

Applying a Dental Pain Guideline in the ED

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Disclosures

Member of the Emergency Medicine Advisory Panel for the RESPITE Study, 2021 - present

Objectives

By the end of this session, the learner should be able to:

- Verbalize the impact of dental visits on emergency medicine
- Identify common etiologies of dental pain
- Appropriately apply a guideline for the pharmacological management of dental pain in the ED

Scope of the Problem



Every 15
Seconds a
patient comes
to the ED for
dental pain



2.1 Million ED
visits for
dental pain in
2017



70% of ED
visits for
dental pain
happen
outside
business hours



30% of ED
visits for
Dental pain
included an
opioid
prescription

Background

Who Wrote the Guideline?

- Funded by a grant from the Federal Drug Administration, the RESPITE study was conducted by the researchers from the American Dental Association Science and Research Institute, the University of Pittsburgh, the University of Pennsylvania, and McMaster University.

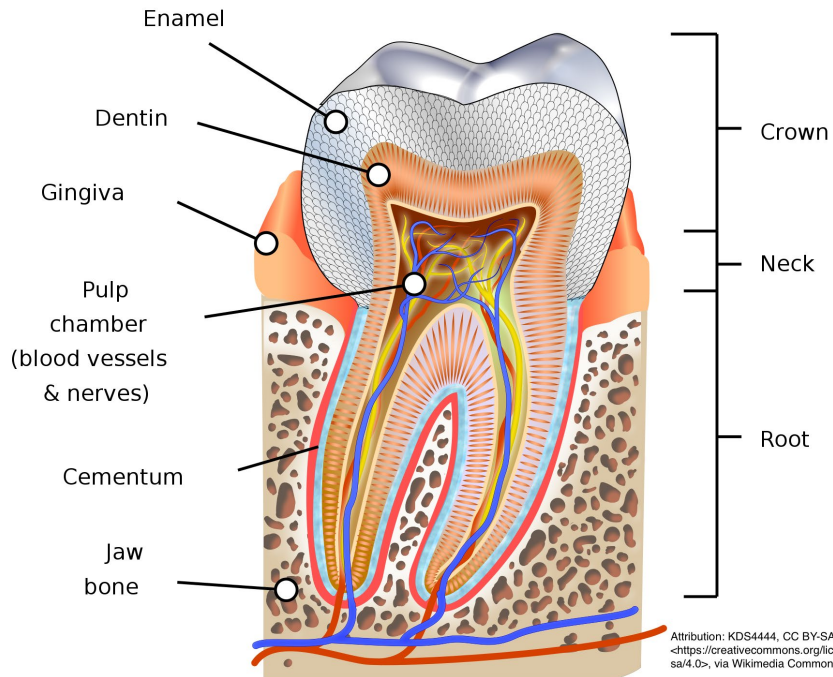
What Conditions?

- Toothache or post procedural pain.

What population does the guideline apply to?

- Adolescents (aged 12 - <17 years), adults (aged 17 - <65 years), and older adults (aged ≥ 65 years) experiencing acute dental pain after tooth extraction or associated with toothache.

Anatomy of A Tooth



Above the Gumline:

- Crown
 - Enamel
 - Dentin
 - Pulp Chamber

At The Gumline

- Neck
 - Enamel
 - Dentin
 - Pulp Chamber

Below The Gumline

- Root
 - Cementum
 - Alveolar (Jaw) Bone

Etiology of Dental Pain

- Traumatic
 - Tooth Fracture (Pulp exposure)
 - Tooth Subluxation
- Non-traumatic (Toothache)
 - Pulpitis
 - Pulpal necrosis
 - Apical abscess
- Post-procedure or Post-surgical
 - Root Canal
 - Simple extraction (Tooth Pulled)
 - Surgical Extraction

Guideline for Managing Acute Dental Pain

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management of toothache

Short-acting local anesthetics (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine,
4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

Are NSAIDs contraindicated⁸?

