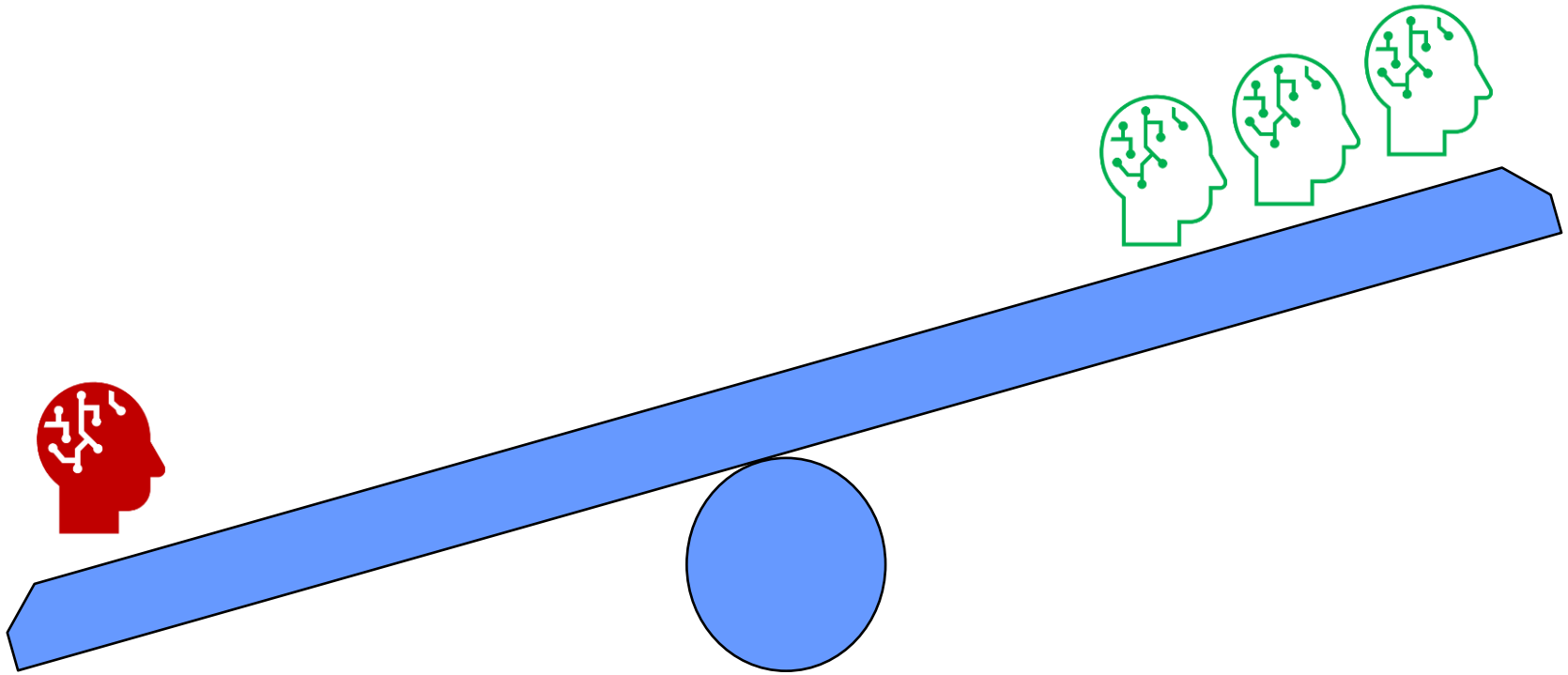
WEEK 4

WEEK 4	Sun	Mon	Tue	Wed	Thur	Fri	Sat
Headache 0= none, 1 = mild, 2 =moderate ,3 = severe	0	2	3	2	1	0	0
Feeling sick =S, vomiting = V		S	S	S	S		
Sensitive to environment: Light = L, Noise = N, Smells =S		L/S	L/S	L/S			
Visual symptoms Yes =Y, No =N		N	Y	N	N		
Duration of headache (hours)		24	24	24	6		
Had to lie down (Yes/No)		Y	Y	Y	N		
Time away from normal activities (hours)		4	8	4	0		
Number of tablets of medicine taken:							
Prescribed		6	6	6			
Over the counter					2		
Menstruation (Yes/No)		N	N	N	N		

Summary

- ✓ Exclude Secondary Headache

Treat for migraine



SIGN 155 Migraine

Scottish Headache Pathways

BASH

TURAS*

NHS Grampian

*TURAS requires sign in or registration