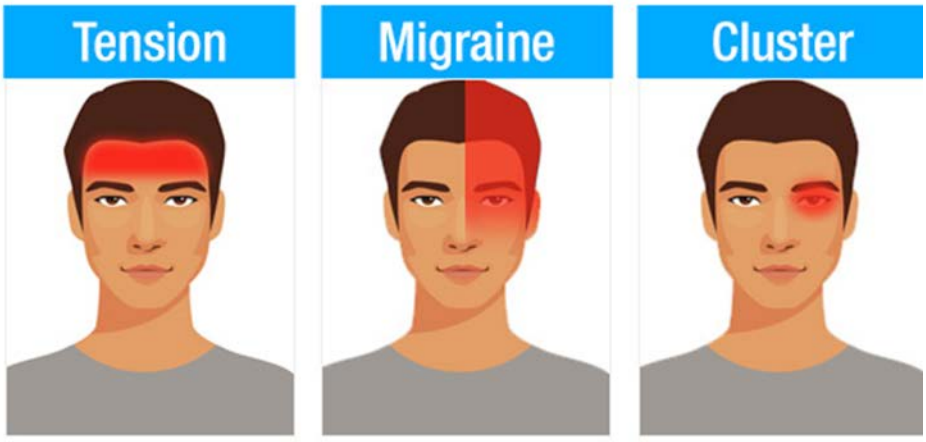
HEADACHE DISORDER



Disclaimer

The information in the guide is meant to help decide on the treatment approach to each patient individually. Therefore, the professional's advice is to take full responsibility of their safety and know their limits. Before treating your patient using this guideline be sure that your patient is well diagnosed and has been treated before. Every professional should take full responsibility for the safety of their patient.
This guide reflects opinions synthesized from an organized group of experts into a written document. It should reflect the expert views of the treatment of the disease.
The team of professional experts reviewed the guidelines and discussed it with the panel of individuals who are well versed on the topic of interest while carefully examining and discussing the scientific data available.
This guideline has been designed to provide a practical and accessible guidance for health care practitioners. It is the responsibility of treating physicians to decide what is suitable for their patients. Therefore, the guidelines are not a substitute for the attending doctor's clinical judgment

What type of headache does your patient have:	
□Cluster (Pain is in and around the eye)	
Drugs Recommended for Acute Treatment of Cluster Headache:	The first-line treatments for acute cluster headache are oxygen or sumatriptan, or a combination of the two.
□Sumatriptan (Imitrex):	6 mg at HA onset (Max: 12 mg daily) * Contraindicated if ischemic heart disease, history of hemiplegic or basilar migraine; peripheral vascular disease, uncontrolled hypertension; use within 24 hours of ergotamine derivatives; use within 24 hours of another 5-HT_1 agonist; concurrent administration or within 2 weeks of discontinuing an MAO type A inhibitor; Wolff-Parkinson-White syndrome or arrhythmias associated with other cardiac accessory conduction pathway disorders; severe hepatic impairment (excluding Sumavel).
□ Zolmitriptan (Zomig)	5–10 mg at HA onset (Max: 10 mg daily). * Contraindicated if ischemic coronary artery disease, coronary artery vasospasm, Wolff-Parkinson-White syndrome or arrhythmias associated with other cardiac accessory conduction pathway disorders; peripheral vascular disease; ischemic bowel disease; uncontrolled hypertension; recent use (within 24 hours) of treatment with another 5-HT_1 agonist, or an ergotamine-containing or ergot-type medication , transient ischemic attack, or history of hemiplegic or basilar migraine; coadministration of (MAO I) or use of zolmitriptan within 2 weeks of discontinuation of MAO A inhibitor therapy.
□ Inhalation of 100% oxygen by nonbreather facial mask at a rate of at least 12 L/min for 15 minutes.(7 L per minute for 15 minutes via face mask) * AVOID Repeat or frequent administration over a short period of time.	
□ IV dihydroergotamine	1 mg at first sign of headache; repeat hourly up to a maximum dose of 2 mg/day; maximum dose: 6 mg/week. *Contraindication if uncontrolled hypertension, ischemic heart disease, angina pectoris, history of MI, silent ischemia, or coronary artery vasospasm including severe hepatic or renal dysfunction; following vascular surgery; avoid use within 24 hours of ($5HT_1$) receptor agonists (triptans), other serotonin agonists, or ergot-like agents; concurrent use of peripheral and central vasoconstrictors; concurrent use of potent inhibitors of CYP3A4, pregnancy and breastfeeding. ***Do not offer paracetamol, NSAIDS, opioids, ergots or oral triptans for the acute treatment of cluster headache

