CANADIAN HEADACHE CONFERENCE
COAST TO COAST

A Headache History:

The Art of Helping a Patient to Tell Their Story

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Learning Objectives

By the end of this session, attendees will be better equipped to:

- **Explore the narrative approach in headache diagnosis**: Discuss the importance of taking a comprehensive patient history, including symptoms, triggers, patterns, and personal experiences to enhance diagnostic accuracy and patient-centered care.

- **Demonstrate effective techniques for eliciting a headache narrative**: Provide practical strategies and communication skills for healthcare providers to effectively gather and interpret the patient's headache history, emphasizing listening, empathy, and open-ended questioning.

- **Identify red flags and historical clues for secondary headaches**: Highlight key historical features and red flags in patient narratives that indicate secondary headache disorders to facilitate prompt referral for further investigation and specialized treatment when necessary.

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Not all headache consults are equal…

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Start with open ended questions

Let them tell their story

The basic pain history framework…

Site

Onset

Character

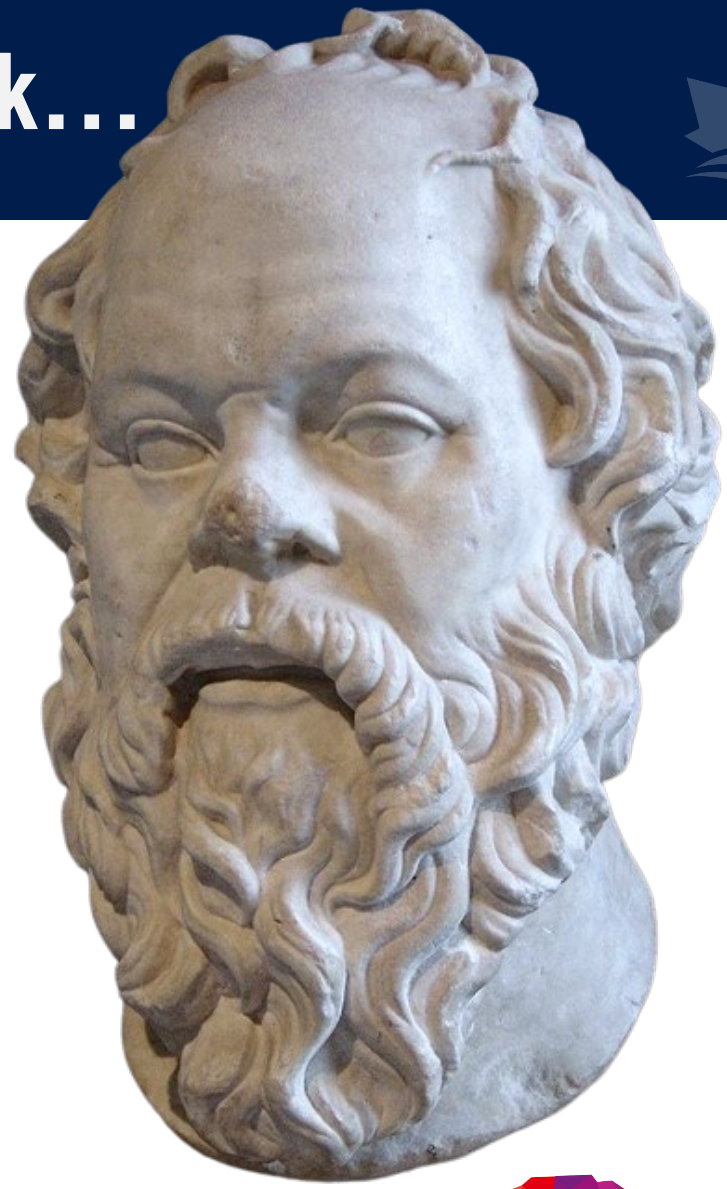
Radiation

Associated symptoms

Time course

Exacerbating / Alleviating factors

Severity



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Onset

- When do you first remember having headaches?
- Did you have them as a child or more in your teen years?
- Did they start with your period (menarche) or did they tend to happen around this time of the month for you?

- Do you remember anything that might have helped to get these headaches started around that time – anything like a head trauma, car accident, medical illness or new medicine?
- >50 years old new onset is a red flag

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Frequency/Duration/Timing

Thinking about the last three months on average, how many days out of 30 in a typical month?
If you weren't to take any medication, how long would your headache typically last?

- Prodrome
- Duration
- Postdrome

- Multiple attacks per day

- Diurnal Predilection
- Circannual Predilection
- Nocturnal exclusively
- Rapid onset / peak (<1s)

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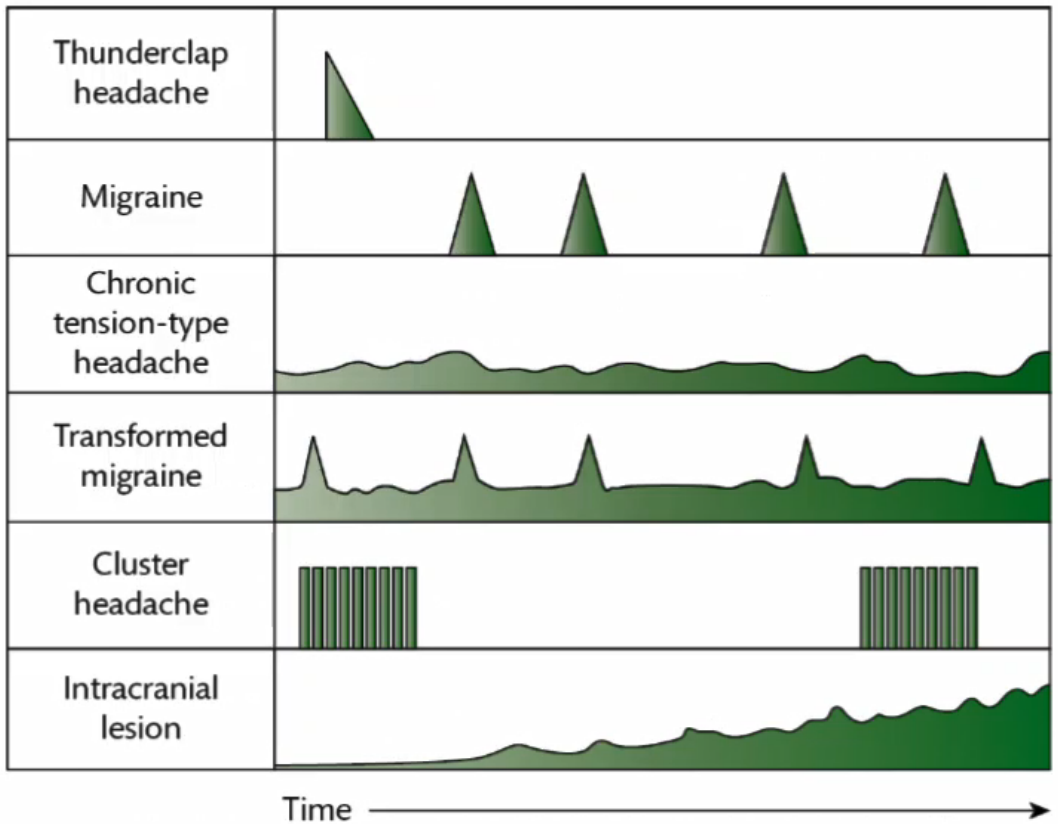
“I have headache every day.”

“My Headache is 24/7 without any relief”

Do you experience any headache free (crystal clear) time?



