# Sample Moderate to Severe Migraine ED Care Path

### 1. Diagnosis & Treatment Targets

Clinical Diagnosis of Migraine is established. Ancillary testing is often not required for the diagnosis, but is used as clinically indicated to rule out or diagnose other condition.

Manage patient expectations. Set realistic goals for ED treatment. Emphasize the drawbacks of narcotic therapy in non-malignant headache.

### 2. Treatment Principles

*Apply a stepwise approach using a combination of the following interventions (these are general suggestions):*

1) IV Fluids (generally 500ml N/S)
2) Abortive Medications
    i) Anti-dopaminergic Agents
        (a) Prochlorperazine (stematil) 10mg IV (with or without 12.5 mg of diphenhydramine(Benadryl))
        (b) Maxaran 10mg IV
        (c) Haloperidol 5mg IV
    ii) Anti-inflammatories
        (a) Toradol 30-60mg IV
    iii) Triptans
        (a) Sumatriptan 6mg subcut
    iv) Ergots
        (a) DHE (Dihydroergotamine) 1mg IV or IM
3) Especially for recurrent/severe attacks, consider:
    i) Dexamethasone 10-20mg IV or IM

### 3. Reassess

If clinical course does not follow the expected path, revisit your clinical diagnosis.

### 2. Future Management

Instruct the patient on the importance of following up with their primary care physicians or specialist. This is to consider revisiting the current treatment plan of the patient, both is managing triggers and the use of abortive or preventative therapy.

Instruct the patient on the importance of returning to the ED if the clinical course worsens or does not follow the expected path.

# Sample Emergency Department Care Pathway for Migraine Headache

**Migraine**: neurogenic primary headache syndrome with secondary changes in cerebral perfusion

**Epidemiology**: Females>Males; first degree relative with history of migraine

**S+S**: gradual onset; unilateral or bilateral; pulsatile; worsens with time, physical activity; phonophobia; photophobia; nausea/vomiting; may have prodrome and/or postdrome symptoms

**Aura**: complex of neurologic symptoms; develops gradually over min, lasts <1 hour; most common visual (ex. scintillating scotoma), also sensory (ex. parasthesias), and motor

**P/E**: usually normal

**Red Flags: sudden or new onset,worst H/A of life, focal neuro symptoms, papilledema, systemic (fever, severe HTN, decreased LOC, etc)**

**Differential Diagnosis**: Cluster H/A, tension H/A, Temporal/Giant Cell Arteritis, Meningitis, ICH, etc.

**Metoclopramide Contraindications**:
-Allergy, GI obstruction/perforation/hemorrhage, pheocromocytoma, seizures
**Prochlorperazine Contraindications**:
-Allergy, severe HTN, CV disease

**Side Effect**: Risk of extrapyramidal symptoms/akathisia; treated with diphenhydramine

## Treatment Orders

☐ 1. Minimize visual /auditory stimulation

☐ 2. Start IV; give *Normal Saline 1L bolus, then 120 ml/hr

☐ 3. Vital signs + neurovitals q1hour

*Unless known grade III/IV LV, electrolyte abnormality, CHF, severe HTN

**Triptan Contraindications**:
-DO NOT use IV
- Avoid in hemiplegic migraine, history of cardiac, peripheral vascular syndromes (angina, MI, stroke, TIA, Prinzmetal's angina, ischemic bowel, hepatic impairment, etc.)
-Do not use within 2 weeks of MAO-A inhibit; within 24 hr. of ergot-type meds
-Risk of serotonin syndrome if also use of SSRI/SNRI

## ABORTIVE THERAPY (1 of following 4):

### 1. Dopamine-Antagonist Antiemetic

☐ Metaclopramide 10 mg IV/IM

(OR )

☐ Prochlorperazine 10 mg IV/ IM

(PLUS)

☐ Diphenhydramine 25 mg IV q1hour up to 50 mg

### 2. $$ Ergots (α -adrenergic blocker, potent venoconstrictor, more nausea than triptan but less chest pain)- Severe

☐ Metaclopramide 10 mg IV/IM

(PLUS)

☐ Dihydroergotamine (DHE-45) Migranal 1 mg IV/IM q1hour prn up to 2 mg IV or 3 mg IM in 24 hours

### 3. $$$ Triptans (serotonin 1b/1d agonists, promote vasoconstriction, block pain pathways, migraine-specific)

Sumatriptan (Imitrex)

☐ Oral: 50 mg po

☐ Nasal: 20 mg intranasal

☐ Subcutaneous: 6 mg SC

(OR) Rizatriptan (Maxalt)

☐ Oral dissolve tab: 10 mg

### 4. NSAIDS (1 of following):

Ketoralac☐ 30 mg IV or

☐60 mg IM

☐ Naproxen 750-1250 mg po; OR

☐ ASA 650-1000 mg po; OR

☐ Ibuprofen 400-800 mg po; OR

(PLUS)

☐ Metoclopramide 10 mg IV/IM

**DHE-45 (Migranal) Contraindications**:
-*do NOT use within 12hr of Triptan or 24 hr of Naratriptan
-Allergy, peripheral vascular disease, severe hepatic/renal impairment, CAD, HTN, sepsis, pregnancy, renal vascular surgery
Black Box Warning: serious and/or life-threatening peripheral ischemia reported with coadministration with potent CYP 3A4 inhibitors

**NSAIDS cautions:**
-Allergy, GI bleed/ulcers, asthma
-Increase risk CV thrombotic events, MI, stroke
-Use with other NSAIDS
-Advanced renal impairment

## PREVENTION OF EARLY RECURRANCE

☐ Dexamethasone 10-25 mg IV/IM

**Considerations in Pregnancy**: migraines usually improve after 1st trimester. Attempt rest & ice. If require treatment trimester 1 & 2, acetaminophen +/- metoclopramide are Class B drugs. Avoid NSAIDS.