

Pediatric headache – Emergency Department

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Headache in patient 6 years old or greater **without red flag signs*** AND failed oral analgesics/hydration

Establish IV access

Give all 4 agents:

1. KetoROLAC (Do NOT give if NSAIDs in preceding six hours, patient is pregnant, and/or patient has kidney disease)
2. Prochlorperazine**
3. DiphenhydrAMINE
4. Normal Saline bolus 20 mL/kg (max 1000 mL)

Reassess after 45 minutes

Persistent headache

Give all 3 agents:

1. Magnesium
2. Valproic Acid (Do NOT give if patient is pregnant and/or patient has a metabolic disorder)
3. Dexamethasone

Reassess after 45 minutes

Persistent headache

Contact Riley Children's Health Neurology

Headache resolution or baseline

Discharge
PCP follow-up within 1 week or neurologist if already established
Consider referral to outpatient neurology if not already established

***Consider imaging options of either fast spin MRI brain w/o contrast (preferred) or CT head w/o contrast if there are any of the red flag signs listed below:**

- New headache less than 1 month duration
- Associated head injury
- Associated fever and meningismus
- Headache waking from sleep or positional
- Worsening severity/frequency/duration
- Any focal deficits or altered mental status

**For patients with a history of reaction to prochlorperazine, may use droperidol as an alternative. Do not use droperidol for patients with a history of arrhythmias or cardiac co-morbidities.

Headache resolution or baseline

Discharge

PCP follow-up within 1 week or neurologist if already established

Medication dosing

KetoROLAC	0.5 mg/kg	IV	Max 15 mg/dose
Prochlorperazine	0.15 mg/kg	IV	Max 10 mg/dose
DiphenhydrAMINE	1 mg/kg	IV/PO	Max 25 mg/dose
Droperidol	0.1 mg/kg	IV/IM	Max 5 mg/dose
Magnesium sulfate	50 mg/kg Over 30 minutes	IV	Max 2 gram/dose
Valproic Acid	20 mg/kg Over 60 minutes	IV	Max 2 gram/dose
Dexamethasone	0.6 mg/kg	IV	Max 12 mg/dose

References

Reiter PD, Nickisch J, Merritt G. Efficacy and tolerability of intravenous valproic acid in acute adolescent migraine. Headache. 2005 Jul-Aug;45(7):899-903.; Sheridan DC, Spiro DM, Meckler GD. Pediatric migraine: abortive management in the emergency department. Headache. 2014 Feb;54(2):235-45.; Singh A, Alter HJ, Zaia B. Does the addition of dexamethasone to standard therapy for acute migraine headache decrease the incidence of recurrent headache for patients treated in the emergency department: a meta-analysis and systematic review of the literature. 2008. In: Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews [Internet]. York (UK): Centre for Reviews and Dissemination (UK); 1995-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK75364/>



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CONTACT RILEY CHILDREN'S HEALTH

Calling from an ED or inpatient setting? Call the IU Health Transfer Center for transfer or consult at **877.247.1177**.

Calling from an outpatient setting? Call MyRiley at **1.844.697.4539**.

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