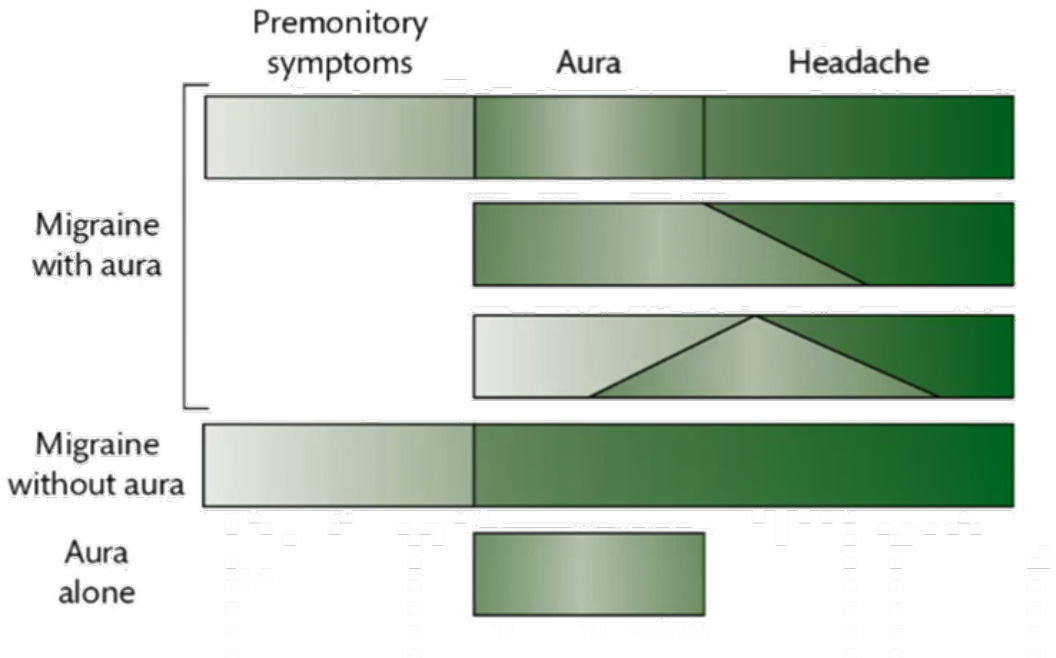
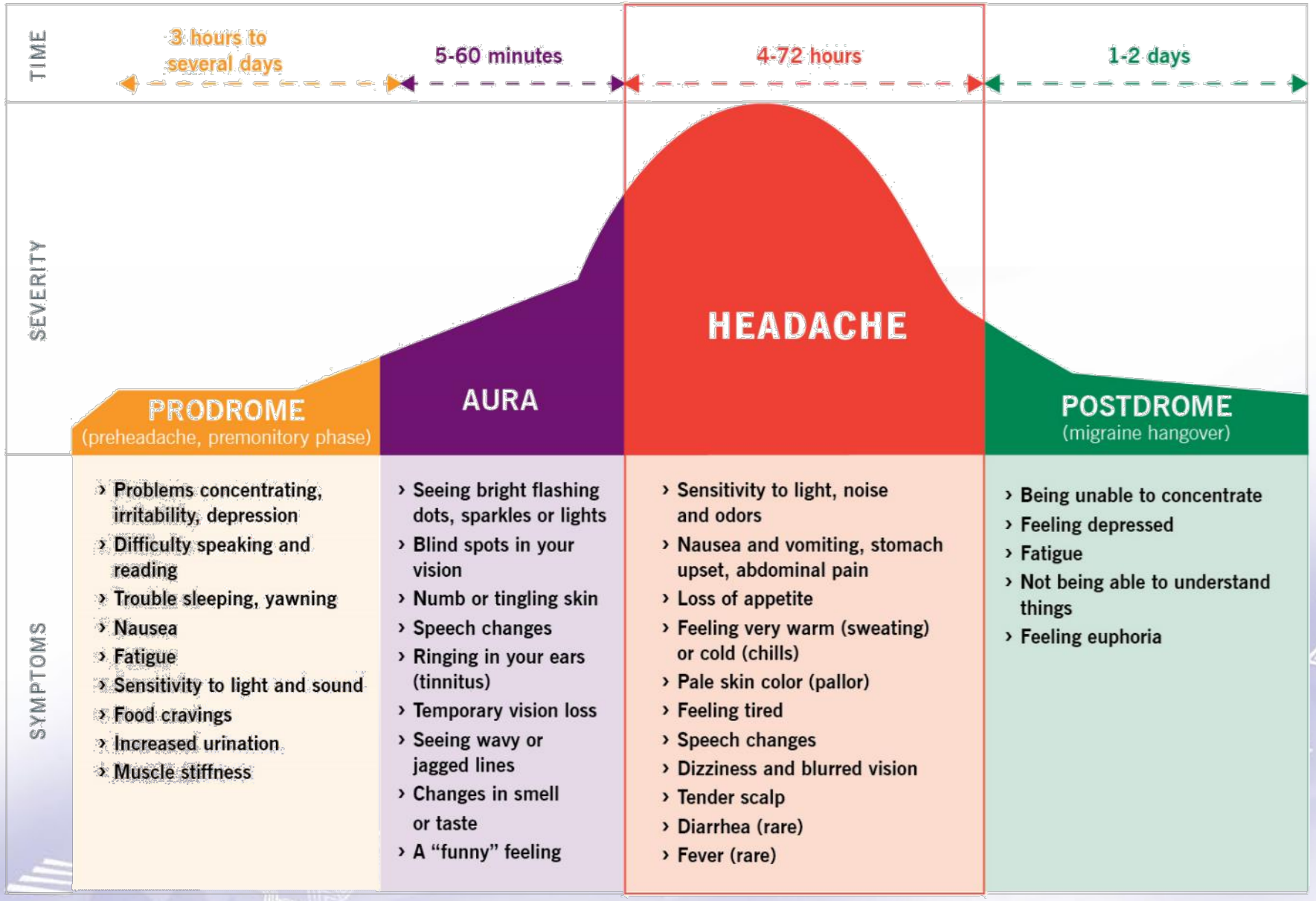


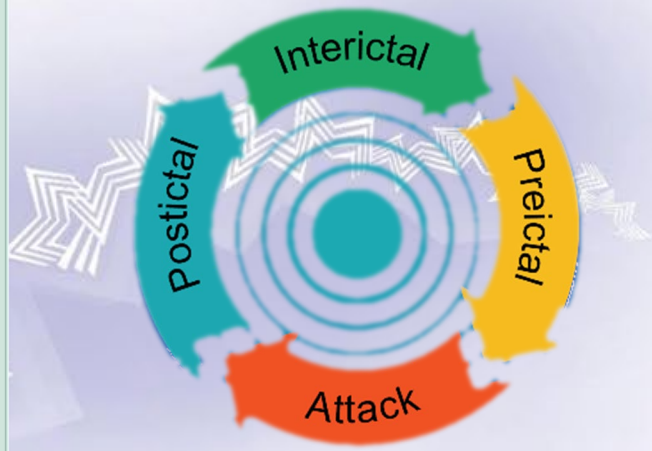
Image from Oxford Textbook of Headache Syndromes (Ofxford textbooks in Clinical Neurology) Ferrari et al, 2020.

The 4 Phases of a Migraine Headache



INTERICTAL (~30%):

- Photo/phonophobia
- Cognitive complaints
- Nausea
- Fatigue
- Allodynia
- Neck Pain
- Vertigo / disequilibrium



Character

- Tell me about your headache - what does it feel like?
- Is it sharp, dull, throbbing, constant, that kind of thing?
- Assess for brief electric lancinations, tactile triggers etc. that may suggest alternative diagnoses

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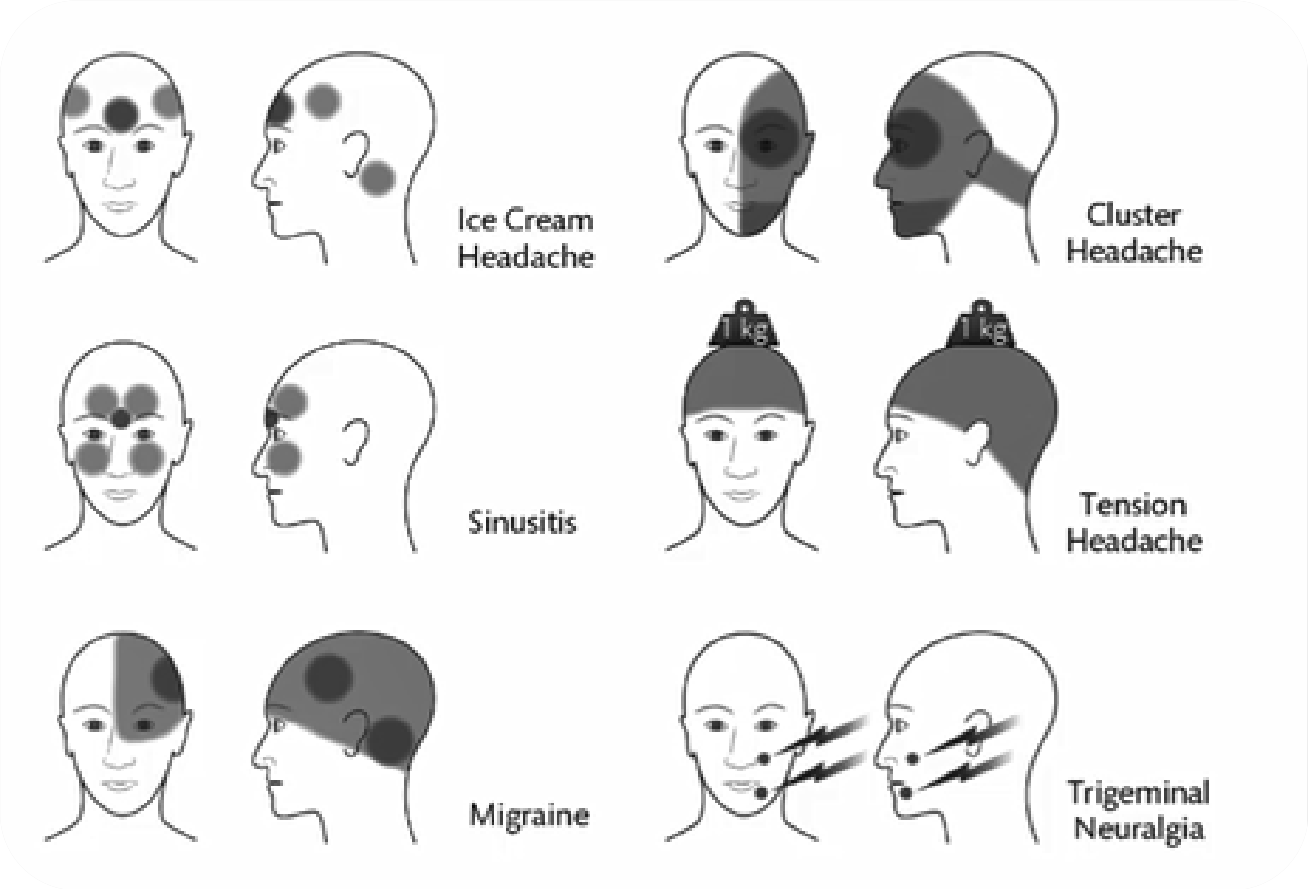
Many patients with migraine, don’t recognize it, and those diagnosed may often not realise how many of their attacks are actually migrainous.