YES, CONTRA-INDICATED

NO

FIRST LINE

Acetaminophen at full therapeutic dose (e.g., 1,000 mg)

Option 1 NSAID alone (e.g., 400 mg ibuprofen or 440 mg naproxen sodium)

Option 2 Combination NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS acetaminophen (e.g., 500 mg)

FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

OR

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Opioids should be prescribed at the lowest effective dose, fewest tablets, and the shortest duration, which rarely exceeds three days. The routine use of delayed (i.e., "just-in-case" prescription for breakthrough pain) opioid prescriptions is NOT recommended. Use extreme CAUTION in adolescents³. High risk of misuse or substance use disorder. Caregiver consent is advised.

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ADD to the NSAID

REPLACE initial prescription

Extended⁹ temporary management¹ option

Supplemental local anesthetics⁹ (optional)
0.5% bupivacaine PLUS 1:200,000 epinephrine by block or infiltration injection
OR
4% articaine PLUS 1:100,000/1:200,000 epinephrine by infiltration injection

Short-term temporary management¹ option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management¹ option prior to definitive dental treatment

AND

Provision of prompt definitive dental treatment¹ via an immediate referral

Signs and Symptoms

TOOTHACHE

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull, and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or Fractured teeth

POSTOPERATIVE PAIN

- Persistent or increasing pain hours to days after extraction
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in mouth (dry socket)

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Post-visit pain control line of therapy?

FIRST LINE

Inadequate pain control when Option 1 used as First Line

ADD to the NSAID

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SECOND LINE

Inadequate when Option First

REPLA initial prescrip

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AND

Short-term temporary management¹ option

Topical anesthetic (optional)
 10% or 20% benzocaine

Shared decision making or additional temporary management¹ option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

- Implement temporary management of toothache
 - Immediate in-visit relief
 - Shared decision making
 - Definitive Treatment

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

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FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

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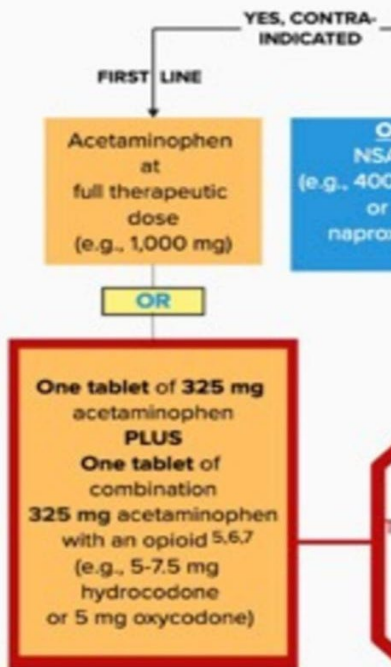
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Goal: Use shared decision making to offer additional temporary management option prior to definitive dental treatment

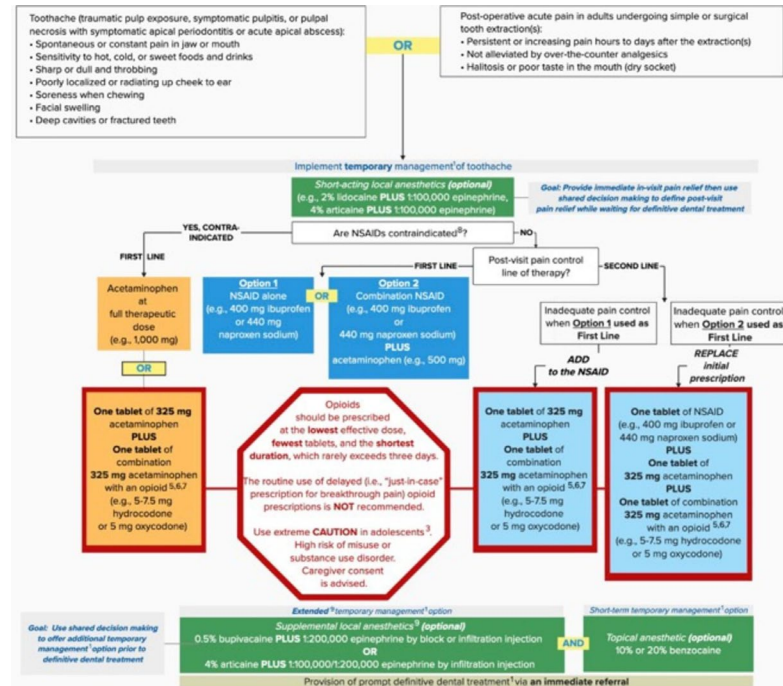
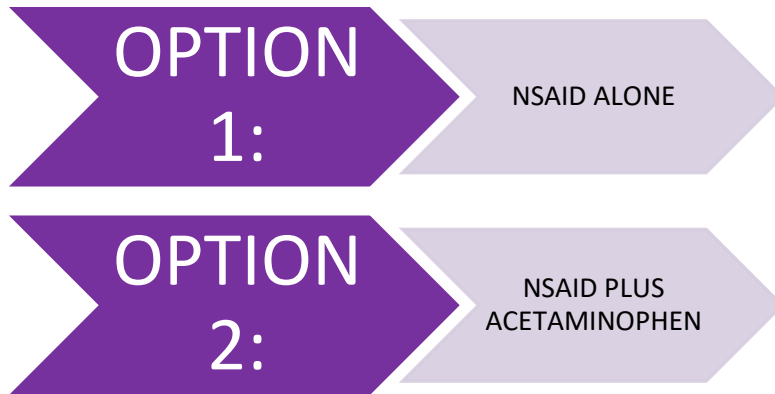
Provision of prompt definitive dental treatment¹ via an immediate referral