Cluster (Pain is in and around the eye)

Drugs recommended for cluster headache prophylaxis:

The first prophylactic treatment for chronic headache should be identification of any underlying trigger factor. Tension type headache may be a simple somatic reaction to stress. Prophylactic drugs should be given according to the frequency of headaches, their duration and intensity whenever drug treatment for the acute phase has not eased the pain completely. The tricyclic antidepressants are the initial drug of choice for use in tension headache.

Drug	Dosage and route	
Verapamil Verapamil, in a dosage of 360 to 480 mg daily, can effectively reduce the number of attacks during a cluster headache period.	120 to 160 mg orally three times daily	240 mg in 3 divided doses; may increase dose by 80 mg every 1 to 2 weeks until headaches subside or adverse reactions develop; maximum dose 960 mg/day
*Contraindication if severe left ventricular dysfunction; hypotension (systolic pressure <90 mm Hg) or cardiogenic shock; sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker); second- or third-degree AV block (except in patients with a functioning artificial ventricular pacemaker); atrial flutter or fibrillation and an accessory bypass tract (Wolff-Parkinson-White [WPW] syndrome, Lown-Ganong-Levine syndrome)		
Prednisone	50 to 80 mg orally daily tapered over 10 to 12 days	5 days of 60 to 100 mg/day prednisone and then tapered by a dose reduction of approximately 10 mg/day.
Divalproex	600 to 2,000 mg daily	
Topiramate	25 mg orally daily for seven days, then increase dose by 25 mg daily every week to a maximum dosage of 200 mg daily	
NOT SURE □ Lithium (Very helpful for chronic cluster) 600 to 1,200 mg/day, with a suggested starting dose of 300 mg twice daily. * Contraindication if Severe cardiovascular or renal disease, severe debilitation, dehydration, sodium depletion, concurrent use with diuretics		

□ Tension (Pain is like a band squeezing the head).

Drugs recommended for tension headache prophylaxis:

Medication	Dose	
Tricyclic antidepressant		
•Amitriptyline:	10 to 25 mg once daily at bedtime; may increase dose based on response and tolerability in 10 to 25 mg increments at intervals of ≥1 week up to 125 mg/day (Max : 150 mg/day).	Amitriptyline should be started on low dose (10 mg to 25 mg per day) and titrated by 10-25 mg weekly till the therapeutic effect or the side effects appear.
Nortriptyline hydrochloride	10 to 25 mg once daily at bedtime; may increase as tolerated as soon as every 3 days up to 150 mg/day (Max: 150 mg/day).	
Doxepin	10 to 25 mg once daily at bedtime; may increase dose based on response and tolerability in 10 to 25 mg increments at intervals of ≥1 week up to 125 mg/day (Max : 150 mg/day).	
Protriptyline	5-25 mg /day	
Noradrenergic and serotonergic antidepressant *has been found to be efficacious and can be given in situations where amitriptyline is either ineffective or contraindicated		
mirtazapine	At a dose of 30 mg/day	
Botulinum toxin type A		
Botulinum toxin (Onabotulinum toxin A)	155 unit ,via 31 injection, every 3 months	

Tension-type headache

□ **Aspirin :** 1000 mg/day (for rescue).

□ **Paracetamol :** 650 mg every 4-6 hours (Max 4g/day).