When you say migraine, what do you mean, and what are your other headaches like?

Site/Location



- *Where on the head are you having pain; is it sharp, dull, throbbing, constant that kind of thing?*
- *Does it change sides or is it side locked?*

Image from Oxford Textbook of Headache Syndromes (Ofxford textbooks in Clinical Neurology) Ferrari et al, 2020.

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Radiation

- Ocular Pain (Don’t miss glaucoma)
- Facial Pain (Trigeminal Neuralgia (Occipital neuralgia and other cranial neuralgias))
- Sinus Pain
- Dental Pain
- TMJ Pain / Dysfunction
- Neck and Shoulder Pain

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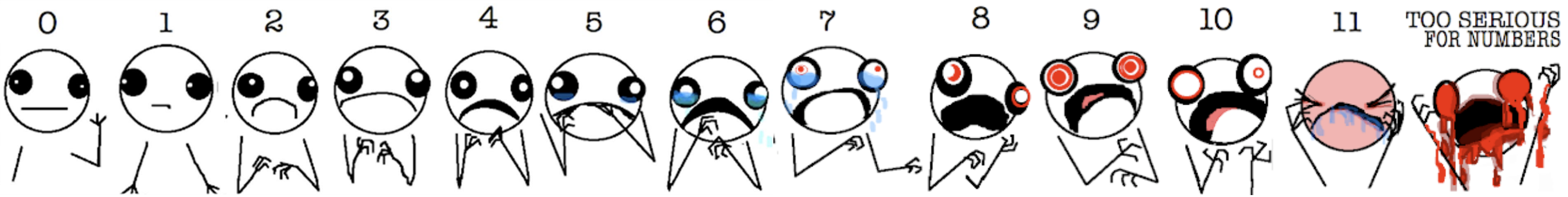
Severity



Visual Analogue Scale: 1-10+/10 (*they always say 11…*)

Mild - Moderate - Severe

- Mild – annoying, still affecting quality of life, but not impacting ability to function at work or chores
- Moderate - requiring a change of activity or pace.
- Severe - requiring rest and stopping activities, or significant inability to perform tasks .

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Associated Symptoms… *the classic vignettes*

Migraine	Throbbing / moderate to severe / Asymmetric / Frontotemporal / Worse with exertion – improved with rest Photophobia / Phonophoba / Osmophobia / Nausea / Vomiting / Cutaneous / Allodyia
Tension	Band-like / Squeezing or pressure / No migrainous or autonomic features
Cluster / TAC Family	Side-locked / Peri/retro-orbital / Sharp or Boring / Severe / Circannual and diurnal predilection / EtOH Ptosis / Periorbital edema / Lacrimation / Conjunctival injection / Rhinorrhea / Facial flushing / Sweating / Aural fullness / Restlessness / Foreign body sensation
IIH	Overweight or obese / Blurring of vision / transient visual loss / Horizontal diplopia (far) Pulsatile tinnitus / Prior Vit A, retinoids or tetracyclines. Papilledema on exam, Elevated OP
SIH	Postural aggravation of headache (classic is worse upright) / Worsening of headache over course of the day Diplopia / Tinnitus / Auditory distortion / History of ligamentous laxity or CTD.
Cervicogenic	Side-locked, associated neck pain, triggered by particular head / neck movement, posture, laying position Question mark like radiation, ?Red Ear Syndrome

1.2 Migraine with aura

A. At least two attacks fulfilling criteria B and C

B. One or more of the following fully reversible aura symptoms:
   - Visual
   - Sensory
   - Speech and/or language
   - Motor
   - Brainstem
   - Retinal

C. At least three of the following six characteristics:
   - At least one aura symptom spreads gradually over ≥5 minutes
   - Two or more aura symptoms occur in succession
   - Each individual aura symptom lasts 5-60 minutes
   - At least one aura symptom is unilateral
   - At least one aura symptom is positive
   - The aura is accompanied, or followed within 60 minutes, by headache

D. Not better accounted for by another ICHD-3 diagnosis.

Asking About Aura

Visual Symptoms Associated with Migraine:

- Photosensitivity
- Blurring
- Scintillation
- Scotoma
- Teichopsia (fortification spectrum)
- Photopsias (colourful glowing flashes or dots) reported in up to 25% of patients

…

- Visual Distortions – micro/macro-psia
- Increased entoptic phenomena (self lighting, floaters)
- Visual Snow

- Language (dysphasia)
- Sensory march (paresthesias / numbness)
- Aura symptoms in approx. 10% of patients
- Auras commonly last 10-60 minutes and resolve just prior to headache onset, but can be variable

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Get used to hearing about floaters of every variety

1.2.4 Retinal migraine

IHS CLASSIFICATION ICHD-3

Repeated attacks of monocular visual disturbance, including scintillations, scotomata or blindness, associated with migraine headache.

A. Attacks fulfilling criteria for 1.2 Migraine with aura and criterion B below

B. Aura characterized by both of the following:
   - Fully reversible, monocular, positive and/or negative visual phenomena (eg, scintillations, scotomata or blindness) Confirmed during an attack by either or both of the following:
     - Clinical visual field examination
     - Patient's drawing of a monocular field defect (made after clear instruction)
   - At least two of the following:
     - Spreading gradually over ≥5 minutes
     - Symptoms last 5-60 minutes
     - Accompanied, or followed within 60 minutes, by headache

C. Not better accounted for by another ICHD-3 diagnosis, **other causes of amaurosis fugax have been excluded.**

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Quiz patients about monocular vs. binocular visual symptoms and encourage them to assess with each eye closed in sequence.

Rule out other ocular conditions and consider vascular imaging of the neck vessels

1.2.2 Migraine with brainstem aura

Migraine with aura symptoms clearly originating from the brainstem,but no motor weakness (hemiplegic migraine).

A. Attacks fulfilling criteria for 1.2 Migraine with aura and criterion B below
B. Aura with both of the following:
   1. at least two of the following fully reversible brainstem sxs:
      - Dysarthria
      - Vertigo
      - Tinnitus
      - Hypacusis
      - Diplopia
      - Ataxia not attributable to sensory deficit
      - Decreased level of consciousness (GCS $\leq$13)
   2. No motor or retinal symptoms.

The main difference between an aura and TIA is the gradual evolution (e.g. sensory march, shifting scotoma) or characteristic features like teichopsia

Most patients don’t read the textbook.

Associated Symptoms… *the reality*

Migraine	**Throbbing** / moderate to severe / Asymmetric / Frontotemporal / Worse with exertion – improved with rest Photophobia / Phonophoba / Osmophobia / Nausea / Vomiting / Cutaneous / Allodyia Neck Pain Vertigo / Dysequilibrium / Brain Fog / Visual phenomena / Autonomic features
Tension	Band-like / Squeezing or pressure / No migrainous or autonomic features
Cluster / TAC Family	Side-locked / Peri/retro-orbital / Sharp or Boring / Severe / Circannual and diurnal predilection / EtOH Ptosis / Periorbital edema / Lacrimation / Conjunctival injection / Rhinorrhea / Facial flushing / Sweating / Aural fullness / Restlessness / Foreign body sensation / Can occur concurrently with migraine
IIH	Overweight or obese / Blurring of vision / transient visual loss / Horizontal diplopia (far) Pulsatile tinnitus / Prior Vit A, retinoids or tetracyclines. Papilledema on exam, Elevated OP
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Cervicogenic	Side-locked, associated neck pain, triggered by particular head / neck movement, posture, laying position Question mark like radiation, ?Red Ear Syndrome

And some patients have read everything on the internet.

