PAIN MANAGEMENT IN OBSTETRICS & GYNAECOLOGY

OUTLINE

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INTRODUCTION

- Improving the quality of care around the time of birth is the most impactful strategy for reducing stillbirths, maternal and newborn deaths (WHO).

- Care to labour pain is an important component in the management of labour.

- Careful attention to symptoms of pain in obstetric patients could help reduce morbidity and mortality. e.g. headache in pre-eclampsia, intracranial conditions; abdominal pain in abruptio placenta, uterine rupture, other surgical condition

INTRODUCTION

Management of labour pain is unique:

- **Contraction is a desired effect of labour process but NOT the pain!**
- **Labour pain progresses and ends after delivery of baby; with variable duration**
- **Pain management of obstetric cases may affect the fetus or mother; and the mother has to continue with care of newborn**

OBJECTIVES

- To improve the understanding of labour pain among health care providers.
- To recognise and assess patients' pain level effectively using the pain assessment tools.
- To provide appropriate and safe interventions in labour pain management.
- To ensure adequate assessment, counseling and patients' involvement in deciding their pain management.
- To optimize the role of companions in providing support to women in labour.
- To improve patient's satisfaction during their labour process.

BENEFITS OF IMPLEMENTING LABOUR PAIN MANAGEMENT

- Better intrapartum care through closer patient - staff interactions / communications. Better monitoring of labour can help reduce adverse outcomes.
- Decreased anxiety / stress to women in labour; hence reduced chance for intrapartum fetal / neonatal risks from poorly managed labour pain
- Healthier, comfortable mom & baby, and a more successful breastfeeding, and also postnatal recovery.

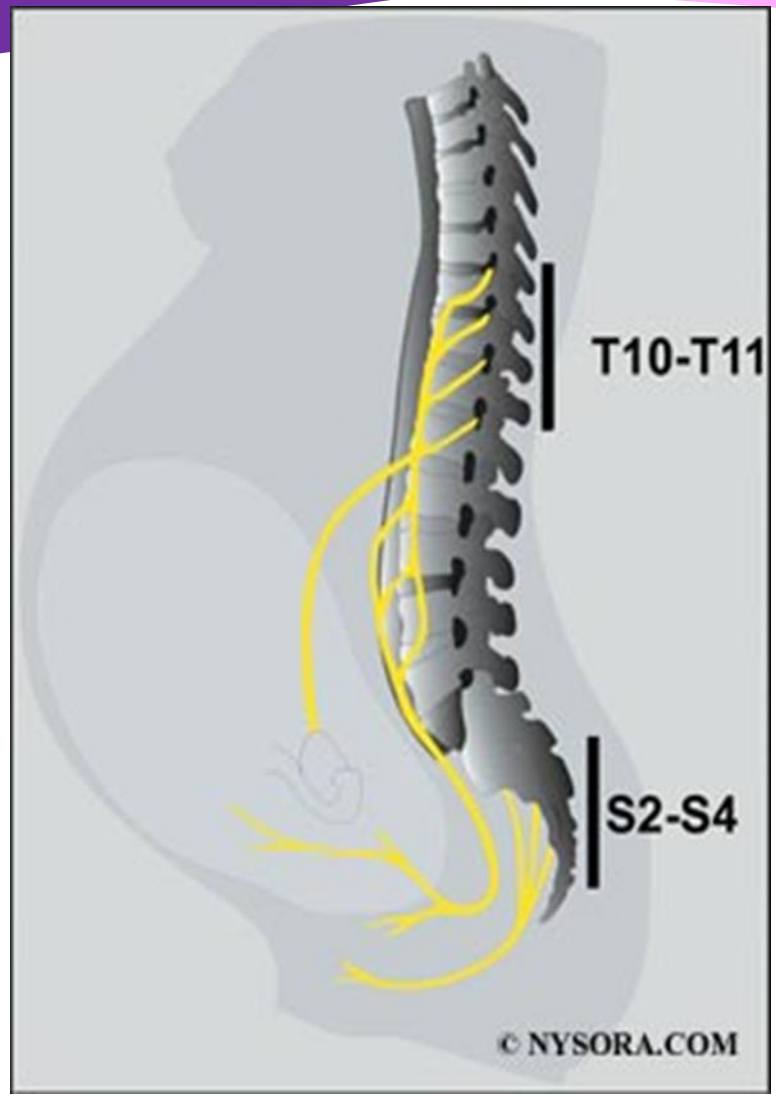
LABOUR PAIN CLIENT CHARTER

- The health care personnel will strive to provide you with a better labour experience.
- The health care personnel will give prompt attention to your labour pain.
- The health care personnel will monitor your labour pain throughout your stay.
- The management of labour pain will be individually tailored using appropriate intervention.

