Acute Treatment Strategies

Content developed by:
Lawrence C. Newman, MD, FAHS
Donna Gutterman, PharmD

Faculty Disclosures

LAWRENCE C. NEWMAN, MD, FAHS
Dr. Newman has received consulting fees and/or honoraria from Allergan, Inc., Labrys Biologics, NuPathe, and Zogenix. Dr. Newman is on the speaker bureaus for Allergan, Inc. and Zogenix.

DONNA GUTTERMAN, PHARM.D
Dr. Gutterman has received consulting fees and/or honoraria from NuPathe, Teva Pharmaceuticals, Dr. Reddy Pharmaceuticals.

Learning Objectives

At the conclusion of this presentation, participants should be better able to:

- Identify comorbidities and exacerbating factors that might render acute therapies less efficacious
- Use MIDAS to assess the severity and impact of headache upon the patient
- Employ mTOQ to assesses if acute therapies need to be modified
- Design a treatment plan that is stratified to the individual patient’s treatment needs
Clinical Case Review: Carol

Carol 2013, Age 32

<table>
<thead>
<tr>
<th>Year</th>
<th>Headache Days</th>
<th>Nausea and Photophobia</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>2 severe</td>
<td>Nausea and Photophobia</td>
<td>Ibuprofen</td>
</tr>
<tr>
<td></td>
<td>12 severe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10–14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>10–14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 less</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>10 severe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 less</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 severe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 severe</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Acute Treatment ARS Question 1

Which of the following historical features should influence your acute treatment recommendations for Carol?

A. Allodynia  
B. Nausea  
C. Depression  
D. A and B  
E. All of the above
Assess Disability and Attack Characteristics

- MIDAS score = 84 (very severe disability)
- Diary may uncover triggers and under-reported headache attacks
- Nausea may influence treatment

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Assess disability and attack characteristics

1. Exclude secondary headaches
2. Identify primary headaches syndrome
3. Diagnose disorder in the episodic group
4. Recognize comorbidities and exacerbating factors
5. Assess disability and attack characteristics

MIDAS, nausea, allodynia, photo

Depression, pain, anxiety

Migraine without Aura
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Review Prior Treatments, Unmet Needs, and Treatment Goals

- 95% of migraineurs use acute treatment (Rx or OTC)
- Acute therapy decisions often involve switching treatment
- Poor treatment response often leads to initial/follow-up consultations

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Acute therapy decisions often involve switching treatment
Poor treatment response often leads to initial/follow-up consultations

1. Exclude secondary headaches
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Resume prior treatments, unmet needs, and treatment goals

Understanding unmet needs is key to improving treatment.

The Migraine Treatment Optimization Questionnaire (M-TOQ)

Helps clinicians determine which treatment needs are met and which are unmet

```
<table>
<thead>
<tr>
<th>Domain</th>
<th>Questions</th>
<th>Carol's responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional response</td>
<td>Are you able to quickly return to your normal activities after taking your migraine medication?</td>
<td>No</td>
</tr>
<tr>
<td>Consistency and onset</td>
<td>Can you count on your migraine medication to relieve your pain within 2 hours for most attacks?</td>
<td>No</td>
</tr>
<tr>
<td>Recurrence</td>
<td>Dose one dose of your migraine medication usually relieve your headache and keep it away for at least 24 hours?</td>
<td>No</td>
</tr>
<tr>
<td>Side effects</td>
<td>Is your migraine medication well-tolerated?</td>
<td>Yes</td>
</tr>
<tr>
<td>Global</td>
<td>Are you comfortable enough...to be able to plan your daily activities?</td>
<td>No</td>
</tr>
</tbody>
</table>
```

Carol’s Prior Treatments, Unmet Needs, and Treatment Goals

Prior treatments
• OTC: acetaminophen, ibuprofen
• Prescription: oral triptan, Fioricet

Unmet needs
• Functional response
• Rapid, consistent relief
• Low recurrence

Treatment goals
• Relieve pain
• Restore function
• Rapid, consistent relief

Formulate a Treatment Plan

1. Exclude secondary headache
2. Identify primary headache syndrome
3. Diagnose disorder in the syndromic group
4. Recognize comorbidities and exacerbating factors
5. Assess disability and attack characteristics
6. Review prior treatments, unmet needs, and treatment goals
7. Formulate a treatment plan