Illustrator
Michael Natter, MD

Neurologic ROS:

- ✓ Seizure activity, altered awareness
- ✓ Syncope, loss of consciousness
- ✓ Expressive or receptive language difficulty
- ✓ Subjective memory issues
- ✓ Cognitive concerns (BRAIN FOG)
- ✓ Nausea and vomiting
- ✓ Headache
- ✓ Scalp allodynia
- ✓ Neck Pain
- ✓ Back Pain
- ✓ Blurred vision
- ✓ Transient loss of vision
- ✓ Visual disturbances
- ✓ Diplopia
- ✓ Dysarthria
- ✓ Dysphagia
- ✓ Tinnitus
- ✓ Vertigo, disequilibrium, presyncope
- ✓ Clumsiness / ataxia
- ✓ Weakness in an arm or leg
- ✓ Difficulty ambulating
- ✓ Falls
- ✓ Numbness or tingling
- ✓ Saddle anesthesia
- ✓ Change in bowel or bladder habits

Exacerbating/Alleviating Factors

- Stress
- Stress letdown “weekend headaches”
- Menstrual Cycle (premenstrual 2-3days or mid-cycle)
- Glare, flickering light, noise, strong perfumes
- Vasodilating drugs
- Alcohol
- Skipping meals / dehydration
- Caffeine overuse + withdrawal
- Exercise
- Sexual activity
- Cough
- Sustained neck / head posture or precipitating movements

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A Caution on Triggers…

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- Place less emphasis on weather and food triggers
- Focus on sleep hygiene, stress reduction, proper diet and hydration
- Consider **situational prescribing** prior to events known to cause exacerbations for the individual

Lifestyle / Social History, etc.:

SOCIAL HISTORY:

- Tobacco
- Alcohol
- Marijuana
- Other drugs
- Relationships
- Work

- PREVIOUS INTERVENTIONS:
- PREVIOUS ABORTIVE TREATMENTS:
- PREVIOUS PREVENTIVE TREATMENTS:

FAMILY HISTORY

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How often do you enjoy an alcoholic beverage?

Lifestyle / Social History, etc.:

- Caffeine: frequency / amounts / withdrawal headaches
- Diet: Regular breakfast? Adequate morning protein intake (12-15g within 1h)
- Hydration: (ideally 2-3L of water daily)
- Exercise: Part of their typical routine?

- Mood: screen anxiety, depression, or stress.

  … trauma, Adverse Childhood events?

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ACE: Should we explore it?

Adverse childhood experiences (ACEs) can include emotional, physical and sexual abuse as well as emotional and physical neglect.

ACEs are associated with chronic pain, including headache, in adulthood. There is longitudinal evidence to support a prospective relationship with migraine in adulthood.

RED FLAGS

- **S**ystemic sxs / signs (fever, wt loss, rash/arthralgia, HIV, CA)
- **N**eurologic sxs/signs
- **O**nset: Crescendo, Thunderclap (p
- **O**lder age of onset (>50yo) (jaw cla O)
- **P**attern Δ :
  - Phenotype type Δ
  - Progressive
  - Provoked (manipulation)
  - Postural aggravation

In primary care, and if patients are presenting with headache, 90% chance it is migraine

Red Flags: SNNOOP10

Sign/symptom	Related secondary headaches
Systemic symptoms, including fever	Headaches attributed to infection or nonvascular intracranial disorders, carcinoid or pheochromocytoma
Neoplasm in history	Neoplasms of the brain
Neurologic deficit or dysfunction	Headaches attributed to intracranial disorders, brain abscess, or other infections
Sudden or abrupt onset of headache	Subarachnoid hemorrhage and other headaches attributed to cranial or cervical vascular disorders
	Giant cell arteritis, other headaches attributed to cranial or cervical vascular disorders, neoplasms, or other nonvascular intracranial
Painful eye with autonomic features	Pathology in posterior fossa, pituitary region, or cavernous sinus; Tolosa-Hunt syndrome; ophthalmic causes
Posttraumatic onset of headache	Acute and chromic posttraumatic headache, subdural hematoma and other headaches attributed to vascular disorders
Immune system pathology (e.g., HIV)	Opportunistic infections
Painkiller overuse or new drug at onset of headache	Medication overuse headache; drug incompatibility

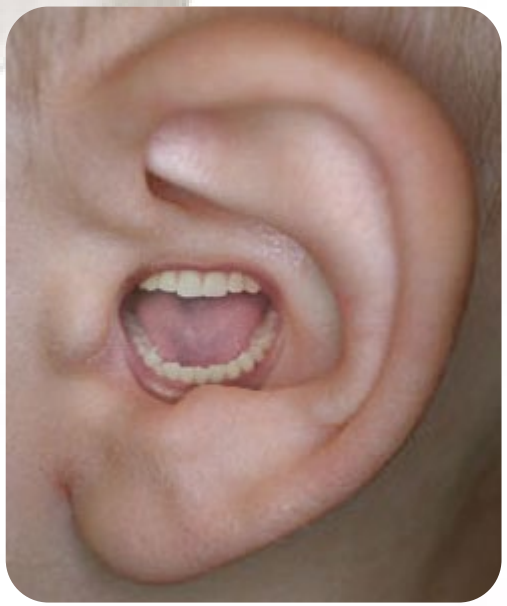
Any NEW or UNUSUAL headache in a patient known for migraine is secondary until proven otherwise

Do TP, et al. Neurology. 2019;92(3):134-44.

Listen with your ears, not your mouth

Epictetus' Proverb: *We have two ears and one mouth so that we can listen twice as much as we speak.*

The patient will tell you their diagnosis and guide further questions / treatment approaches



Physicians Interrupting Patients

Kari A. Phillips, MD[1], Naykky Singh Ospina, MD, MSC[2], and Victor M. Montori, MD, MSC[3]

[1]Department of Pediatric and Adolescent Medicine, Mayo Clinic, Rochester, MN, USA; [2]Division of Endocrinology, Department of Medicine, University of Florida, Gainesville, FL, USA; [3]Knowledge and Evaluation Research Unit, Division of Endocrinology, Diabetes, Metabolism and Nutrition, Department of Medicine, Mayo Clinic, Rochester, MN, USA.

Phillips KA, et al. J Gen Intern Med. 2019 Oct;34(10):1965.

- Physicians interrupted patients after a median of **11 seconds**
- Patients who were not interrupted spoke for a median of **6 seconds.**
- Many patients who spoke only briefly had no concerns had minimal opportunity for interruption.
- Patients who had concerns or more prolonged story behind their chief complaint, were interrupted only a few seconds into their story.

- Small sample size (only a subgroup of patients was asked about their agenda)
- Some interruptions can be helpful in guiding the clinical encounter in a productive direction
- Interruption seconds into the initial elicitation of the patient's concerns is not the appropriate
- Allow the patient to relay their story and experience your engaged, empathetic listening rather than a question-answer driven conversation.

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Avoid Willful Blindness

Hidden curriculum: “Don’t ask questions to which you don’t want the answers”

- Certain difficult symptoms minimised or ignored
- Part of migraine, but not reflected in classical criteria
- Patients feel frustrated or unheard, concerned symptoms may be caused by something else more ominous
- Chance to provide reassurance instead

This attitude is not limited to Medical Culture:

- Astronauts and space motion sickness
- 1960s: None have it
- Today: 90% have it