Are NSAIDs Contraindicated?



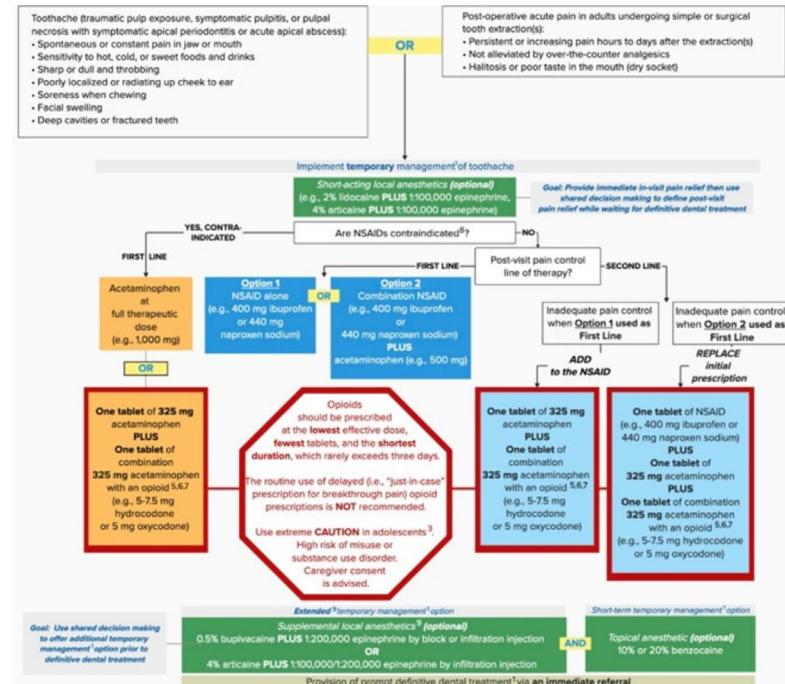
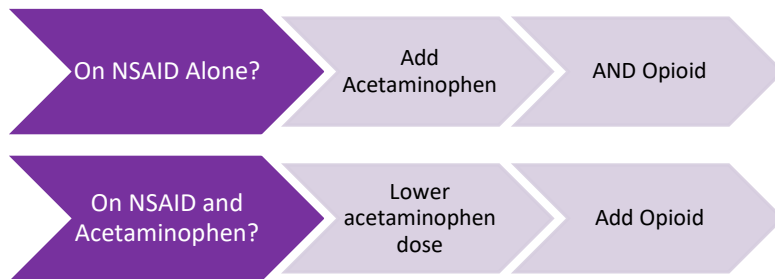
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FIRST LINE



NO NSAID CONTRAININDICATION

SECOND LINE



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Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
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- Halitosis or poor taste in the mouth (dry socket)

