Form Title  Emergency Department Primary Headaches
Adult Order Set

Form Number  21001

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## Goals of Care

**Goals of Care Designation:** _______________________________________________________________

## Intravenous Fluid Orders *(severe cases only)*

**IV Maintenance**
- ☐ Intravenous Cannula – Insert: Initiate IV
- ☐ IV Peripheral Saline Flush/Lock: Saline Lock

**IV Fluid Boluses**
- ☐ 0.9% sodium chloride infusion _______ mL as fast as possible
- ☐ ______________________________ (specify fluid) infusion _______ mL IV as fast as possible

**IV Fluid Infusions**
- ☐ 0.9% NaCl infusion at _______ mL/hour
- ☐ Other: ________________________________ infusion at _______ mL/hour

## Laboratory Investigations

*Generally not indicated for primary headaches; may be useful in patients with history concerning for serious secondary cause (see Table 1), or for coexisting clinical concerns (e.g. protracted vomiting/dehydration with concerns for electrolyte imbalance).*

### Hematology
- ☐ Complete Blood Count (CBC) and differential
- ☐ ESR *(for suspected temporal arteritis or polymyalgia rheumatica)*
- ☐ INR

### Chemistry
- ☐ Electrolytes (Na, K, Cl, CO₂)
- ☐ Glucose Random
- ☐ Creatinine
- ☐ C-Reactive Protein *(for suspected temporal arteritis)*

### Blood Gases
- ☐ Blood Gas Venous
- ☐ Carboxyhemoglobin

### Urine Tests
- ☐ Pregnancy Test, Urine - POCT

### Special Fluids: CSF
- ☐ Cell count
- ☐ Gram stain, C&S
- ☐ Protein, glucose
- ☐ Viral studies

### Other Labs *(based on presentation needs of the patient)*
- ☐
- ☐

Prescriber Signature: ____________________________

Date *(dd-Mon-yyyy)*: ____________

Time *(hh:mm)*: ____________
Diagnostic Imaging

Defer neuroimaging in patients who have a normal clinical examination, who meet diagnostic criteria for a primary headache subtype, and have no “red flags” for a secondary headache disorder (see Clinical Assessment Tools). Consider in patients with clinical features suggestive of a secondary cause of headache.

☐ CT Head, non-enhanced
  • See Clinical Assessment Tools for clinical features suggesting the need for imaging
  • CT head is highly sensitive for SAH only when performed less than 6 hours after onset of headache; LP is indicated to rule out SAH if headache greater than 6 hours and negative CT

☐ CT Head, Enhanced (consider if abscess, neoplasm suspected)

☐ CT Angiogram Head (consider if aneurysm / AVM / cervicocranial arterial dissection / CVA suspected)

☐ CT Venogram Head (if cerebral venous thrombosis suspected)

☐ MR Brain
  • If required, X-ray Orbits to rule out Foreign Body

Other Investigations

☐ Electrocardiogram - 12 Lead (ECG)

Medications

Nonopiate Analgesia

Oral

☐ acetaminophen tab 975 or 1000 mg PO once
☐ acetaminophen tab 325 to 1000 mg PO every 4 hours PRN for pain (maximum 3000 mg/day)
☐ acetaminophen tab ______ mg PO ____________________
  Suggest 325 to 650 mg for mild to moderate pain, 975 to 1000 mg for moderate to severe pain

☐ ibuprofen 400 mg PO once
☐ ibuprofen 200 to 400 mg PO every 6 hours PRN for pain (maximum 1200 mg/day)
☐ ibuprofen ______ mg  PO ____________________
  Suggest 200 mg for mild to moderate pain, 400 mg for moderate to severe pain

Parenteral

Recommend restricting ketorolac use to actively vomiting patients and using lowest effective dose

☐ ketorolac 10 mg IV once
☐ ketorolac ______ mg  IV ____________________

Prescriber Signature  Date (dd-Mon-yyyy)  Time (hh:mm)
# Medications (continued)

## Antiemetics

*PO administration or slow infusion via IVPB are preferred for metoclopramide to reduce the risk of akathisia. Suggest 5 mg for mild/moderate nausea or if CrCl less than 40mL/min; 10 mg for moderate/severe nausea, and CrCl over 40mL/min*