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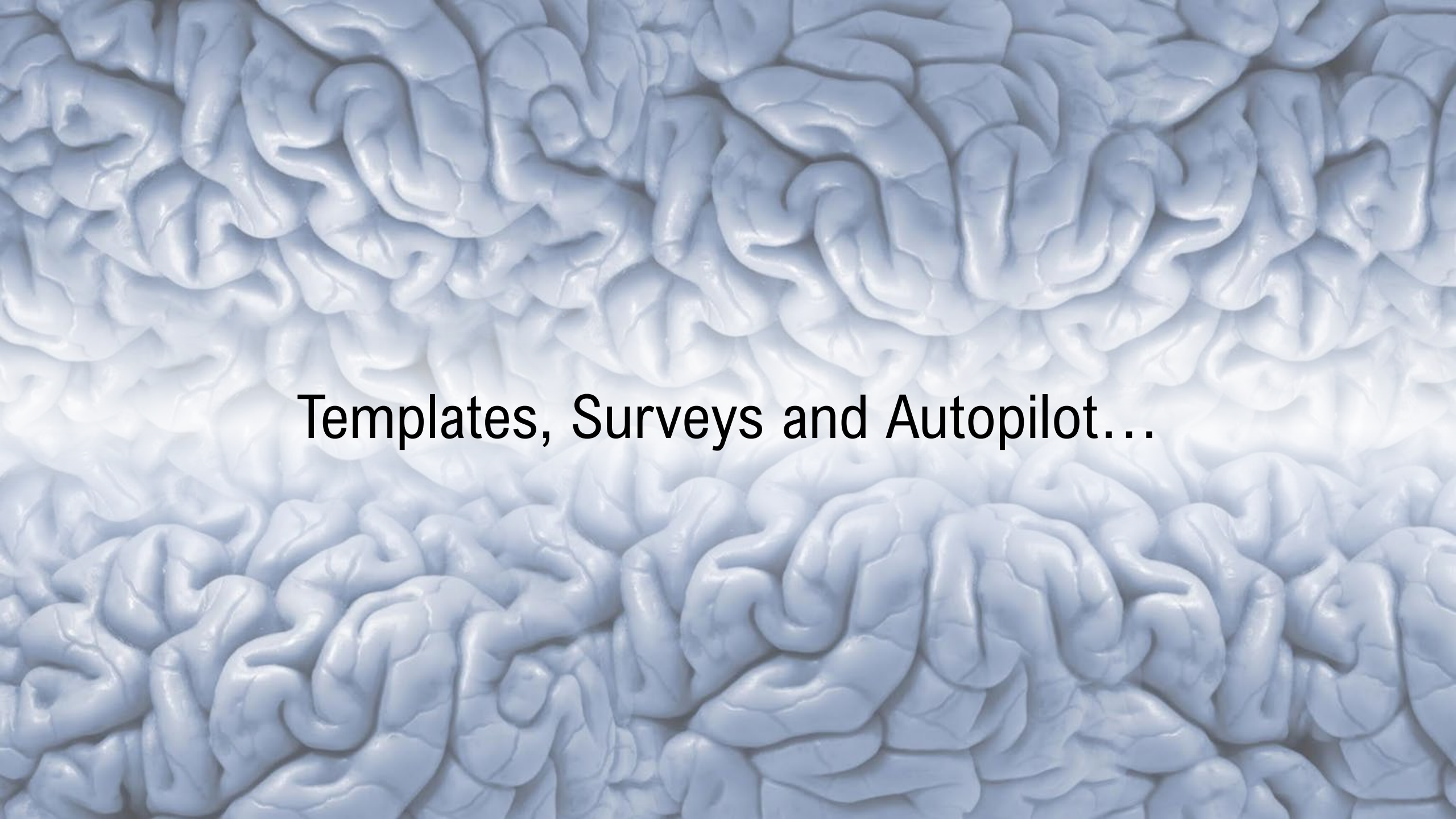
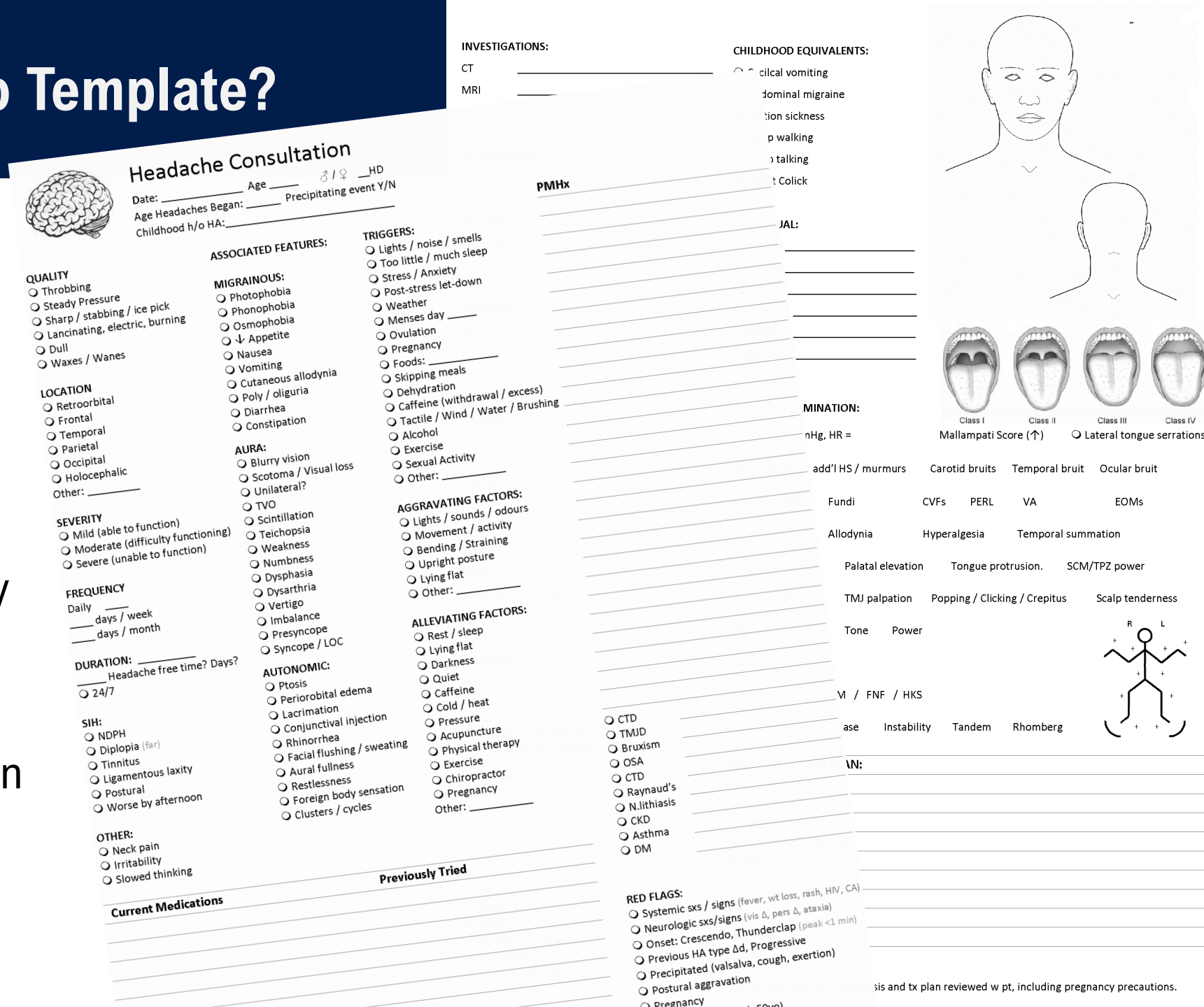

Templates, Surveys and Autopilot…

To Template or Not to Template?

Clinical Encounter Checklists have pros and cons…

- Great for beginners
- Methodical Approach
- Potentially time saving…
- Inefficient if done incorrectly
- Red Herrings
- Suggestibility of patients
- May lead to overinvestigation



Headache Consultation

Date: _____ Age ____ ♂/♀ ___HD
Age Headaches Began: _____ Precipitating event Y/N
Childhood h/o HA: _____

QUALITY
Throbbing
Steady Pressure
Sharp / stabbing / ice pick
Lancinating, electric, burning
Dull
Waxes / Wanes

LOCATION
Retroorbital
Frontal
Temporal
Parietal
Occipital
Holocephalic
Other: _____

SEVERITY
Mild (able to function)
Moderate (difficulty functioning)
Severe (unable to function)

FREQUENCY
Daily ___
___ days / week
___ days / month

DURATION: _____
___ Headache free time? Days?
24/7

SIH:
NDPH
Diplopia (far)
Tinnitus
Ligamentous laxity
Postural
Worse by afternoon

OTHER:
Neck pain
Irritability
Slowed thinking

ASSOCIATED FEATURES:

MIGRAINOUS:
Photophobia
Phonophobia
Osmophobia
↓ Appetite
Nausea
Vomiting
Cutaneous allodynia
Poly / oliguria
Diarrhea
Constipation

AURA:
Blurry vision
Scotoma / Visual loss
Unilateral?
TVO
Scintillation
Teichopsia
Weakness
Numbness
Dysphasia
Dysarthria
Vertigo
Imbalance
Presyncope
Syncope / LOC

AUTONOMIC:
Ptosis
Periorbital edema
Lacrimation
Conjunctival injection
Rhinorrhea
Facial flushing / sweating
Aural fullness
Restlessness
Foreign body sensation
Clusters / cycles

TRIGGERS:
Lights / noise / smells
Too little / much sleep
Stress / Anxiety
Post-stress let-down
Weather
Menses day ___
Ovulation
Pregnancy
Foods: _____
Skipping meals
Dehydration
Caffeine (withdrawal / excess)
Tactile / Wind / Water / Brushing
Alcohol
Exercise
Sexual Activity
Other: _____

AGGRAVATING FACTORS:
Lights / sounds / odours
Movement / activity
Bending / Straining
Upright posture
Lying flat
Other: _____

ALLEVIATING FACTORS:
Rest / sleep
Lying flat
Darkness
Quiet
Caffeine
Cold / heat
Pressure
Acupuncture
Physical therapy
Exercise
Chiropractor
Pregnancy
Other: _____

INVESTIGATIONS:
CT _____
MRI _____

CHILDHOOD EQUIVALENTS:
cilcal vomiting
dominal migraine
tion sickness
p walking
talking
Colick

PMHx

JAL:

MINATION:

nHg, HR =

add'l HS / murmurs Carotid bruits Temporal bruit Ocular bruit

Fundi CVFs PERL VA EOMs

Allodynia Hyperalgesia Temporal summation

Palatal elevation Tongue protrusion. SCM/TPZ power

TMJ palpation Popping / Clicking / Crepitus Scalp tenderness

Tone Power

VI / FNF / HKS

ase Instability Tandem Rhomberg

AN:

Class I Class II Class III Class IV
Mallampati Score (↑) Lateral tongue serrations

R L

CTD
TMJD
Bruxism
OSA
CTD
Raynaud's
N.lithiasis
CKD
Asthma
DM

Current Medications

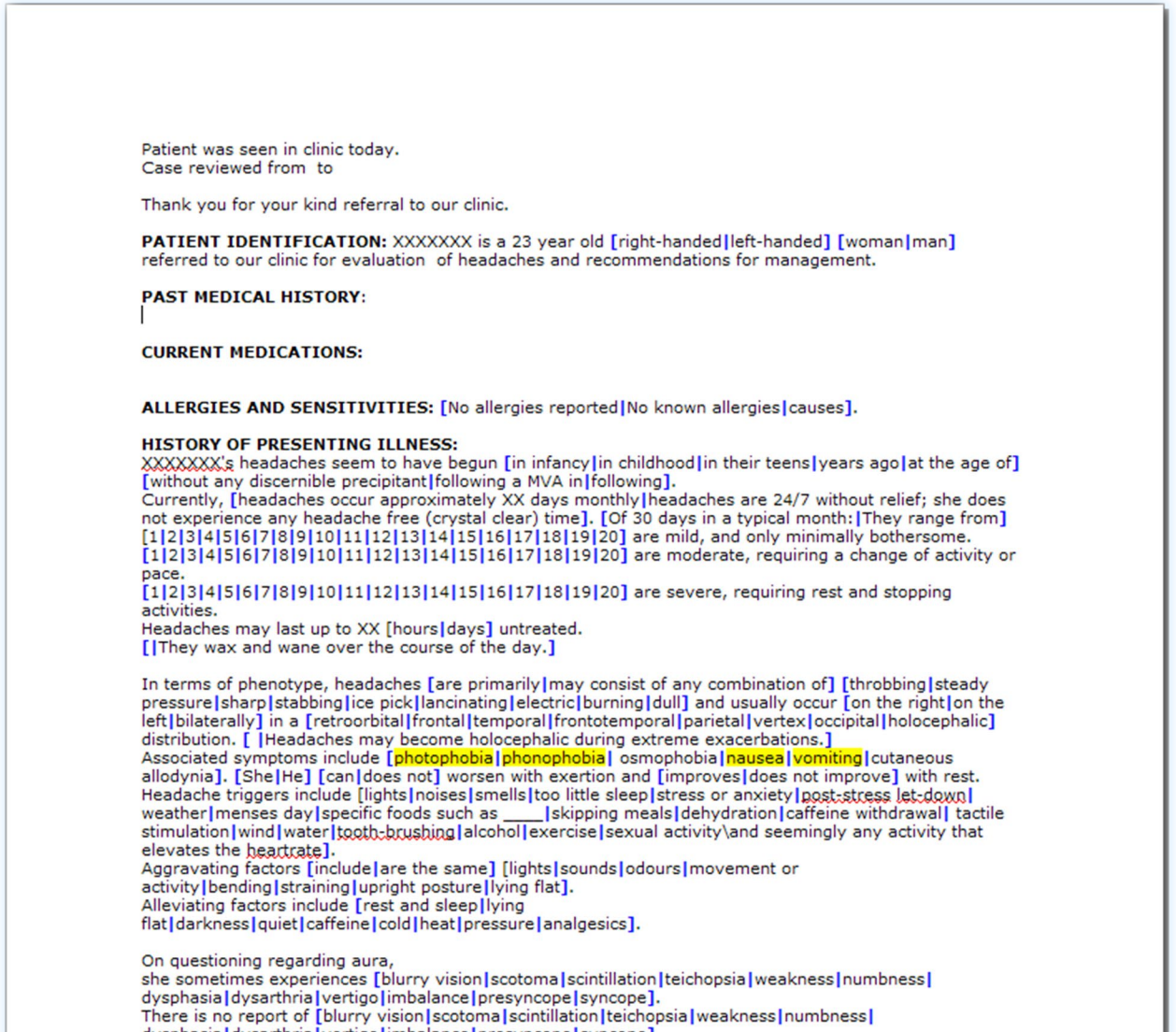
Previously Tried

RED FLAGS:
Systemic sxs / signs (fever, wt loss, rash, HIV, CA)
Neurologic sxs/signs (vis Δ, pers Δ, ataxia)
Onset: Crescendo, Thunderclap (peak <1 min)
Previous HA type Δd, Progressive
Precipitated (valsalva, cough, exertion)
Postural aggravation
Pregnancy

sis and tx plan reviewed w pt, including pregnancy precautions.

To Template or Not to Template?

EMR Templates and Macros can help to greatly reduce your note taking time and allow for more face to face time with patients, and completion of medical records in the course of the encounter.



Patient was seen in clinic today.
Case reviewed from to

Thank you for your kind referral to our clinic.

PATIENT IDENTIFICATION: XXXXXXX is a 23 year old [right-handed|left-handed] [woman|man] referred to our clinic for evaluation of headaches and recommendations for management.

PAST MEDICAL HISTORY:

CURRENT MEDICATIONS:

ALLERGIES AND SENSITIVITIES: [No allergies reported|No known allergies|causes].

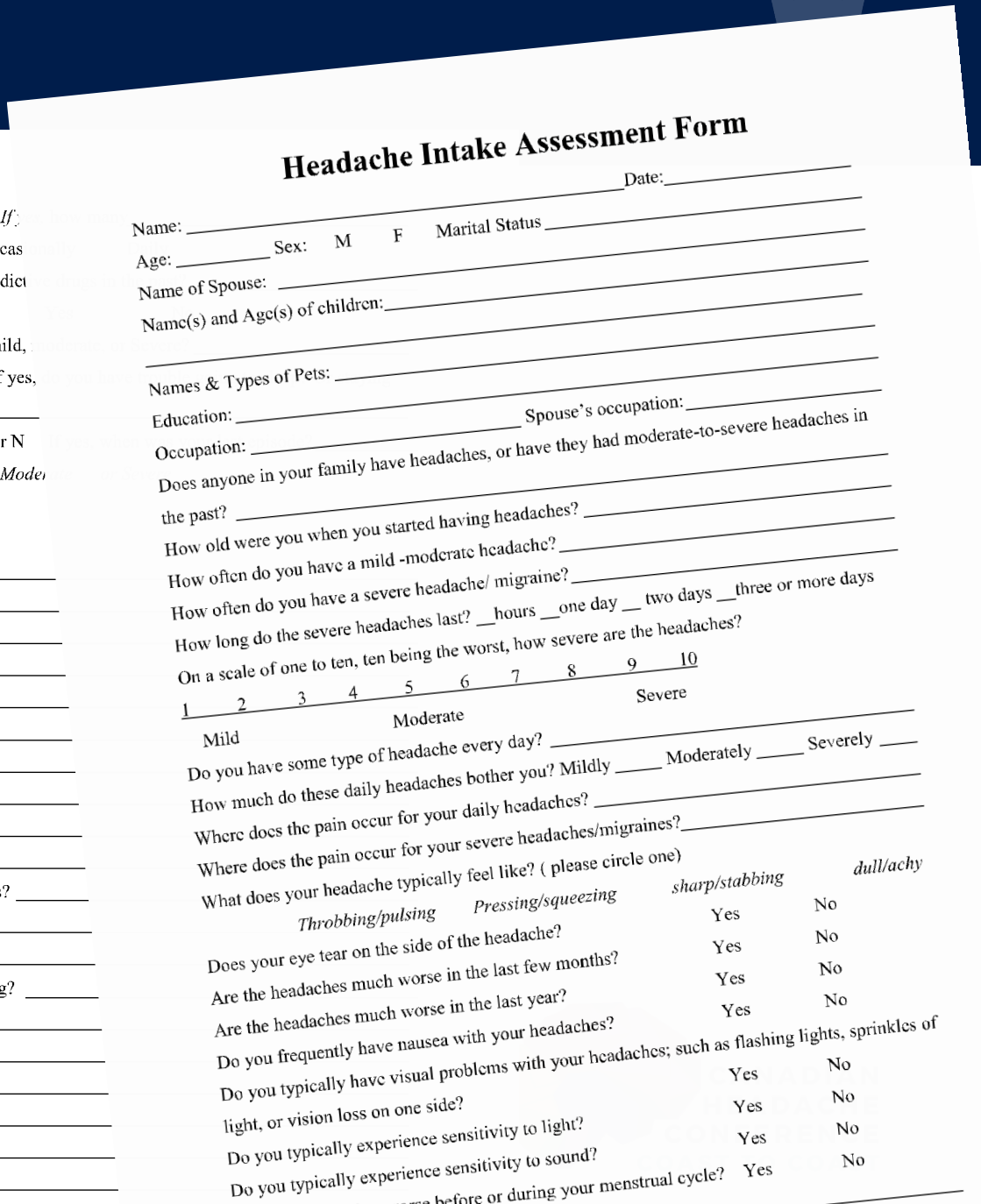
HISTORY OF PRESENTING ILLNESS:
XXXXXXX's headaches seem to have begun [in infancy|in childhood|in their teens|years ago|at the age of] [without any discernible precipitant|following a MVA in|following].
Currently, [headaches occur approximately XX days monthly|headaches are 24/7 without relief; she does not experience any headache free (crystal clear) time]. [Of 30 days in a typical month:|They range from] [1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20] are mild, and only minimally bothersome.
[1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20] are moderate, requiring a change of activity or pace.
[1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20] are severe, requiring rest and stopping activities.
Headaches may last up to XX [hours|days] untreated.
[|They wax and wane over the course of the day.]