□ NSAID

- Ibuprofen : OTC :200-400 mg 3-4 times daily (Max: 1200 mg /day).
  Prescription: 400-800 mg 3-4 times daily (Max: 3200 ,g/day).
- Naproxen : 750 mg (Max: 1250mg/day).
- Ketoprofen : Immediate release : 25-50 mg every 6-8 hours .
- Ketorolac : 10 mg every 4-6 hours (Max: 40 mg/day).
- Indomethacin : 20 mg three times daily or 40 mg 2-3 times daily .

** Acute medications should be taken for episodic tension-type headache not more than 3 days (butalbital-containing), 9 days (combination analgesics), or 15 days (NSAIDs) per month to prevent the development of medication-overuse or chronic tension-type headache.

***Do not offer opioids for the acute treatment of tension-type headache.

□ Migraine (Pain, nausea and visual changes are typical of classic form)
Acetaminophen and nonsteroidal anti-inflammatory drugs used for acute migraine treatment

Drug treatment for mild-moderate migraine headaches:

Medication	Dose	
Acetaminophen	1000mg/4 hours	Maximum dose 4000mg
Ibuprofen	400mg/4hours	Maximum dose 2400mg
Naproxen sodium (absorbed more quickly than naproxen)	500-550mg – twice daily	Up to 852mg
Acetylsalicylic acid (ASA)	650mg,q4h	(max 4000mg daily)
Diclofenac	50mg	Once daily

Drug treatment for Acute Migraine Headache moderate-sever:

Drug	Dose	
□Sumatriptan (Imitrex)	6 mg SC stat; may repeat in 1 hour or orally 50 to 100 mg once	(Max: 200mg daily).
Metoclopramide	10mg intravenous (IV)	10 mg as a single dose; for migraine with severe nausea and vomiting.
□Chlorpromazine (Thorazine) 1 mg/kg		
* Contraindication if concomitant use with large amounts of CNS depressants.		
Dihydroergotamine	1mg IV combined with Metoclopramide IM	
Ketorolac	30mg IV or 60 mg IM	

□Ergotamine tartrate (Cafergot) 1–4 mg stat, then 1–2mg every 30 minutes (max: 6 mg/attack or 10 mg/wk).
*Contraindication if peripheral vascular disease; hepatic or renal impairment; coronary artery disease; hypertension; sepsis; ergot alkaloids are contraindicated with strong inhibitors of CYP3A4 and pregnancy.

Antiemetic for Acute treatment of migraine:
These medications act as antiemetics mainly because they are dopamine receptor antagonists. In addition, they are effective for reducing migraine headache pain.

□**Metoclopramide** 10 mg as a single dose; for migraine with severe nausea and vomiting, some experts increase the dose to 20 mg.

□**Ondansetron 4**mg,8mg twice daily.
*Contraindication if concomitant use with apomorphine.

□**Dexamethasone** 0.5 to 9 mg/day in divided doses every 6 to 12 hours
*Contraindication if systemic fungal infections

Menstrual-related migraine:

□**Frovatriptan** 2.5 mg; if headache recurs, a second dose may be administered after 2 hours have elapsed since the first dose (maximum: 7.5 mg/day)
* Contraindication if Ischemic coronary artery disease ,coronary artery vasospasm, including Prinzmetal's angina; Wolff-Parkinson-White syndrome or arrhythmias associated with other cardiac accessory conduction pathway disorders; history of stroke, transient ischemic attack, or history of hemiplegic or basilar migraine; peripheral vascular disease; ischemic bowel disease; uncontrolled hypertension; recent use (within 24 hours) of another 5-HT_1 agonist, an ergotamine containing or ergot-type medication .

□**Zolmitriptan(15) (Short-term prophylaxis)** Oral: 2.5 mg 2 to 3 times daily starting 2 days prior to the expected onset of menses and continued through to 5 days after the onset of menses (7 days total) .

*Contraindication if ischemic coronary artery disease ,coronary artery vasospasm, including Prinzmetal variant angina, or other significant underlying cardiovascular disease; Wolff-Parkinson-White syndrome or arrhythmias associated with other cardiac accessory conduction pathway disorders; peripheral vascular disease; ischemic bowel disease; uncontrolled hypertension; recent use (within 24 hours) of treatment with another 5-HT_1 agonist, or an ergotamine-containing or ergot-type medication like ,history of stroke, transient ischemic attack, or history of hemiplegic or basilar migraine; coadministration of (MAOAI) inhibitors or use of zolmitriptan within 2 weeks of discontinuation of MAO A inhibitor therapy.

