

Child  $\geq 5$  Years with Complaint of Migraine Headache

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 Adapted from Children's Hospital of Philadelphia ED Pathway for Evaluation/Treatment of the Patient with Migraine Headache



### Is it a migraine?

**Headache lasting 1-72 hours without alternative dx and has at least 2 of the following:**

- Non-occipital location
- Pulsating quality
- Moderate/severe pain intensity
- Aggravated by or causing avoidance of routine physical activity

**AND at least 1 of the following:**

- Nausea, vomiting, or both
- Photophobia and phonophobia

**Headache red flags:**  
 Headache with altered mental status and/or focal neurologic findings

- Notify attending STAT
- Continue care as indicated
- Consider Stroke code
- Imaging as appropriate
- Neurology Consult

**Assessment**

<b>General</b>	<ul style="list-style-type: none"> <li>• Complete set VS</li> <li>• CR monitor with appropriate alarms</li> </ul>
<b>Brief Neurologic Assessment</b>	<ul style="list-style-type: none"> <li>• Mental status (Notify attending STAT if abnormal)</li> <li>• Pupils; consider fundoscopic exam</li> <li>• Symmetry of cranial nerves</li> <li>• Symmetry of motor exam</li> </ul>
<b>Pain</b>	<ul style="list-style-type: none"> <li>• Assess and document with appropriate scales</li> </ul>
<b>PO vs. IV</b>	<ul style="list-style-type: none"> <li>• Assess need for IV</li> </ul>
<b>Labs</b>	<ul style="list-style-type: none"> <li>• Urine or blood HCG</li> </ul>

**PO vs. IV**

<b>PO</b>	<ul style="list-style-type: none"> <li>• Mild/moderate headache</li> <li>• No current vomiting</li> <li>• Suboptimal dosing/frequency of NSAIDS at home</li> </ul>
<b>IV</b>	<ul style="list-style-type: none"> <li>• Moderate/severe headache</li> <li>• Currently vomiting</li> <li>• Lack of response to appropriate NSAID use defined as Ibuprofen 10 mg/kg, maximum 800 mg within preceding 6 hours</li> </ul>

**Migraine Headache Medications in ED (Options)**

Medication	Dose	Route	Max
Metoclopramide (Reglan)	0.2 mg/kg	IV/PO	10 mg
Prochlorperazine (Compazine)	0.15 mg /kg	IV/PO	10 mg
Promethazine (Phenergan)	0.5 mg/kg	IV/PO	25 mg
Ondansetron (Zofran)	0.1 mg/kg	IV/PO	8 mg
Ketorolac (Toradol)	0.5 mg/kg	IV	30 mg
Ibuprofen	10 mg/kg	PO	800 mg
Valproic Acid	15 mg/kg	IV	1000 mg

**Discharge Medications (Options)**

<b>Ibuprofen/Ketorolac</b>	<ul style="list-style-type: none"> <li>• Ibuprofen 10 mg/kg PO, max 800 mg, q 6 hours prn</li> <li>• Patients requiring NSAID q 6 hours around the clock for &gt; 48 hours require re-evaluation</li> <li>• SE: Stomach upset</li> </ul>
<b>Metoclopramide</b>	<ul style="list-style-type: none"> <li>• Provide a prescription for 2 doses of Metoclopramide for home use. 1st dose may be given 6 hours following the ED dose. Additional dose may be given in 6 hours after the first dose if the headache continues</li> <li>• Dose 0.2 mg/kg PO</li> <li>• Max: 10 mg</li> <li>• SE: Sedation, restlessness, rare dystonic reaction(treat with diphenhydramine)</li> </ul>
<b>Methylprednisolone</b>	<ul style="list-style-type: none"> <li>• &lt; 12 years: Discharge with 2 mg/kg/day with rapid taper over 5-6 days</li> <li>• <math>\geq 12</math> years: Provide a prescription for a medrol dose pack.</li> <li>• Do not give simultaneous NSAID</li> <li>• Start pack the day following the ED visit</li> <li>• SE: Increased appetite, stomach upset, mood changes, irritability insomnia</li> </ul>
<b>Valproic Acid</b>	<ul style="list-style-type: none"> <li>• For patients who respond to Valproic Acid and have chronic migraine, or a history of rebound of headache that has not been controlled with oral prednisone taper in the past, discuss with neurology and consider discharging with 2 weeks of oral valproic acid.</li> <li>• Age: <math>\geq 7</math> years</li> <li>• Dose: 10-15 mg/kg/day divided every 12 hours, Max initial dose 250mg/dose</li> <li>• SE: Nausea, drowsiness, dizziness, vomiting, decreased appetite, tremors</li> <li>• Uncommon serious SE: liver dysfunction/failure, pancreatitis, teratogenesis, ovarian cysts</li> <li>• Check pregnancy test and hepatic panel before discharge</li> <li>• Neurology Follow-up Required (1-2 weeks), place outpatient referral in Epic</li> </ul>