In terms of phenotype, headaches [are primarily|may consist of any combination of] [throbbing|steady pressure|sharp|stabbing|ice pick|lancinating|electric|burning|dull] and usually occur [on the right|on the left|bilaterally] in a [retroorbital|frontal|temporal|frontotemporal|parietal|vertex|occipital|holocephalic] distribution. [|Headaches may become holocephalic during extreme exacerbations.]
Associated symptoms include [photophobia|phonophobia| osmophobia|nausea|vomiting|cutaneous allodynia]. [She|He] [can|does not] worsen with exertion and [improves|does not improve] with rest.
Headache triggers include [lights|noises|smells|too little sleep|stress or anxiety|post-stress let-down| weather|menses day|specific foods such as ____|skipping meals|dehydration|caffeine withdrawal| tactile stimulation|wind|water|tooth-brushing|alcohol|exercise|sexual activity\and seemingly any activity that elevates the heartrate].
Aggravating factors [include|are the same] [lights|sounds|odours|movement or activity|bending|straining|upright posture|lying flat].
Alleviating factors include [rest and sleep|lying flat|darkness|quiet|caffeine|cold|heat|pressure|analgesics].

On questioning regarding aura,
she sometimes experiences [blurry vision|scotoma|scintillation|teichopsia|weakness|numbness| dysphasia|dysarthria|vertigo|imbalance|presyncope|syncope].
There is no report of [blurry vision|scotoma|scintillation|teichopsia|weakness|numbness|

Patient Surveys

- May help to gather data while patient is waiting, or even given prior to visit
- Patients often express frustration with interpretation of questions



Do you smoke cigarettes? Yes No *If*
Do you drink alcohol? Never Occas
Have you had any type of problem with addict
Do you tend to be anxious or nervous?
If yes, is your anxiety mild,
Do you have trouble Sleeping? Y N If yes,
asleep? _____
Do you have a history of depression? Y or N
Is/was it: Mild Mode

Other past medical history:

Operations? _____
Ulcers or stomach problems? _____
Asthma? _____
Any other medical problems? _____
Side effects or allergies to any medications? _____
What medications are you **currently** taking? _____

Headache Intake Assessment Form

Name: _____ Date: _____
Age: _____ Sex: M F Marital Status _____
Name of Spouse: _____
Name(s) and Age(s) of children: _____
Names & Types of Pets: _____
Education: _____ Spouse's occupation: _____
Occupation: _____
Does anyone in your family have headaches, or have they had moderate-to-severe headaches in the past? _____
How old were you when you started having headaches? _____
How often do you have a mild -moderate headache? _____
How often do you have a severe headache/ migraine? _____
How long do the severe headaches last? __hours __one day __ two days __three or more days
On a scale of one to ten, ten being the worst, how severe are the headaches?
1 2 3 4 5 6 7 8 9 10
Mild Moderate Severe
Do you have some type of headache every day? _____
How much do these daily headaches bother you? Mildly ____ Moderately ____ Severely ____
Where does the pain occur for your daily headaches? _____
Where does the pain occur for your severe headaches/migraines? _____
What does your headache typically feel like? (please circle one)
Throbbing/pulsing Pressing/squeezing sharp/stabbing dull/achy

Does your eye tear on the side of the headache?	Yes	No
Are the headaches much worse in the last few months?	Yes	No
Are the headaches much worse in the last year?	Yes	No
Do you frequently have nausea with your headaches?	Yes	No
Do you typically have visual problems with your headaches; such as flashing lights, sprinkles of light, or vision loss on one side?	Yes	No
Do you typically experience sensitivity to light?	Yes	No
Do you typically experience sensitivity to sound?	Yes	No
ore before or during your menstrual cycle?	Yes	No

Robert P. Cowan, MD, FAAN

Professor of Neurology and Director of the Headache Facial Pain Program at Stanford University.

Founding medical director at the Keeler Center for the Study of Headache.

Alan Rapoport, MD

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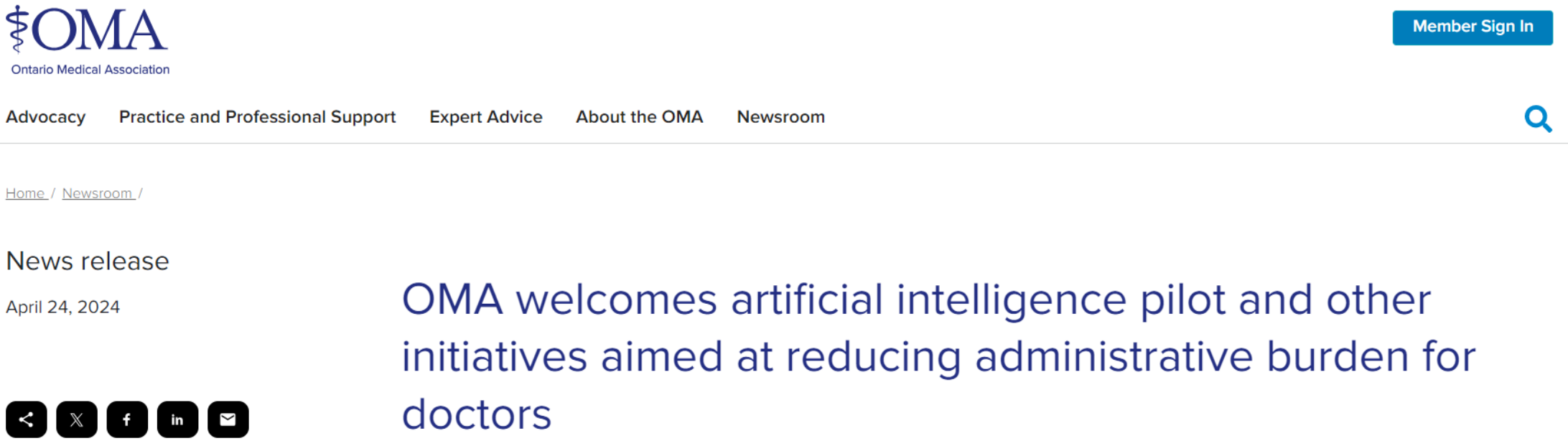
Founder and Director-Emeritus of The New England Center for Headache.

Jim Blythe, PhD

Research Scientist at the Information Sciences Institute at the University of Southern California.

Over 5000 citations across 100 publications in artificial intelligence, knowledge acquisition, machine learning, social network analysis and security.

