HURTIN' FOR CERTAIN

Pain Management in EMS

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Pain…

- Most common complaint
- Most common reason patients visit a physician
- 64 million suffer from trauma-related pain each year
- Most common reason for ambulance dispatch

Definition

- A sensory or emotional process associated with tissue damage.
- Acute pain alerts the patient to the presence of harmful or potentially harmful stimuli.

Ohio Study

- 1,073 patients with suspected extremity fractures:
  - IV: 9.4%
  - 17%: Ice packs
  - 16%: Bandage or dressing
  - 25%: Air splint
  - 19%: Fully immobilized
  - Analgesics: Given to only 8 patients!

North Ambulance Statistics

- Management of patient's pain:
  - QA Indicators: 84% satisfaction
    - How well following own protocols?
    - Number of sentinel events.
    - Receiving hospital feedback.
  - Patient surveys: 56% satisfaction
    - Marked difference between protocol and patient perception.
    - What were patient expectations?

Areas of discrepancy

- Paramedics perception of patient distress.
- Patient's perception of pain and treatment.
- Alternative and adjunctive treatment options.
- Pain management "Pyramid".
- Amount and dosage intervals of meds.
- Order of medication usage.

Re-educating providers and patients

- Asking the right questions (OPQRST)
- "Myth busting"
- "I know you're in pain but…"
- Integrated pain relief management
- Pain meds: "Too little, too late?"
- Getting the sequence right

Asking the right questions

- Onset/Origin
- Provokes
- Quality
- Referred/Region
- Severity
- Time

Assessing the Pain: Pain Scales

- Greatest value not in the number itself....

... But in the *change with treatment!*

Goal:

Bring the level of perceived pain down

Assessing the Pain: Pain Scales

- A two point change is significant, but

  A 50% reduction is a reasonable goal.

(Bring an "8" down to a "4" in 20-30 minutes)

Myth Busting

- Have the proper attitude!
  - Do not judge.
  - What might be painful to them might not be for you or others.

Myth Busting

Myth #1

- Patients don't know what real pain is.
  - Commit yourself to bringing the number down.
    - ??: How do you handle someone who says their pain is a "12" out of 10?

Myth Busting

Myth #2

- I'm only an EMT and can't do anything about pain.
  - Most pain control is provided by non-pharmacological means.
    - Splint, bandage, stabilize
    - COLD partially deactivates nociceptors
      - Remember? Decreased pain = decreased epinephrine release = decreased swelling by less fluid loss at site.

Myth Busting

Myth #3

- It can wait until we get to the ER.
  - Patient's ER wait may be long
  - Diagnostic studies take extra time
  - Patient receives analgesics up to 2 hours sooner if given in prehospital setting.
    - Early pain management has a *direct* effect on long-term outcome.
    - *NO pain medication works instantaneously!*

Myth Busting

Myth #4

- Pain medication will mask their symptoms and interfere with the physical exam.
  - Visceral pain:
    - ***Will still have sufficient physical findings to allow proper diagnosis.***

??: What would you rather do?