OR

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Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

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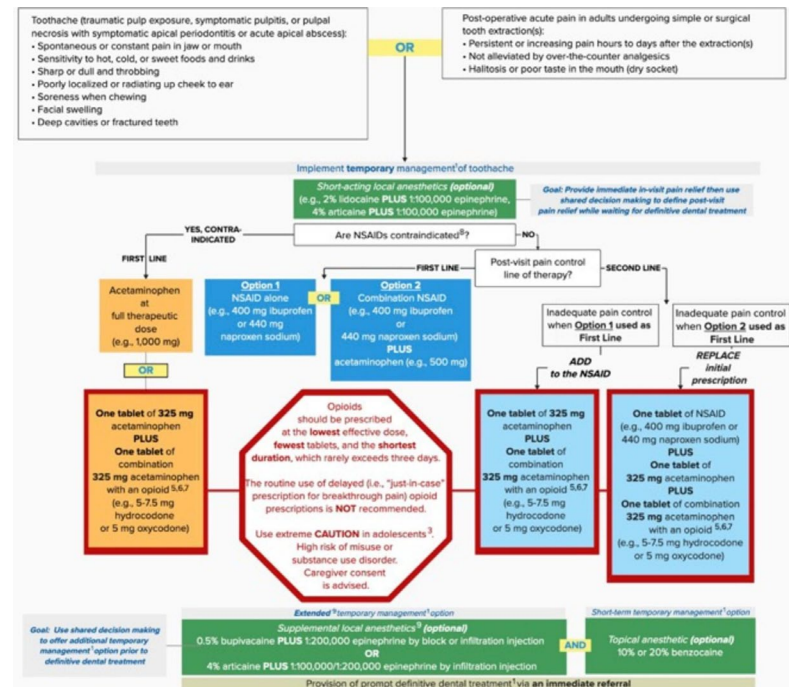
Adjuncts

