GUIDELINES FOR THE PAEDIATRIC ACUTE PAIN SERVICE (APS)

APS GOALS:

- To provide safe & effective analgesia for children of all ages,
- Disease & risk profiles irrespective of causality (eg Surgery/Procedures, Pathology, Burns, Trauma, Therapy etc).
- To optimise analgesic prescriptions & implement specialized pain control methods to suit the individual's needs & pain profile.
- To provide 24/7 consultation services for Paediatric Pain Control, to co-ordinate care & facilitate admission to our APS when indicated.
- To ensure that our patients continue to receive adequate pain control right up to the day after discharge from the APS & at times, hospital.
- To continually audit, review & improve our analgesic practice.
- To educate staff & parents on how to optimize pain control.
- To promote good pain culture & holistic care.
- To encourage & champion every patient's right to optimum pain relief.

TRAINING OBJECTIVES:

Practical knowledge about Paediatric Pain, its Assessment & Control

- How pain in children differs from adults (strong emotional & psycho-social component); Barriers to effective pain management; The approach (enlist the main care-giver).
- Pain in early childhood & sequelae of poorly managed pain
- Difficulties in accurate pain assessment & the need for different pain measurement tools (NIPS, PAT, FLACC, Wong-Baker & Numerical Rating Scales) ~ application & limitations.
- Use other salient observations to corroborate accuracy of Pain Scores (viz mood, behaviour, limit of function/ activity)
- Concept of Pain as the 5th Vital Sign. Note that regular assessment is important & should involve staff, parents & child (e.g. keeping a Pain Diary).
- To be able to prescribe effective analgesia appropriate for the individual's pain intensity, pattern and clinical condition.
- To anticipate & manage side-effects & complications incurred

- To identify neuropathic/complex pain requiring specialist input
- To appreciate non-pharmacological methods (Music, Play)

ASSESSING PAIN

Pain scores must be assessed & charted daily for 2 situations:

- At Rest (i.e. Baseline Pain) &
- On Movement/Deep breathing (i.e. Incident or Dynamic Pain)

Pain Scales featured are those used in our insitution.
The FLACC Scale: *Observational Behavioural Pain Measure*
Suitable for age 3yrs & below (to as young as 2 months)
Scored on a series of observations of known pain behaviours.
Maximum score = 10, Minimum score = 0
Need active pain management/additional analgesics if scored > 3

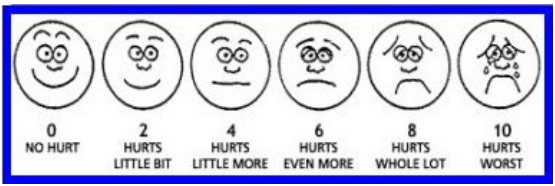
Face Legs Activity Cry Consolability Scale

Score	0	1	2
Face	No particular expression/smile	Constant grimace/frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
Legs	Normal position, relaxed	Uneasy, restless, tense	Kicking or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, moving back & forth, tense	Arched, rigid or jerking
Cry	No cry (awake / asleep)	Moans or whimpers, Occasional complaints	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging, talking to (distractable)	Difficult to console or comfort

Other Observational-Behavioural Pain Scales used in our institution:

1. **NIPS (Neonatal Infant Pain Scale):** *for newborns & Neonates*
2. **WONG-BAKER FACES Scale**: *Self-report score for age 3 - 5yrs.*

Child needs to understand concepts of less, more, least & most.
Maximum score = 10, Minimum score = 0
Need active pain management/additional analgesics if score is > 3



NUMERIC RATING SCALE (NRS): *Self-report Score for age > 5yrs based on numeric rating of Pain Intensity*
Maximum score = 10, Minimum score = 0
Need active pain management/additional analgesics if score is > 3

THERAPEUTIC PRINCIPLES OF PAIN CONTROL:

a. Basic Analgesic Pharmacology (refer to section on drug doses)
- Drug Classes, Mode of Action, Pharmacokinetics
- Indications & Contra-indications
- Side-effects, Complications, Interactions & their management
- Dosing, Routes of administration, Onset/Latency & Duration

b. Good Prescription Practices :
- Individualize doses **on a per kg body-weight basis**
- Be aware of the **maximum** allowable **single** dose limit
- Stay within **recommended 24h daily dose limit**
- **Limit duration** of prescription to **3 - 7 days** & reassess
- **Frequent CLMM review** (daily) & make **adjustments** for age, disease, risk profile & response to therapy

c. Effective **analgesia** (through standardised logical prescription):
- **By the Ladder** (WHO Analgesic Ladder)
- **By the Clock** Strictly for baseline analgesia
- **By Patient's Request** (PRN rescue for unexpected pain)
- **By Risk Status** (constraints of age, disease, post-op status requiring dose reduction or route restrictions)

Select drug based on potency to match pain intensity. Include an opiate if moderate to severe pain exists (escalate as per the WHO Ladder, using Multi-modal Therapy & Analgesics round the clock (strictly served) to maintain within the "Analgesic Corridor"

Appreciate that Pain is dynamic, not static. Proactive treatment dictates provision of PRN analgesics for breakthrough/incident pain
Appreciate that pain is strongly influenced by anxiety

d. Avoid or Rectify Analgesic Gaps
- Address Incident /Breakthrough/End of Dose Pain
- Assess cause for increasing pain/analgesic requirements
  - disease progression
  - iatrogenic eg DXT & mucositis, physiotherapy
  - opioid dependence; tolerance; opioid induced hyperalgesia
  - Treat according to cause; use **lowest effective dose**

e. **Avoid or Manage Withdrawal** (Abstinence Syndrome)

- Gradual Weaning till Discontinuation (if opioid therapy > 5-7 days)
- Use Analgesic Substitutes / Analgesic adjuncts eg. Clonidine 1mcg/kg
- Monitor for withdrawal e.g. WAT-1 scores
- Wean single drug at a time

f. **Overall Plan** (analgesia, escalation, weaning, cessation, discharge)
Opiate Conversions (eg. from IV to PO based on 24h opioid use)
Opioid Rotations/ Substitutions +/- weaning; for sufficient duration

g. **Analgesic Modalities**

- **Simple Analgesia**: oral (PO) and rectal (PR) analgesics, intra-venous (IV) morphine infusions,
- **Specialized Analgesia** by the APS:
  Patient Controlled Analgesia (PCA) or authorised agent controlled analgesia (AACA)
  Continuous Epidural Infusions
  Caudal Additives (Morphine/ S+ketamine/ Clonidine)
  Continuous Regional /Plexus Blocks
  Continuous Wound LA Irrigation with an infusor