- [ ] metoclopramide 10 mg PO once
- [ ] metoclopramide 5 to 10 mg PO every 6 hours PRN for nausea/vomiting
- [ ] metoclopramide ______ mg PO ___________________

- [ ] metoclopramide 10 mg IVPB once
- [ ] metoclopramide 5 to 10 mg IVPB every 6 hours PRN for nausea/vomiting
- [ ] metoclopramide ______ mg IVPB ___________________

*Avoid dimenhydrinate in patients 65 years of age or older due to increased risk of side effects including delirium. Suggest 25 mg for mild/moderate nausea, 50 mg for moderate/severe nausea.*

- [ ] dimenhydrinate 50 mg PO once
- [ ] dimenhydrinate 25 to 50 mg PO every 4 hours PRN for nausea/vomiting
- [ ] dimenhydrinate ______ mg PO ___________________

- [ ] dimenhydrinate 50 mg IV once
- [ ] dimenhydrinate 25 to 50 mg IV every 4 hours PRN for nausea/vomiting
- [ ] dimenhydrinate ______ mg IV ___________________

*4 mg starting dose recommended for IV ondansetron*

- [ ] ondansetron 4 mg IV once
- [ ] ondansetron 4 mg IV to be repeated once 30 minutes after first dose PRN for nausea/vomiting
- [ ] ondansetron 4 mg IV every 8 hours PRN for nausea/vomiting
- [ ] ondansetron ______ mg IV ___________________

- [ ] ondansetron tab 8 mg PO every 8 hours PRN for nausea/vomiting
- [ ] ondansetron tab ______ mg PO ___________________

*Due to high cost, recommend reserving ondansetron DISINTEGRATING tab for actively vomiting patients without an IV.*

- [ ] ondansetron DISINTEGRATING tab 8 mg PO every 8 hours PRN for nausea/vomiting
- [ ] ondansetron DISINTEGRATING tab ______ mg PO ___________________
Medications (continued)

Additional Migraine Headache Therapies (see Table 4)
- SUMAtriptan 50 mg PO once; may repeat in 2 hours (maximum 200 mg/24hrs)
- SUMAtriptan 6 mg SUBCUTANEOUSLY once; may repeat in 1 hour (maximum 12 mg/24 hours)
- dihydroergotamine 1 mg IV once (only beneficial if used for migraine headache in combination with metoclopramide). Contraindicated in hemiplegic or basilar migraine.

<table>
<thead>
<tr>
<th>Medications</th>
<th>Preferred</th>
<th>Initial</th>
<th>Refractory</th>
<th>Tension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migraine</td>
<td>metoclopramide</td>
<td>oxygen</td>
<td>octreotide</td>
<td>indomethacin</td>
</tr>
<tr>
<td></td>
<td>ketorolac</td>
<td>sumatriptan</td>
<td>lidocaine</td>
<td>NSAIDs</td>
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<tr>
<td></td>
<td>sumatriptan</td>
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<td></td>
<td>acetaminophen</td>
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<tr>
<td>Alternative</td>
<td>dihydroergotamine</td>
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<td></td>
<td>corticosteroids (see below for details)</td>
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<tr>
<td>Not Recommended</td>
<td>morphine / other opioids</td>
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<td>magnesium sulfate</td>
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<td></td>
<td>haloperidol</td>
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<td></td>
<td>propofol</td>
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<td>Cluster</td>
<td>Paroxysmal Hemicrania</td>
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<tr>
<td>Initial</td>
<td>oxygen</td>
<td>octreotide</td>
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<td></td>
<td>sumatriptan</td>
<td>lidocaine</td>
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<td>Refractory</td>
<td>octreotide</td>
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<td>lidocaine</td>
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<tr>
<td>Tension</td>
<td>NSAIDs</td>
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<td>acetaminophen</td>
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<td></td>
<td>acetaminophen</td>
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</table>

Dystonia Prophylaxis or Treatment

Prophylaxis may be considered when administering metoclopramide. However, clinical trials have failed to show a reduction in akathisia with this approach. Rate and route of administration are more likely to impact risk of developing akathisia – see Antiemetic section.