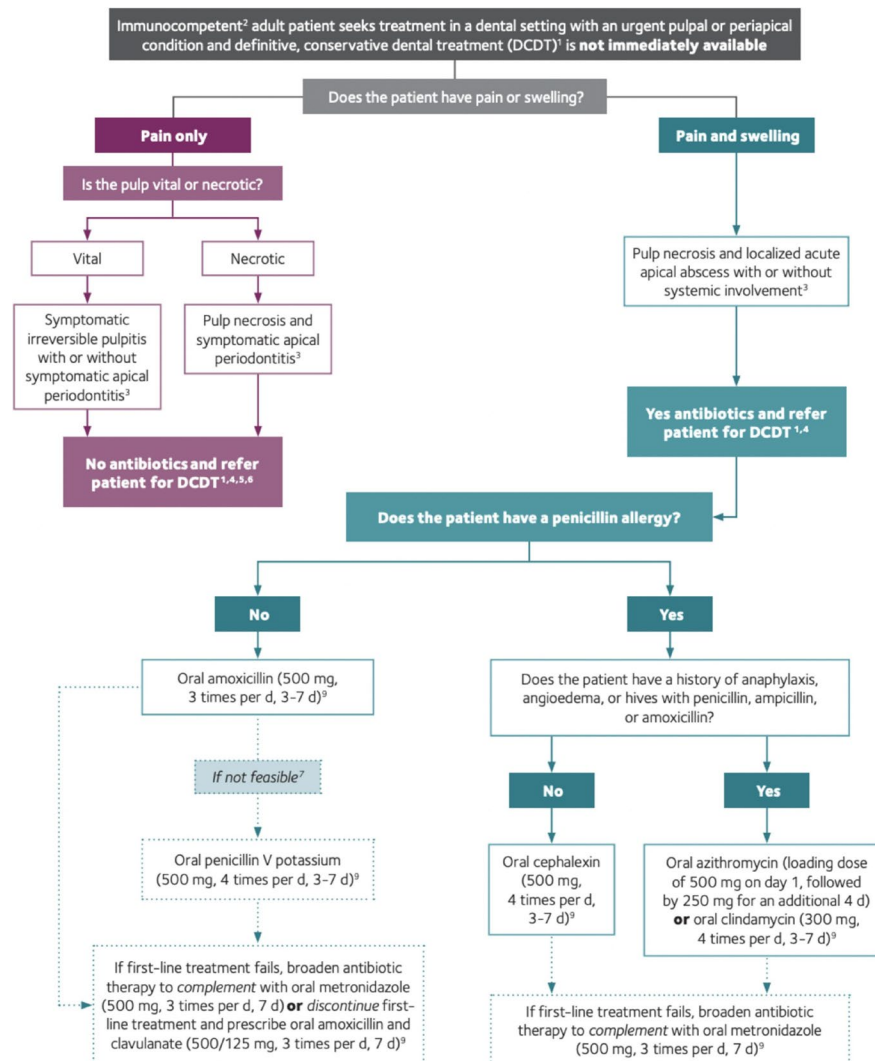
Local Anesthetic

- Dental block with bupivacaine

Topical Anesthetic

- Benzocaine





-
- Defer antibiotics
 - Treat pain per guideline

Pain Only?

- Oral Penicillin VK 500mg QID, X3-7 days
- Oral Cephalexin 500mg QID X 3-7 days
- Oral Azithromycin 500mg Day 1, 250 mg daily X 4 days
OR: Oral Clindamycin 300mg QID X3-7 days

Pain and Swelling?

Summary

Start with Tylenol and NSAIDs

Consider Adjunct pain control

Opioids should never be first line

Use shared decision making

Ensure patient can get definitive care

Case Studies

APPLYING THE GUIDELINE



Case #1

It's Friday night at 8:00pm in the ER.....

A 63 year old female presents with acute dental pain.

HPI:

- Tooth broke 2 weeks ago, started hurting last night
- Has appointment scheduled Tuesday with dentist
- Taking Tylenol at home, no longer helping

PMH: Afib, HTN, high cholesterol. Takes Eliquis, lisinopril, and lipitor

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management of toothache

Short-acting local anesthetics (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine,
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FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

ADD to the NSAID

REPLACE initial prescription

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OR
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Short-term temporary management¹ option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management¹ option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

Case #2

It's Friday night at 8:00pm in the ER.....

A 25 year old male presents with acute dental pain.

HPI:

- Tooth broke 2 weeks ago, started hurting last night
- Does not have a dental provider
- Tried saltwater rinses, orajel, and Goody Powder without relief

PMH: None

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management¹ of toothache

Short-acting local anesthetics⁹ (optional)
 (e.g., 2% lidocaine PLUS 1:100,000 epinephrine, 4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

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FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

ADD to the NSAID

REPLACE initial prescription

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Short-term temporary management¹ option

Topical anesthetic (optional)
 10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management¹ option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

Case #3

It's Friday night at 8:00pm in the ER.....

A 34 year old female presents with acute dental pain.

HPI:

- Tooth broke 2 weeks ago, started hurting last night
- Saw her dentist today, who pulled the tooth
- Dentist prescribed 600mg ibuprofen which she has been taking without relief.

PMH:

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
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- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management of toothache

Short-acting local anesthetics (optional)
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FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

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Inadequate pain control when Option 2 used as First Line

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Short-term temporary management option

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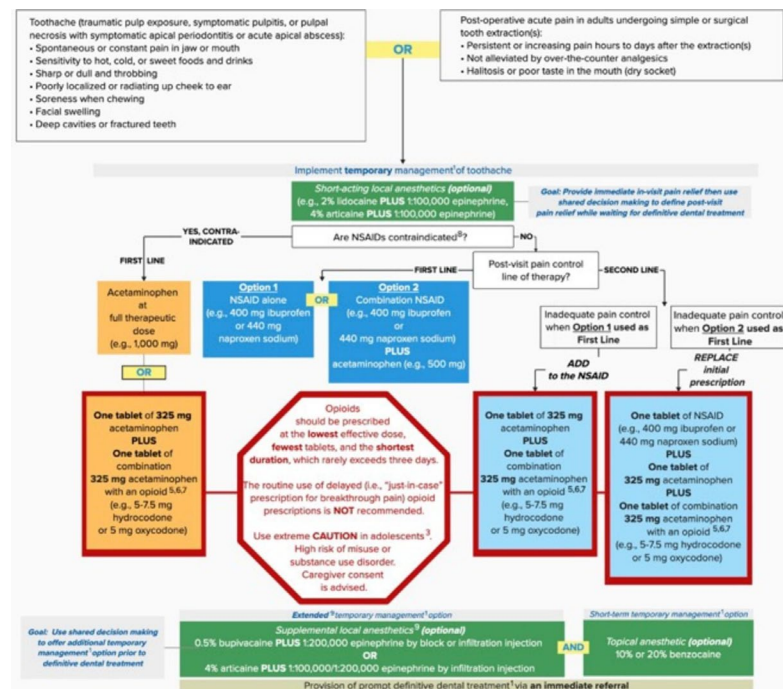
HPI:

- Tooth broke 2 weeks ago, started hurting last night
- Saw her dentist today, who pulled the tooth
- Dentist prescribed 600mg ibuprofen which she has been taking without relief.

PMH:

ROS:

PE:



Case #4

It's Friday night at 8:00pm in the ER.....

A 42 year old male presents with acute dental pain.

HPI:

- Tooth broke 2 weeks ago, started hurting last night
- No dental exam in years. No appointment scheduled.
- Noticed facial swelling today, with foul drainage in mouth.
- Taking Naproxen without relief.

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
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Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management¹ of toothache

Short-acting local anesthetics⁹ (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine, 4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

Are NSAIDs contraindicated⁸?

YES, CONTRA-INDICATED

NO

FIRST LINE

Acetaminophen at full therapeutic dose (e.g., 1,000 mg)

Option 1 NSAID alone (e.g., 400 mg ibuprofen or 440 mg naproxen sodium)

OR
Option 2 Combination NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS acetaminophen (e.g., 500 mg)

FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

ADD to the NSAID

REPLACE initial prescription

OR
One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Opioids should be prescribed at the lowest effective dose, fewest tablets, and the shortest duration, which rarely exceeds three days. The routine use of delayed (i.e., "just-in-case" prescription for breakthrough pain) opioid prescriptions is NOT recommended. Use extreme CAUTION in adolescents³. High risk of misuse or substance use disorder. Caregiver consent is advised.

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

One tablet of NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Extended⁹ temporary management¹ option

Supplemental local anesthetics⁹ (optional)
0.5% bupivacaine PLUS 1:200,000 epinephrine by block or infiltration injection
OR
4% articaine PLUS 1:100,000/1:200,000 epinephrine by infiltration injection

Short-term temporary management¹ option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management¹ option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

Case #5

Case 5:

It's Friday night at 8:00pm in the ER...

A 29-year-old male presents with acute dental pain.

HPI:

- Toothache started three days ago, progressively worsening
- Reports sensitivity to hot and cold drinks
- Has not seen a dentist in five years due to cost
- Using over-the-counter benzocaine gel with minimal relief

PMH: None

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management of toothache

Short-acting local anesthetics (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine,
4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

Are NSAIDs contraindicated⁸?

YES, CONTRA-INDICATED

NO

FIRST LINE

Acetaminophen at full therapeutic dose (e.g., 1,000 mg)

Option 1 NSAID alone (e.g., 400 mg ibuprofen or 440 mg naproxen sodium)

Option 2 Combination NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS acetaminophen (e.g., 500 mg)

FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

OR

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Opioids should be prescribed at the lowest effective dose, fewest tablets, and the shortest duration, which rarely exceeds three days. The routine use of delayed (i.e., "just-in-case") prescription for breakthrough pain) opioid prescriptions is NOT recommended. Use extreme CAUTION in adolescents³. High risk of misuse or substance use disorder. Caregiver consent is advised.

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

One tablet of NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

ADD to the NSAID

REPLACE initial prescription

Extended temporary management option

Supplemental local anesthetics⁹ (optional)
0.5% bupivacaine PLUS 1:200,000 epinephrine by block or infiltration injection
OR
4% articaine PLUS 1:100,000/1:200,000 epinephrine by infiltration injection

Short-term temporary management option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

Case 6:

It's Friday night at 8:00pm in the ER...