PRINCIPLES OF PAIN RELIEF IN THE OBSTETRIC PATIENT

- Obstetric analgesia might be required throughout pregnancy till post delivery
- The method should not cause more side effect to the fetus/ infant e.g.
  - Opioids - neonatal respiratory depression
  - NSAID - miscarriage or premature ductus arteriosus closure
- Type of analgesia should provide adequate pain relief with the least maternal side effects
- The analgesic techniques used should exert little or no deleterious effect on uterine contractions and voluntary expulsive effort.

Pain pathway in a patient



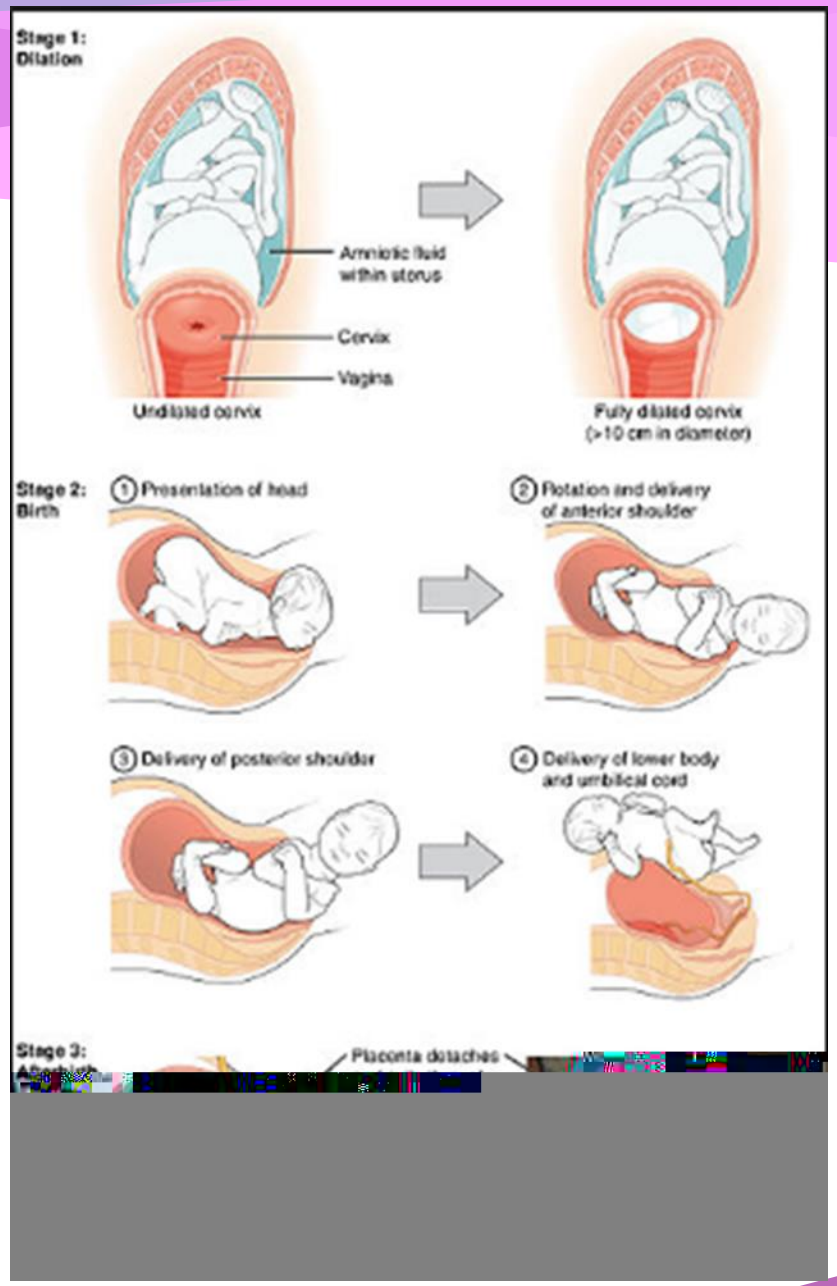
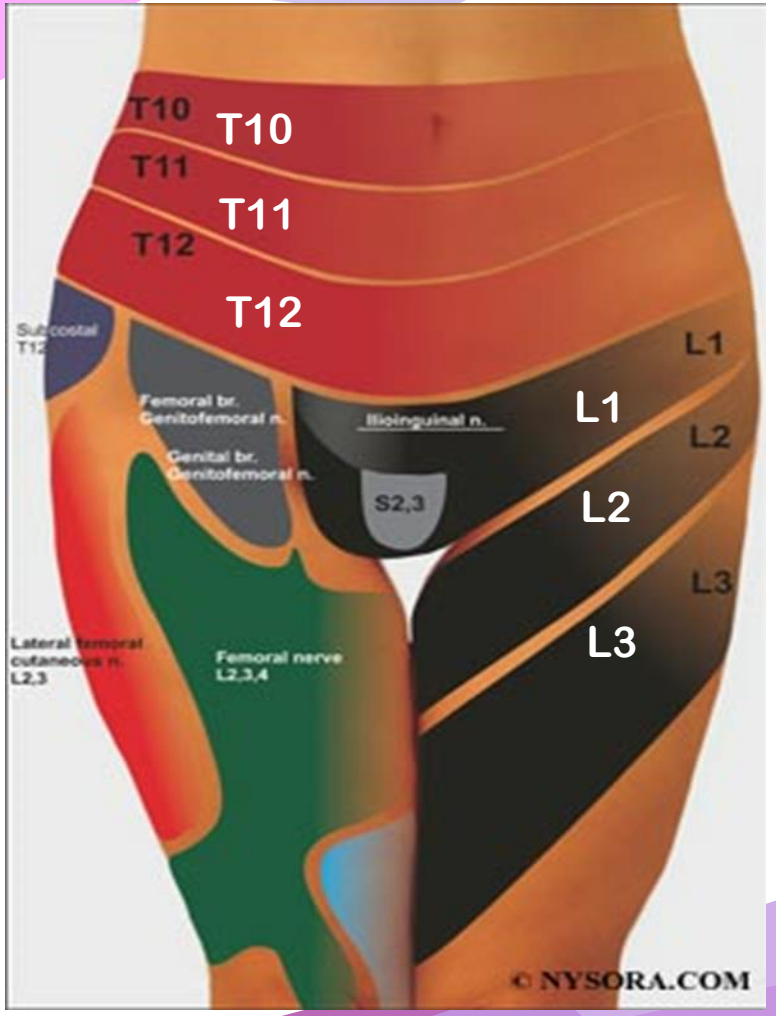