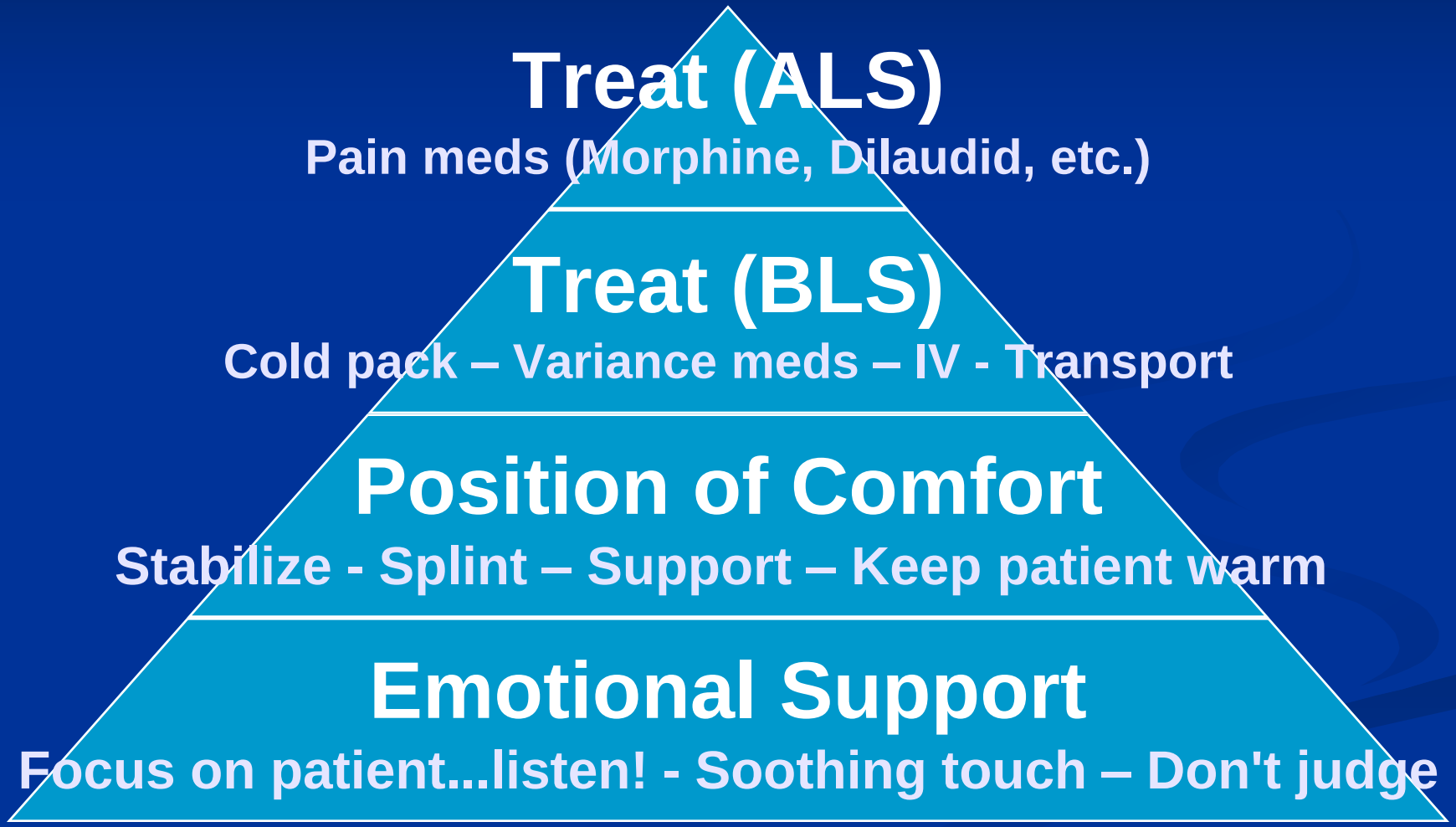
Assess a cooperative patient or a patient who cannot cope with the pain?

Myth Busting

Myth #5

- If I give a narcotic, they won't be able to consent for treatment.
  - Withholding analgesics to obtain consent is unethical.
    - Informed consent for treatment
    - Make them comfortable, not impaired!

Integrated levels of Pain Management



Adjunctive Treatment

Treat the mind

- Treating pain includes the ability to alter the psychological effect pain has on the patient.
  - Acknowledge that you understand they're in pain and that you'll do something about it as soon as you make sure nothing more serious is going on.

Adjunctive Treatment

Treat the wound

- Immobilize/splint/bandage/cold
  - Backboard → Support lumbar spine
  - Pad rigid splints at pressure points
  - Go slowly with the patient (if no immediate life threats)
    - Gentle handling
      - Raise cot gently
      - Mind your driving!

A quiet ride reduces anxiety

Less anxiety = less pain!

Adjunctive Treatment

Use cold packs

- ***Only 3 °C temp decrease needed to have effect***
- Constricts blood supply
- Reduces pain by decreasing swelling
- Reduces production of *leukotrienes* that stimulate inflammation response
- Stimulate opioid receptors → localized "narcotic" numbing

Chemical Treatment

Morphine (max 20 mg)

- *Advantages*
  - Rapid onset
  - Moderate duration
- *Disadvantages*
  - Resp depression
  - Nausea/vomiting
  - Release histamine

Dilaudid (max 2 mg)

- *Advantages*
  - Rapid onset
  - Long duration
  - Less nausea/vomiting
- *Disadvantages*
  - Resp depression at high dosages

Dosing Guidelines

- Morphine
  - Binds to opiate receptors
  - Alters perception and emotional response to pain
    - O.1-0.2 mg/Kg titrated to effect (maximum of 10 mg initial dose)
    - Adjust dosing for patient's size, weight, and age
    - Push S L O W L Y !

Dosing Guidelines

- Dilaudid
  - Binds to opiate receptors
  - Alters perception and emotional response to pain
    - 0.01-0.02 mg/Kg titrate to effect
      - Typical dose 1-2 mg
    - Maximum 2 mg without verbal orders

Medical Guidelines

- Assess pain on 1-10 scale
- Ask if patient wants something for pain
- State to patient that goal is to give relief, not to totally eliminate pain.
- Morphine 0.1 – 0.2 mg/Kg up to 10 mg IV/IO/IM (titrate to patient response)
  - OR Dilaudid 1-2 mg IV/IO/IM
  - Titrate to patient response
    - Max dose 2 mg

Medical Guidelines

- Caution in elderly or patient impaired by drugs or alcohol.
- Reassess pain scale.
  - Additional morphine 0.1 – 0.2 mg/Kg up to 10 mg IV/IO/IM every 10-15 minutes as needed for continued pain.
  - Titrate to patient response