A 50-year-old female presents with acute dental pain.

HPI:

- Tooth pain started one week ago, now severe
- Developed mild swelling along her lower jaw today
- Has an appointment scheduled in one week but cannot tolerate the pain
- Taking hydrocodone from a prior injury, but it is not helping

PMH: Type 2 diabetes, hypertension

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management of toothache

Short-acting local anesthetics (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine, 4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

Are NSAIDs contraindicated⁸?

YES, CONTRA-INDICATED

NO

FIRST LINE

Acetaminophen at full therapeutic dose (e.g., 1,000 mg)

Option 1 NSAID alone (e.g., 400 mg ibuprofen or 440 mg naproxen sodium)

Option 2 Combination NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS acetaminophen (e.g., 500 mg)

FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

OR

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Opioids should be prescribed at the lowest effective dose, fewest tablets, and the shortest duration, which rarely exceeds three days. The routine use of delayed (i.e., "just-in-case" prescription for breakthrough pain) opioid prescriptions is NOT recommended. Use extreme CAUTION in adolescents³. High risk of misuse or substance use disorder. Caregiver consent is advised.

ADD to the NSAID
One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

REPLACE initial prescription
One tablet of NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Extended temporary management option

Supplemental local anesthetics⁹ (optional)
0.5% bupivacaine PLUS 1:200,000 epinephrine by block or infiltration injection OR 4% articaine PLUS 1:100,000/1:200,000 epinephrine by infiltration injection

Short-term temporary management option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

Case #7

t's Friday night at 8:00pm in the ER...

A 19-year-old male presents with acute dental pain.

HPI:

- Pain started yesterday after biting into hard food
- Reports bleeding from the gum near a broken molar
- No significant medical history
- Trying ice packs and acetaminophen without success

PMH: None

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management of toothache

Short-acting local anesthetics (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine, 4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

Are NSAIDs contraindicated⁸?

YES, CONTRA-INDICATED

NO

FIRST LINE

Acetaminophen at full therapeutic dose (e.g., 1,000 mg)

Option 1 NSAID alone (e.g., 400 mg ibuprofen or 440 mg naproxen sodium)

Option 2 Combination NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS acetaminophen (e.g., 500 mg)

FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

ADD to the NSAID

REPLACE initial prescription

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Opioids should be prescribed at the lowest effective dose, fewest tablets, and the shortest duration, which rarely exceeds three days. The routine use of delayed (i.e., "just-in-case") prescription for breakthrough pain) opioid prescriptions is NOT recommended. Use extreme CAUTION in adolescents³. High risk of misuse or substance use disorder. Caregiver consent is advised.

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

One tablet of NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Extended temporary management option

Supplemental local anesthetics⁹ (optional)
0.5% bupivacaine PLUS 1:200,000 epinephrine by block or infiltration injection OR 4% articaine PLUS 1:100,000/1:200,000 epinephrine by infiltration injection

Short-term temporary management option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

Case #8

It's Friday night at 8:00pm in the ER...

A 58-year-old female presents with acute dental pain.

HPI:

- History of multiple dental abscesses in the past
- Reports worsening pain and fever since this morning
- Noticed redness and warmth over the affected cheek
- Currently on prednisone for rheumatoid arthritis

PMH: Rheumatoid arthritis, chronic kidney disease

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management of toothache

Short-acting local anesthetics (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine,
4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

Are NSAIDs contraindicated⁸?

YES, CONTRA-INDICATED

NO

FIRST LINE

Acetaminophen at full therapeutic dose (e.g., 1,000 mg)

Option 1 NSAID alone (e.g., 400 mg ibuprofen or 440 mg naproxen sodium)

Option 2 Combination NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS acetaminophen (e.g., 500 mg)

FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

OR

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Opioids should be prescribed at the lowest effective dose, fewest tablets, and the shortest duration, which rarely exceeds three days. The routine use of delayed (i.e., "just-in-case" prescription for breakthrough pain) opioid prescriptions is NOT recommended. Use extreme CAUTION in adolescents³. High risk of misuse or substance use disorder. Caregiver consent is advised.

