Christopher B. Colwell, MD, FACEP Denver Paramedic Division and Denver Fire Department

OH, WHAT A RELIEF IT IS! REVISITING PAIN MEDICATION USE IN EMS

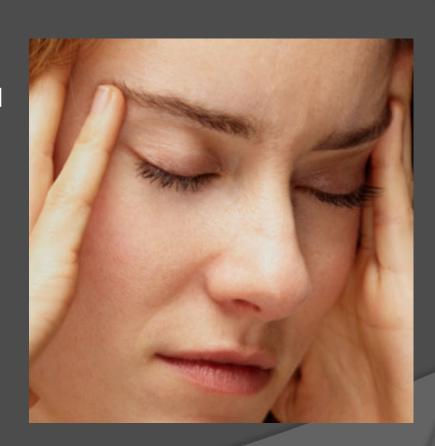
Treating Pain

- "Care more for the individual patient than for the special features of the disease"
 - William Osler, 1899



Why Treat Pain?

- Safe relief of suffering is our job
 - "The safety issue should neither be forgotten nor unreasonably applied"
 - Thomas et al, J Emerg Med 2008
- Pain is physiologically bad
 - Anxiety
 - Immune system
 - Wound healing



Benefits of Treating Pain

- Patient satisfaction
 - McEachin et al,
 Prehosp Emerg Care
 2004
- "Up-triage" on arrival to the <u>ED</u>
 - Vassiliadis et al,
 Emerg Med 2002



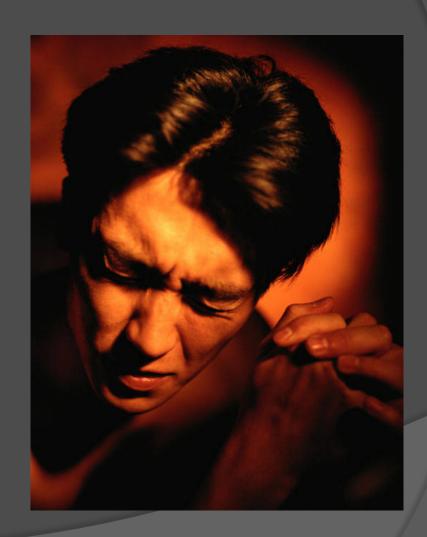


Why Treat Pain?



Pain Control

- Most common
 - Complaint
 - Reason for seeking medical attention
 - Up to 70%
 - Reason for dispatching an ambulance

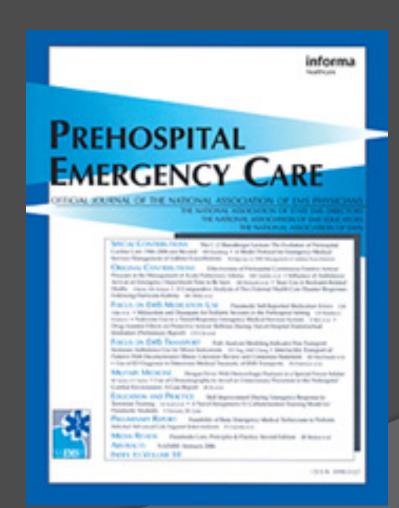


Pain Control

- The studies
 - We are not as good as we could be
 - Berben et al, Injury 2011
 - McManus et al, Emerg Med Clin N Am 2005
 - Turturro, Prehosp Emerg Care 2002
 - Fullerton-Gleason et al, Prehosp Emerg Care 2002
 - Oligo-evidence for oligo-analgesia
 - Still room for improvement
 - Steven Green, Ann Emerg Med 2012 (August)

Pain Control

- The studies
 - Still a number of modifiable barriers to appropriate pain management in the field
 - Walsh et al, Prehosp Emerg Care 2013



Pain Myths

- "It can wait"
 - No!
 - Waiting until the patient gets to the ED can result in a 2 hour delay in treatment
 - And that is IF the ED has its act together
 - Abbuhl et al, Prehosp Emerg Care 2003
 - Higher overall doses when started in the field
 - Vassiliadis et al, Emerg Med 2002

Pain Myths

- It isn't safe
 - Side effects (hypotension, respiratory depression)
 - o It is!
 - Barber et al, Pediatr Emerg Care 2004
 - Kanowitz et al, Prehosp Emerg Care 2006
 - Krauss et al, Acad Emerg Med 2007

