Importance of Pain Management in Pediatrics

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Introduction

Pain is one of the most distressing symptoms in children

Historically underestimated and undertreated

Ethical obligation to provide effective pain relief

Myths & Misconceptions

"Children feel less pain than adults"

"Infants won't remember painful experiences"

"Pain medications are unsafe for children"

- All proven false

Why Pain Management Matters

Untreated pain leads to:

- Physiological stress responses
- Altered neurodevelopment
- Increased anxiety and fear of healthcare
- Risk of chronic pain syndromes

Epidemiology of Pediatric Pain

- Procedural pain (vaccination, venipuncture, lumbar puncture)
- Post-operative pain
- Trauma-related pain
- Chronic pain (oncology, neurology, rheumatology)

Neurobiology of Pain in Children

Neonates and infants have well-developed nociceptive pathways

Immature inhibitory pathways → heightened pain sensitivity

Pain experiences shape future pain perception

Developmental Considerations

- Infants: Non-verbal, rely on behavioral and physiologic cues
- Toddlers: Fear and anxiety dominate
- School-age: Can verbalize, need reassurance
- Adolescents: Often under-report pain

Pain Assessment Tools

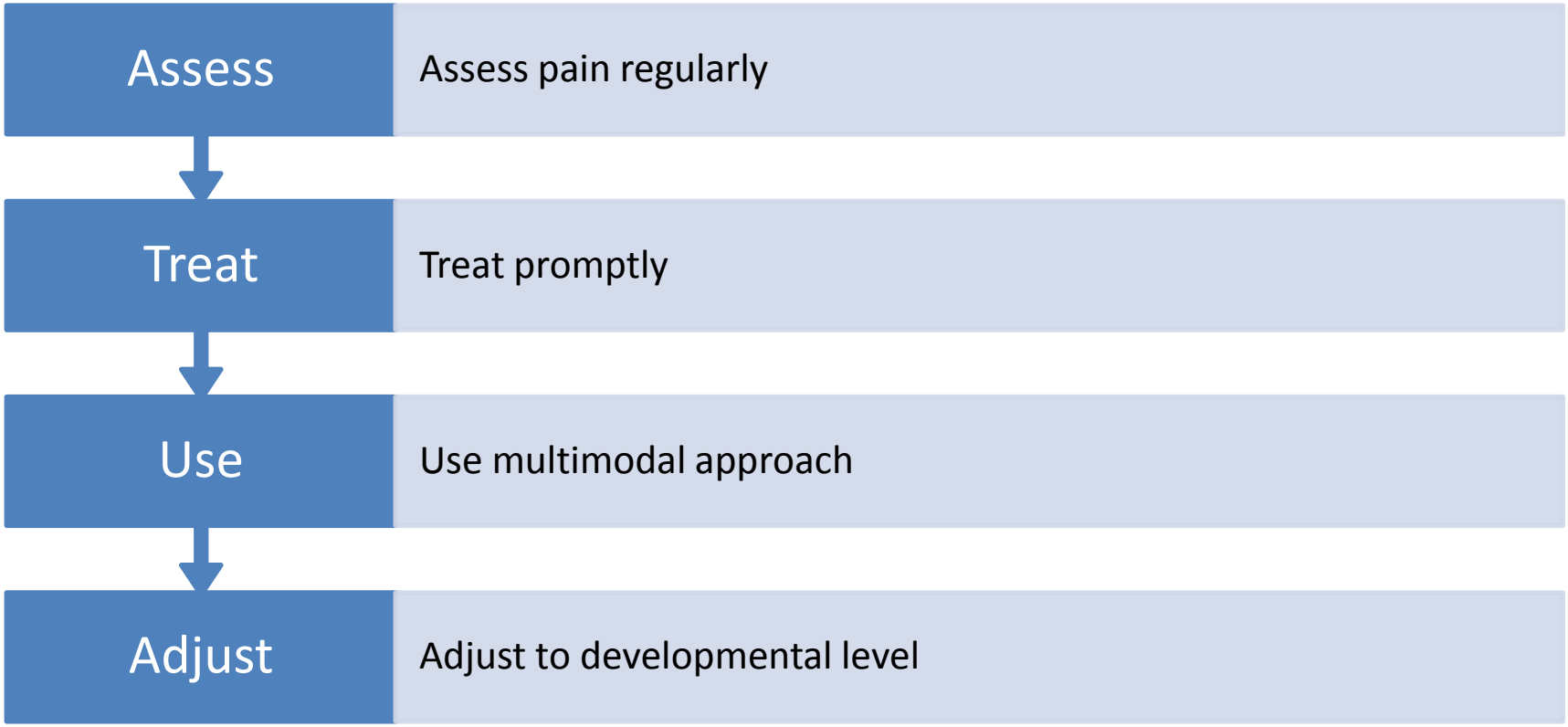
FLACC scale (Face, Legs, Activity, Cry, Consolability)