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

One tablet of NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

ADD to the NSAID

REPLACE initial prescription

Extended⁹ temporary management¹ option

Supplemental local anesthetics⁹ (optional)
0.5% bupivacaine PLUS 1:200,000 epinephrine by block or infiltration injection
OR
4% articaine PLUS 1:100,000/1:200,000 epinephrine by infiltration injection

Short-term temporary management¹ option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management¹ option prior to definitive dental treatment

AND

Provision of prompt definitive dental treatment¹ via an immediate referral

Case #9

A 70-year-old female presents with acute dental pain.

HPI:

- Recently had a root canal two weeks ago, now experiencing throbbing pain
- Reports earache and mild fever
- Using warm saltwater rinses with mild relief

PMH: Osteoporosis, on bisphosphonates

ROS:

PE:

Toothache (traumatic pulp exposure, symptomatic pulpitis, or pulpal necrosis with symptomatic apical periodontitis or acute apical abscess):

- Spontaneous or constant pain in jaw or mouth
- Sensitivity to hot, cold, or sweet foods and drinks
- Sharp or dull and throbbing
- Poorly localized or radiating up cheek to ear
- Soreness when chewing
- Facial swelling
- Deep cavities or fractured teeth

Post-operative acute pain in adults undergoing simple or surgical tooth extraction(s):

- Persistent or increasing pain hours to days after the extraction(s)
- Not alleviated by over-the-counter analgesics
- Halitosis or poor taste in the mouth (dry socket)

OR

Implement temporary management¹ of toothache

Short-acting local anesthetics (optional)
(e.g., 2% lidocaine PLUS 1:100,000 epinephrine,
4% articaine PLUS 1:100,000 epinephrine)

Goal: Provide immediate in-visit pain relief then use shared decision making to define post-visit pain relief while waiting for definitive dental treatment

Are NSAIDs contraindicated⁸?

YES, CONTRA-INDICATED

NO

FIRST LINE

Acetaminophen at full therapeutic dose (e.g., 1,000 mg)

Option 1 NSAID alone (e.g., 400 mg ibuprofen or 440 mg naproxen sodium)

Option 2 Combination NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS acetaminophen (e.g., 500 mg)

FIRST LINE

Post-visit pain control line of therapy?

SECOND LINE

Inadequate pain control when Option 1 used as First Line

Inadequate pain control when Option 2 used as First Line

OR

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

Opioids should be prescribed at the lowest effective dose, fewest tablets, and the shortest duration, which rarely exceeds three days. The routine use of delayed (i.e., "just-in-case") prescription for breakthrough pain) opioid prescriptions is NOT recommended. Use extreme CAUTION in adolescents³. High risk of misuse or substance use disorder. Caregiver consent is advised.

One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

One tablet of NSAID (e.g., 400 mg ibuprofen or 440 mg naproxen sodium) PLUS One tablet of 325 mg acetaminophen PLUS One tablet of combination 325 mg acetaminophen with an opioid^{5,6,7} (e.g., 5-7.5 mg hydrocodone or 5 mg oxycodone)

ADD to the NSAID

REPLACE initial prescription

Extended⁹ temporary management¹ option

Supplemental local anesthetics⁹ (optional)
0.5% bupivacaine PLUS 1:200,000 epinephrine by block or infiltration injection
OR
4% articaine PLUS 1:100,000/1:200,000 epinephrine by infiltration injection

Short-term temporary management¹ option

Topical anesthetic (optional)
10% or 20% benzocaine

Goal: Use shared decision making to offer additional temporary management¹ option prior to definitive dental treatment

Provision of prompt definitive dental treatment¹ via an immediate referral

Case #10

It's Friday night at 8:00pm in the ER...

A 36-year-old male presents with acute dental pain.

HPI:

- Reports severe pain in lower right molar
- States he was seen at a free dental clinic last month, advised to extract the tooth but couldn't afford it
- Reports difficulty swallowing due to increasing swelling
- Has been using clove oil and ibuprofen without relief

PMH: None

ROS:

PE:



Thank you

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