Medical Guidelines

- If pain relief inadequate 5 minutes after maximum dose:
  - Consider:
    - Versed 2-5 mg IV/IO/IM

      OR
    - Ativan 1 mg IV/IO/IM
    - Monitor VS

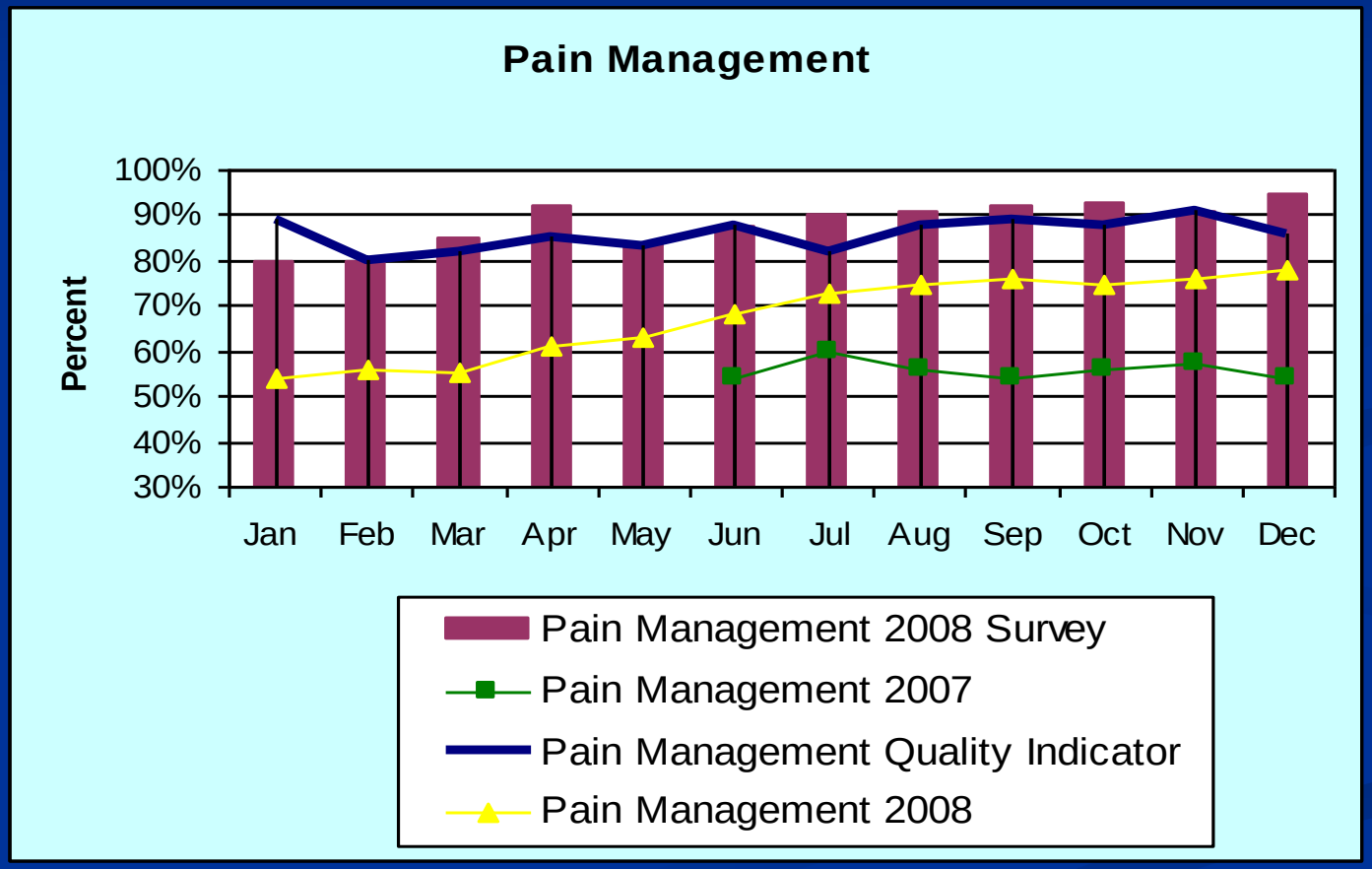
Medical Guidelines

- If respiratory depression or hypotension occurs:
  - Ventilate patient
  - Give Narcan 0.4-2.0 mg IV/IO/IM/IN and contact Medical Control

Medical Guidelines

- Contact Medical Control for orders if:
  - Patient has SBP $\leq$ 90
  - If further Dilaudid is required
  - Physician may consider initial or additional pain meds and benzodiazepines as appropriate.

How did we do?


Pain Management
Percent
100%
90%
80%
70%
60%
50%
40%
30%
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Pain Management 2008 Survey
Pain Management 2007
Pain Management Quality Indicator
Pain Management 2008

QUESTIONS

- Lecture produced in conjunction with:
  - Jon Hedger, BS, EMT-P

    Resource Educator,

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