Wong-Baker FACES scale

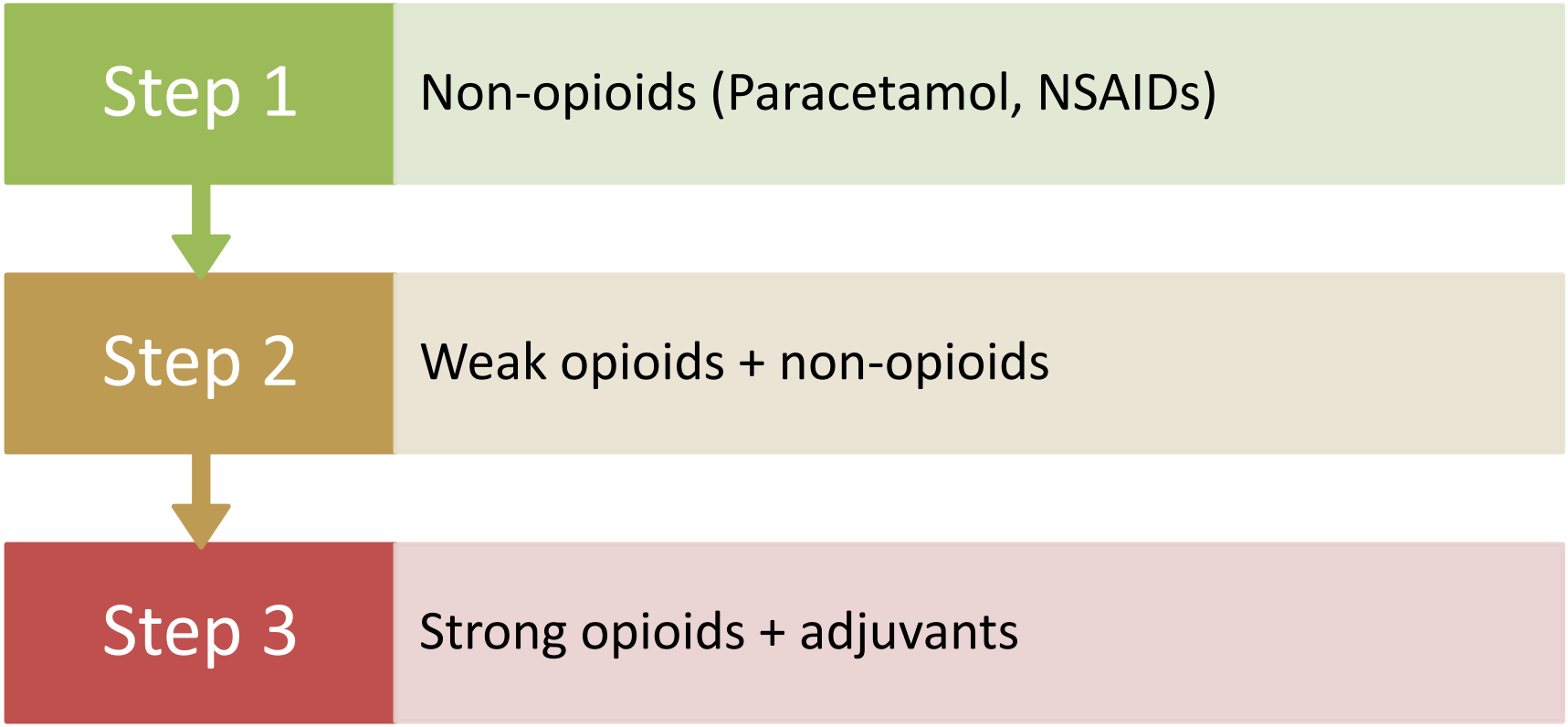
Numeric Rating Scale (NRS)

Importance of parental and caregiver input

Principles of Management



WHO Analgesic Ladder for Children



Pharmacological Approaches

Non-opioids: Acetaminophen, Ibuprofen

Opioids: Morphine, Fentanyl (safe when monitored)

Adjuvants: Gabapentin, TCAs for neuropathic pain

Non-Pharmacological Methods

- Distraction (toys, music, storytelling)
- Play therapy
- Relaxation, breathing exercises
- Physical measures: swaddling, massage, heat/cold packs

Neonatal Pain Management

1

Common painful procedures: heel sticks, intubation

2

Use sucrose, breastfeeding, kangaroo care

3

Avoid repeated untreated procedures

Chronic Pain in Pediatrics

Cancer-related pain

Sickle cell crises

Neuropathic pain (post-injury, epilepsy syndromes)

Requires multidisciplinary care

Palliative and End-of-Life Care

- Goal: Comfort and dignity
- Opioids are essential and safe
- Family-centered care

Barriers to Adequate Pain Management

- Misconceptions about children's pain
- Fear of opioid side effects and addiction
- Limited access to pediatric formulations
- Lack of training in pediatric pain management

Ethical Perspective

Pain relief is a fundamental human right

International guidelines: WHO, IASP, AAP

Legal implications of untreated pain

Case Example

8-year-old with appendectomy

Pain underestimated, delayed analgesia

Result: anxiety, prolonged recovery

Clinical Pearls

Key Takeaways

Pain in children is real and significant

Untreated pain has lifelong consequences

Every child deserves optimal pain management

A multimodal and multidisciplinary approach is best

Conclusion

Relieving pain in children = Medical duty + Moral imperative

"No child should suffer needlessly from pain"

References

WHO Guidelines on Pediatric Pain Management

AAP Clinical Report on Pain Management in Infants and Children

IASP Pediatric Pain Special Interest Group