- diphenhydrAMINE 50 mg IV once
- benztropine 1 mg direct IV once

Corticosteroids

May be considered an adjunctive therapy to help reduce the rate of migraine headache recurrence. Corticosteroids are NOT considered effective in reducing acute migraine pain.

- dexamethasone 10 mg IV/IM once

<table>
<thead>
<tr>
<th>Prescriber Signature</th>
<th>Date (dd-Mon-yyyy)</th>
<th>Time (hh:mm)</th>
</tr>
</thead>
</table>
Medications (continued)

**Opiate Analgesia**

*Should NOT be considered first-line or routine therapy in primary headache disorders; generally not recommended in the treatment of migraine headache.*

For 'susceptible patients' defined as elderly, frail, low body mass, systemically unwell, or on medications known to cause sedation or lower blood pressure we recommend decreasing narcotic dosing by 50%.

- Contact physician or nurse practitioner for reassessment if pain not controlled after administration of maximum dosage.

**Oral**

- codeine 30 mg-acetaminophen 325 mg-caffeine 15 mg 2 tabs PO once
- codeine 30 mg-acetaminophen 325 mg-caffeine 15 mg 1 to 2 tabs PO every 4 hours PRN for pain
- codeine 30 mg-acetaminophen 325 mg-caffeine 15 mg _______ tabs PO ____________________

- oxyCODONE 5 mg-acetaminophen 325 mg 2 tabs PO once
- oxyCODONE 5 mg-acetaminophen 325 mg 1 to 2 tabs PO every 4 hours PRN for pain
- oxyCODONE 5 mg-acetaminophen 325 mg _______ tabs PO ____________________

- HYDROmorphine 1 mg PO once
- HYDROmorphine 1 to 2 mg PO every 4 hours PRN for pain
- HYDROmorphine _______ mg PO ____________________
  *Suggest 1 mg for moderate pain and 2 mg for severe pain*

**Parenteral**

- HYDROmorphine 1 mg IV once
- HYDROmorphine 0.5 to 1 mg every 10 minutes PRN for pain *(maximum 3 mg total)*
- HYDROmorphine _______ mg IV ____________________
  *Suggest 0.5 mg for moderate pain and 1 mg for severe pain*

- morphine 5 mg IV once
- morphine 2.5 to 5 mg IV every 10 minutes PRN for pain *(maximum 15 mg total)*
- morphine _______ mg IV ____________________
  *Suggest 2.5 mg for moderate pain and 5 mg for severe pain*

- fentaNYL 50 mcg IV once
- fentaNYL 25 to 50 mcg IV every 5 minutes PRN for pain *(maximum 200 mcg total)*
- fentaNYL _______ mcg IV ____________________
  *Suggest 25 mcg for moderate pain and 50 mcg for severe pain*
Emergency Department Primary Headache
Adult Order Set

Select orders by replacing a (✓) in the associated box

<table>
<thead>
<tr>
<th>Patient Care</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Monitoring</td>
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<td></td>
</tr>
<tr>
<td>☐ Vital Signs (respiratory rate, pulse, blood pressure, temperature, oxygen saturation)</td>
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<tr>
<td>These orders need to be re-evaluated when the patient stabilizes or by 2 hours, whichever occurs first.</td>
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<td>☐ as per provincial guideline</td>
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<td>☐ every ____ hour(s)</td>
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<tr>
<td>☐ every ____ minutes</td>
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<tr>
<td>☐ Continuous Cardiac Monitoring</td>
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<tr>
<td>Diet/Nutrition</td>
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<tr>
<td>☐ NPO</td>
<td>☐ NPO - may have sips, may take meds</td>
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<tr>
<td>☐ Clear Fluids</td>
<td>☐ Regular Diet</td>
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<td>☐ Other Diet</td>
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<tr>
<td>Other Orders</td>
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<tr>
<td>☐ Consult Neurology</td>
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<tr>
<td>☐ Consult Neurosurgery</td>
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</tr>
<tr>
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<td>Date (dd-Mon-yyyy)</td>
<td>Time (hh:mm)</td>
</tr>
</tbody>
</table>

Prescriber Signature: [Sign Here]
Date: [dd-Mon-yyyy]
Time: [hh:mm]