Carol’s Acute Treatment Plan

• Should account for:
  – Initial treatment
  – Second-line treatment
  – Rescue medication

• Consider:
  – Triptan for very severe disability (MIDAS=84)
  – Non-oral treatment for frequent nausea
Formulating an Acute Treatment Plan

<table>
<thead>
<tr>
<th>A. Same drug and route—use treatment differently</th>
</tr>
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<tbody>
<tr>
<td>B. Same drug, switch routes</td>
</tr>
<tr>
<td>C. Switch drugs</td>
</tr>
<tr>
<td>1. Within class</td>
</tr>
<tr>
<td>2. Among classes</td>
</tr>
<tr>
<td>D. Rationale polypharmacy/companion therapy</td>
</tr>
<tr>
<td>E. Address secondary treatment and rescue</td>
</tr>
<tr>
<td>F. Other modalities</td>
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Formulating an Acute Treatment Plan

<table>
<thead>
<tr>
<th>A. Same drug and route—use treatment differently</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Treat early with primary medication</td>
</tr>
<tr>
<td>- Improves onset and consistency of response</td>
</tr>
<tr>
<td>- Prevents disability and recurrence</td>
</tr>
<tr>
<td>- Reduces need for rescue</td>
</tr>
<tr>
<td>- May reduce risk of allodynia</td>
</tr>
<tr>
<td>• Optimize the dose for inconsistent response</td>
</tr>
<tr>
<td>• Provide advice on secondary treatment and rescue</td>
</tr>
<tr>
<td>- Secondary: recurrence</td>
</tr>
<tr>
<td>- Rescue: treatment failure</td>
</tr>
</tbody>
</table>

**Caution: Guard against overuse**

Formulating an Acute Treatment Plan

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<td>F. Other modalities</td>
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</tbody>
</table>
Formulating an Acute Treatment Plan

A. Same drug and route—use treatment differently
B. Same drug, switch routes
   • Optimize the route of administration for patients with:
     - Prominent nausea
     - Vomiting
     - Gastroparesis
     - Crash migraine
     - AM migraine
   • Consider non-oral therapy
     - Injections
     - Nasal spray
     - Suppository
     - Inhaler
     - Patch

When Allodynia and Nausea are Present

• May need treatments with a faster onset
• Circumvent the gut to minimize gastroparesis
  - Injectables
  - Nasal sprays (some)
  - Suppositories
  - Iontophoretic patches
  - Oral inhalers

When Allodynia and Nausea are Present

- Optimize benefits
- Minimize risk of MOH
Strategies Once on Triptans

A. Same drug and route—use treatment differently
B. Same drug, switch routes
C. Switch drugs
   1. Within class: triptans
      o Onset: rizatriptan or eletriptan
      o Recurrence: eletriptan or almotriptan
      o Tolerability: naratriptan or almotriptan
   2. Among classes
      o Failure of two or more trials of triptans
      o Consider other acute treatments—DHE, lidocaine nasal spray, dopamine blockers, fast NSAIDs

Addressing Unmet Needs: Acute Treatment Strategies

A. Same drug and route—use treatment differently
B. Same drug, switch routes
C. Switch drugs
   1. Within class
   2. Among classes
D. Rationale polypharmacy/companion therapy
E. Address secondary treatment and rescue
F. Other modalities

Choosing Acute Treatment

<table>
<thead>
<tr>
<th></th>
<th>First-line treatment, usually early in the attack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary acute</td>
<td></td>
</tr>
<tr>
<td>Secondary acute</td>
<td>Recurrence after an initial response</td>
</tr>
<tr>
<td>Rescue</td>
<td>Lack of response to primary or secondary treatment</td>
</tr>
</tbody>
</table>

Consider:
- Severity and degree of disability (stratified care)
- Age of headache onset
- Presence of nausea, vomiting, or gastroparesis
- Prior pattern of response
- Patient preference
Algorithm for Acute Treatment

![Algorithm for Acute Treatment](image)