□**Naratriptan** 1 mg twice daily beginning 2 to 3 days prior to expected onset of symptoms; continue for a total of 5 to 6 days

*Contraindication if Ischemic coronary artery disease (CAD) ,coronary artery vasospasm, including Prinzmetal's angina; Wolff-Parkinson-White syndrome or arrhythmias associated with other cardiac accessory conduction pathway disorders; history of stroke, transient ischemic attack (TIA), or history of hemiplegic or basilar migraine; peripheral vascular disease; ischemic bowel disease; uncontrolled hypertension; recent use (within 24 hours) of another 5-HT_1 agonist, ergotamine-containing medication, or ergot-type medication (eg, dihydroergotamine or methysergide); severe renal impairment (CrCl <15 mL/minute) or severe hepatic impairment.

Treatment of migraine during pregnancy:

□**Paracetamol Category "C":** Two 500 mg tablets orally every 4 to 6 hours
□**Triptan:** 20 mg or 40 mg daily

Drugs Useful for Migraine Headache Prophylaxis:

*The following medications are established as effective and should be offered for migraine prevention (level A recommendation):

Medication	Dose	
β-Blockers		
□Propranolol (Inderal)	20 mg BID–TID; gradually ↑ dose at weekly intervals to effect or maximum of 320 mg/d (Taken 5-8 weeks)	
*Contraindication if uncompensated heart failure (unless the failure is due to tachyarrhythmias being treated with propranolol); cardiogenic shock; severe sinus bradycardia; sick sinus syndrome; or heart block greater than first-degree (except in patients with a functioning artificial pacemaker); bronchial asthma.		
□**Verapamil (Isoptin, Calan)**	80 mg TID. If needed, ↑ dose gradually to max of 480 mg/d.	
*Contraindication if severe left ventricular dysfunction; hypotension (systolic pressure <90 mm Hg) or cardiogenic shock; sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker); second- or third-degree AV block (except in patients with a functioning artificial ventricular pacemaker); atrial flutter or fibrillation and an accessory bypass tract (Wolff-Parkinson-White [WPW] syndrome, Lown-Ganong-Levine syndrome).		
Antiepileptic drugs (AEDs)		
□**Valproate (Depakote)**	250 mg BID; ↑ by 250 mg/d at weekly intervals to effect or adverse effects; most should benefit from 1,000–2,000 mg/d	
*Contraindication if hepatic disease or significant impairment; urea cycle disorders; prevention of migraine in pregnant women and women of childbearing potential who are not using effective contraception; known mitochondrial disorders caused by mutations in mitochondrial DNA polymerase gamma (POLG; eg, Alpers-Huttenlocher syndrome [AHS]) or children <2 years of age suspected of having a POLG-related disorder		
□**Topiramate (Topamax):**	25 mg daily (in evening); ↑ by 25 mg/d up to 100 mg/d (given BID) Taken 5-8 weeks	
*Contraindication if patients with metabolic acidosis who are taking concomitant metformin.		

The following medications are probably effective and should be considered for migraine prevention (level B recommendation):

Medication	Dose	
Antidepressants		
□**Amitriptyline (Elavil) :**	10–25 mg HS; ↑ by 10–25 mg/d at weekly intervals to maximum of 150 mg/d; most should benefit from 50–75 mg/d	

□**Naproxen sodium**: 250 to 500 mg twice daily.
* Continue treatment for 2 to 3 months to assess clinical benefit; consider tapering or discontinuing dose if headaches are well-controlled after 3 to 6 months
*Contraindication if history of asthma, urticaria, or allergic-type reactions after taking aspirin or other NSAIDs; use in the setting of coronary artery bypass graft (CABG) surgery

□**Gabapentin:** Up to 1200mg per day.

□**Riboflavin:** 400mg per day