AI-Assisted History Taking



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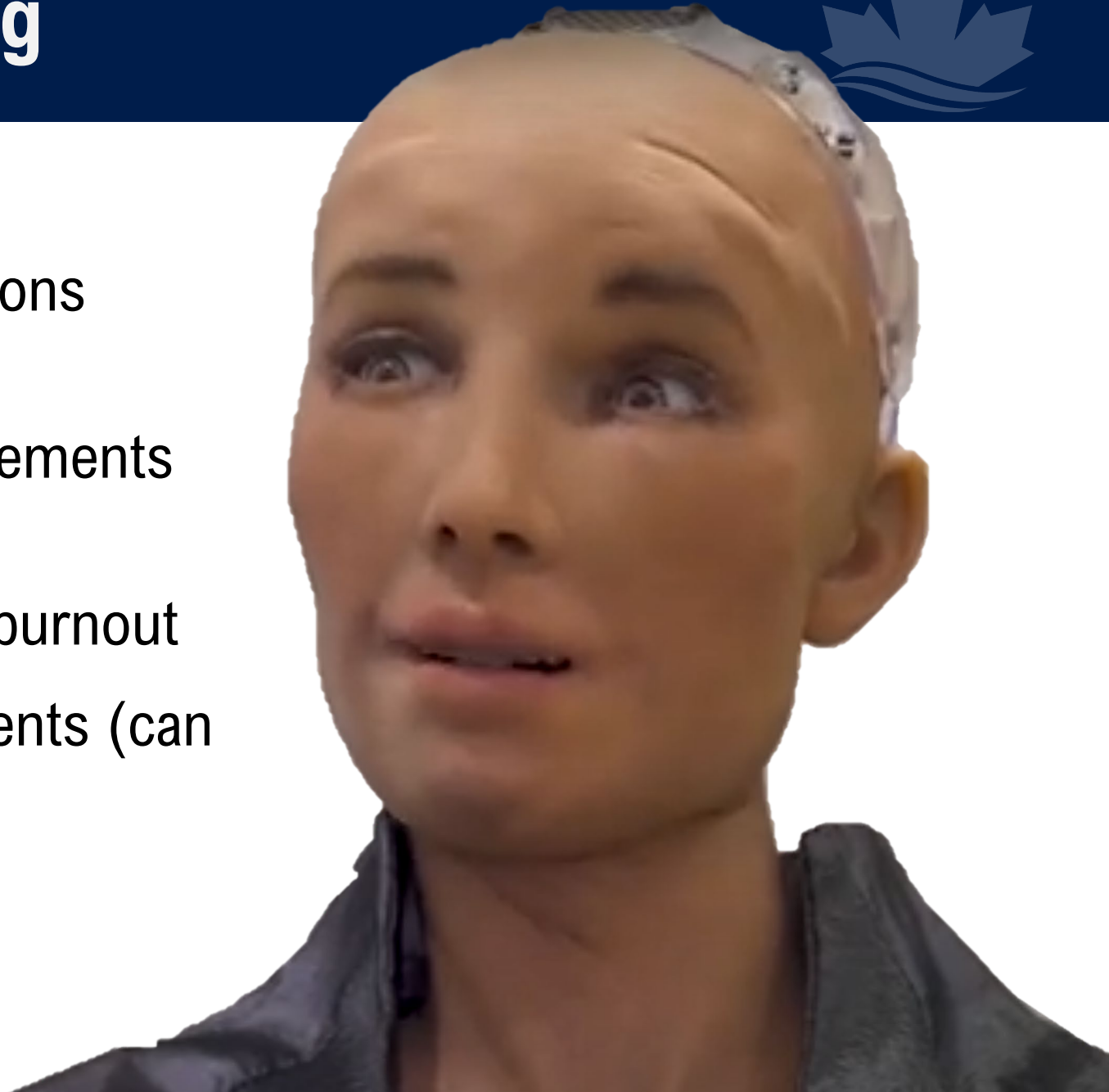
AI-Assisted History Taking

- Summarizes / transcribes conversations between doctor and patient.
- Some models can suggest critical elements that have been omitted by MD
- May reduce administrative burden / burnout
- May improve access to care for patients (can see more patients)



The great AI scribe rollout

July 02, 2024

By Colin Leslie - June 2024, The Medical Post

Some doctors euphoric about new tech that produces SOAP notes automatically at end of patient encounter. But there is a lot to unpack about this fresh technology and how to find the best tools for your practice.

"I will never go back," gushed Dr. Rosemarie Lall, a family physician in Toronto, to Global News. "It decreases the cognitive load you feel at the end of the day!" She said the burden of paperwork had been so bad she was "dreading" her workday until she got an AI scribe.

For Dr. Ali Damji of Mississauga, Ont., the time-saving is astonishing. He started using an AI scribe at the start of the year and found for a clinic day with 14 patients (mix of in-person and virtual), he now spends a total of 30 minutes after the clinic on all documentation including referrals. He estimates using an AI scribe is saving him at least four hours during the week and at least two or three hours over the weekend. "This is almost like getting a whole day of your life back!" he observed.

To be sure, there are doctors who scoff and say that clinicians who finish on time, use templates and don't chart on evenings and weekends, simply don't need them. But the level of enthusiasm from some doctors about this tech is sky-high.

Essentially, AI scribe companies have taken a foundation model from one of the big AI providers like the creator of ChatGPT and then they have tuned it for medical use along with adding other components like speech-to-text and deidentification, explained Simon Ling, executive director for partnerships and stakeholders at OMD (also known as OntarioMD).

The effect for a clinician like Dr. Damji is that now he brings his iPad to each encounter and just talks with the patient while the scribe listens and writes a SOAP note at the end. Dr. Damji glances over that clinical summary and perhaps changes a few things and then, "It is a quick copy and paste into the EMR," he said. (Many doctors use AI scribes that are integrated with their EMR so they'll just have a microphone beside their computer to record encounters.)

Freed

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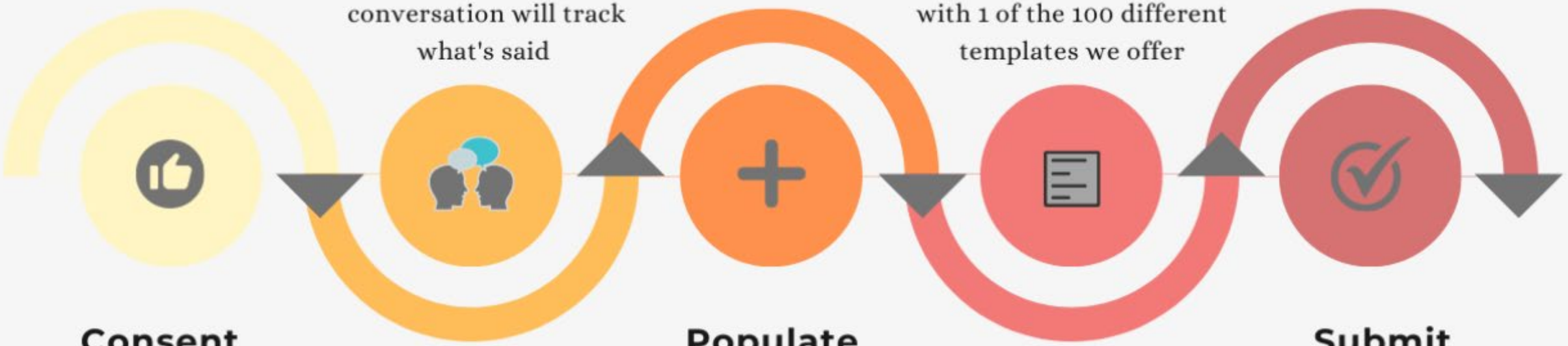
Record

Conversation in the room is analysed, and a real time transcription of the conversation will track what's said

Analyse

AutoScribe creates a Clinician Note based on the encounter with 1 of the 100 different templates we offer



Consent

Patient consent must be gained before AutoScribe will begin to record

Populate

Clinician Note field will populate in real time with the clinically relevant information during encounter

Submit

Once reviewed and editing is complete the note can be pushed to the EMR or copy and pasted

Can I use AI scribes in my practice?

Yes. However, when integrating AI scribes into their practice, physicians should be aware of the following:

- **Accuracy**: AI scribes can create medical records containing errors. Physicians need to review all information summarized by the AI scribe for accuracy and completeness.
- **Accountability**: physicians are ultimately accountable for everything that is captured in the patient's medical record.
- **Data privacy and protection**: all patient data entered into the AI scribe needs to be kept private and secure. Physicians' obligation to protect their patients' personal health information is no different when using AI scribes than in any other circumstance.
- **Transparency**: physicians need to inform patients about how the AI scribe will be used for the purposes of documentation, and in particular obtain patient consent before recording conversations using AI scribes.

Physicians using AI scribes to assist with documentation need to be mindful of existing legal and medical professional obligations which would also apply to the use of AI scribes[1]. Physicians may want to consult the Canadian Medical Protective Association (CMPA) or the Ontario Medical Association (OMA) for further guidance on the use of AI scribes.

You must obtain written consent from the patient before using an AI scribe

You are still responsible for the accuracy and reliability of the patient note (beware of hallucinations!)

You are still responsible for ensuring the AI service meets privacy and security requirements under privacy legislation (PHIPA etc.)

Additional Resources:

College of Physicians and Surgeons of Alberta, Advice to the Profession: Artificial Intelligence in Generated Patient Record Content [PDF] .

College of Physicians and Surgeons of Ontario, eDialogue, Can AI Boost Safety and Quality in Patient Care? .

American Medical Association, ChatGPT and Generative AI: What physicians should consider [PDF] .

DISCLAIMER: The information contained in this learning material is for general educational purposes only and is not intended to provide specific professional medical or legal advice, nor to constitute a "standard of care" for Canadian healthcare professionals.

Summary

- Give yourself time (60-90 min) to take a thorough and complete history
  - Builds patient trust
  - More likely to uncover secondary contributors to headache
- Start with open ended questions
- Templates may be useful but caution with respect to suggestibility
- Avoid minimizing symptoms like vertigo, brain fog, etc.
- Validate symptoms when patients express them. Empathy is key
- Always screen for red flags and investigate when appropriate
- AI Scribes may assist with workflow and thoroughness

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THANK YOU