Barriers

- Paramedics perception of pain
 - We underestimate pain
 - Turturro et al, Prehosp Emerg Care 2002
 - Walsh et al, Prehosp Emerg Care 2013
 - Perception of distress
 - Tachycardia?
 - Vital signs unreliable in estimating pain severity
 - Lord et al, Emerg
 Med J 2011



Pain Management

- Masking symptoms
 - Can't evaluate
 - Not true!
 - Alonso-Serra et al,
 Prehosp Care 2003
 - Ranji et al, JAMA2006
 - Can't consent
 - They can!
 - Gabbay et al,Prehosp Emerg Care2001
 - ED will get mad



Pain Management

- Abdominal pain?
 - Yes!
 - Thomas et al, J Am Coll Surg 2003
 - Gallagher et al, Ann Emerg Med 2006
- Trauma patients?
 - Yes!
 - Soriya et al, J Trauma 2012

Pain Management

- Be careful
 - Elderly
 - But still give it
 - Platts-Mills et al, Ann Emerg Med 2012
 - Cinar et al, Ann Emerg Med 2012
 - Altered
 - Drugs/alcohol
 - Trauma
 - Other



Options

- IV
 - Fentanyl
 - 1-3 ug/kg
 - Typical dose 100 ug
 - Morphine
 - 0.1 mg/kg
 - Typical dose 5-10 mg
 - Hydromorphone
 - 0.015 mg/kg
 - Typical dose 1-2 mg



Options

- Intranasal
 - Fentanyl
 - 2-4 mcg/kg
 - Max is 1 cc/nostril
 - Concentration is 50 mcg/cc
 - Midazolam
 - \circ 0.2 0.4 mg/kg
 - Concentration is 5mg/cc
- Rule of thumb, double the dose for IN

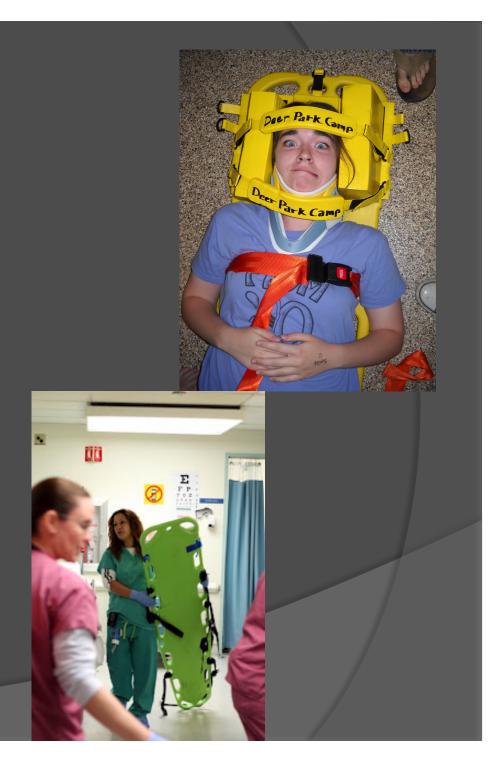




Options

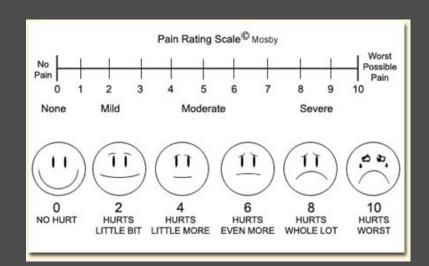
- Non-pharmacologic
 - Splinting
 - Bandages
 - Ice
 - Position of comfort
 - Get rid of back boards!





Techniques

- Pain scales
 - Silka et al, Acad Emerg Med 2004
- Standard protocols
 - Standing orders
 - Fullerton-Gleason et al, Prehosp Emerg Care 2002
- Trauma training
 - Bowman et al, J Trauma 2012
- CMS mandates?



Diversion

- Significant issue in all areas of medicine
- Have a clear process of how you handle narcotics
 - Usage tracking
 - Wasting



Drug Seeking?

- Narcotic seeking
 - Differentiating acute from chronic pain
 - Overly concerned with "drug-seeking"
 - Even in pediatric patients
 - Hennes et al, Prehosp Emerg Care 2005
- Addiction
 - Big issue nationally
 - Not in the back of an ambulance
 - Rupp et al, Ann Emerg Med 2004

Summary

- Pain management is important
- Still significant barriers
- Make it the culture
 - It will become the norm
- More attention in this area will result in better care
- At the end of the day....