Treatment Efficacy within the Class

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Primary Acute Treatment</th>
<th>Secondary Acute Treatment</th>
<th>Rescue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple OTCs</td>
<td>Yes</td>
<td>Yes</td>
<td>–</td>
</tr>
<tr>
<td>Rx NSAIDs</td>
<td>Yes</td>
<td>Yes</td>
<td>Ketorolac (parenteral)</td>
</tr>
<tr>
<td>Combination Analgesics</td>
<td>Rarely</td>
<td>Rarely</td>
<td>Rarely</td>
</tr>
<tr>
<td>Triptans</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>DHE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lidocaine NSI</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Muscle relaxant</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
</tr>
<tr>
<td>DA blockers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Corticosteroid</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
</tr>
<tr>
<td>Opioids</td>
<td>–</td>
<td>–</td>
<td>Rarely</td>
</tr>
</tbody>
</table>

Addressing Unmet Needs:
Acute Treatment Strategies for Carol

A. Same drug and route—use treatment differently
B. Same drug, switch routes
C. Switch the drug within the class
1. Optimize the agent within a class: **ibuprofen**
   - Onset: Already using prescription doses of ibuprofen (injectable ketoprofen, diclofenac oral solution)
   - Recurrence: Long half-life NSAIDs
   - Tolerability: Selective COX-2s
2. Switch class
   - From NSAIDs to triptans
   - Consider non-oral treatments
Primary Treatment:
sumatriptan 100 mg po
(early, no nausea)
sumatriptan 6 mg sc
(nausea or at least
moderate pain)

Acute Treatment ARS Question 2
What would you give for treatment of
recurrence (ie, after sumatriptan 100 mg po)?
A. Oral nonsteroidals
B. Injectable nonsteroidals (ketorolac)
C. Prochlorperazine (neuroleptic
suppositories)
D. A long-acting triptan (naratriptan or
frovatriptan)
E. Oral nsaid or repeat triptan

Treatment of Recurrence:
Repeat effective triptan
OR
naproxen 500mg
(2 tablets)
Case Review:
Acute Treatment Plan for Carol

Carol was diagnosed with episodic migraine without aura

• Primary Treatment
  – 100mg sumatriptan po
  – 6 mg sumatriptan sc
• Secondary Treatment—naproxen 500mg (2 tablets)
• Rescue Treatment—prochlorperazine suppository

What next?

Case Review:
Acute Treatment Plan for Carol

Patient education
Instructed Carol to:
• Treat early in the attack
• Keep headache and trigger diary
• Try relaxation technique
  – Yoga
  – Massage to reduce stress
• Encouraged to seek therapy for anxiety and depression

Follow-up in 12 weeks

Case Review:
Follow-up Plan for Carol

• Carol returned to the clinic 15 weeks later
• Headache frequency was about the same
• Treatments were really working
Case Review:
Follow-up Plan for Carol

- Carol returned to the clinic 15 weeks later
- Headache frequency was about the same
- Treatments were really working

Primary Treatment:
100 mg sumatriptan po or 6 mg SC
- Oral works best taken early
- Oral does not work if nausea is prominent
- SC first-line for prominent nausea moderate severe pain

Case Review:
Follow-up Plan for Carol

- Carol returned to the clinic 15 weeks later
- Headache frequency was about the same
- Treatments were really working

Secondary Treatment:
Repeat triptan, offer naproxen 500mg (2 tablets)
- Recurrence occurs about 30% of the time
- Much preferred over the rescue choice

Case Review:
Follow-up Plan for Carol

- Carol returned to the clinic 15 weeks later
- Headache frequency was about the same
- Treatments were really working

Rescue Treatment:
prochlorperazine suppository
- Needed twice
- Caused akathisia
- Instructed to use diphenhydramine (which had not been used) before using prochlorperazine suppositories
Case Review: Follow-up Plan for Carol

- Provided refills of her prescriptions
- Instructed to:
  - Limit naproxen to ≤2 doses/week
  - Seek counseling for depression and anxiety—3 recommendations provided
  - Encouraged to come to monthly support groups at clinic for female headache patients
  - Complete a daily headache diary
- Follow-up 12 weeks

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Case Review: Follow-up Plan for Carol

As we know... Carol was lost to follow-up after this

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Summary:
Key Steps to Successful Acute Treatment

1. Exclude secondary headache
2. Identify primary headache syndrome
3. Diagnose disorder in the syndromic group
4. Recognize comorbidities and exacerbating factors
5. Assess disability and attack characteristics
6. Review prior treatments, unmet needs, and treatment goals
7. Formulate a treatment plan