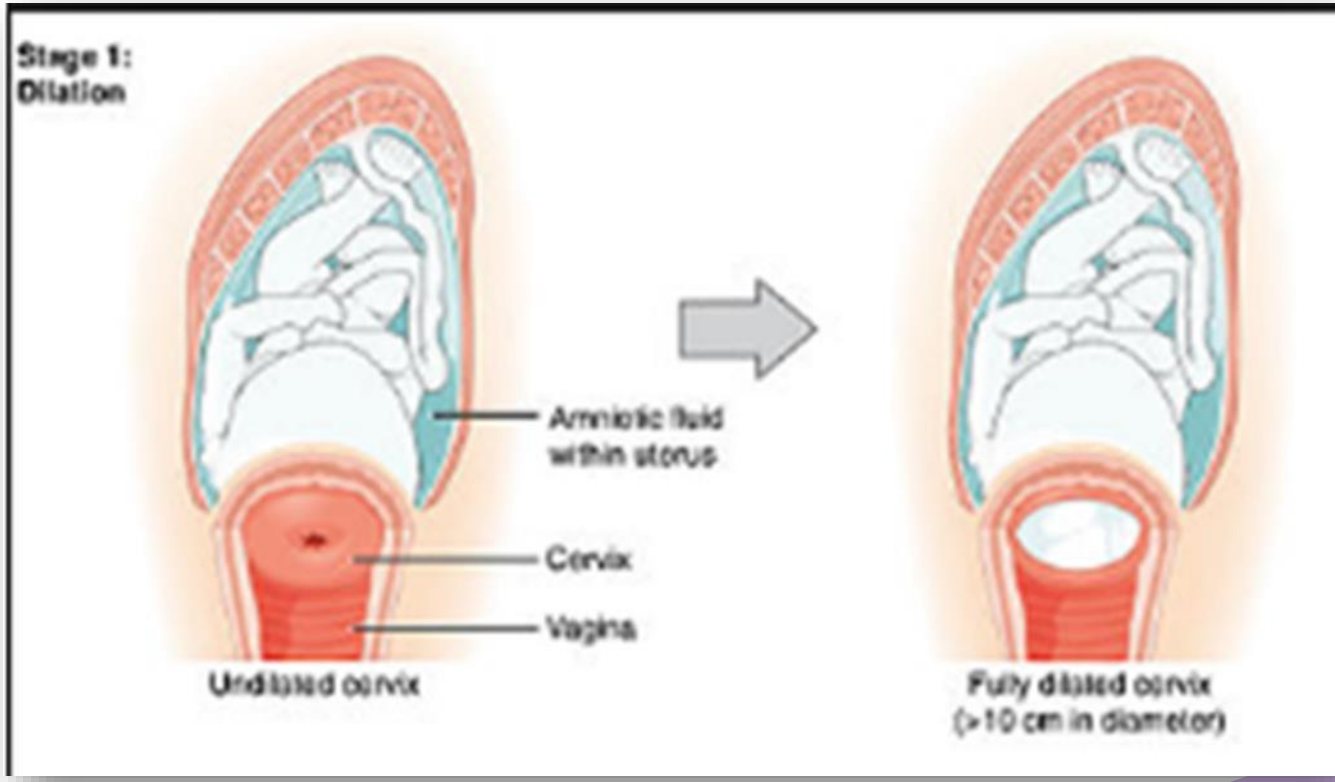
Figure 2 : Dermatomes of the lower abdomen, perineal area, hip, and thighs



STAGES OF LABOUR PAIN

1st STAGE:

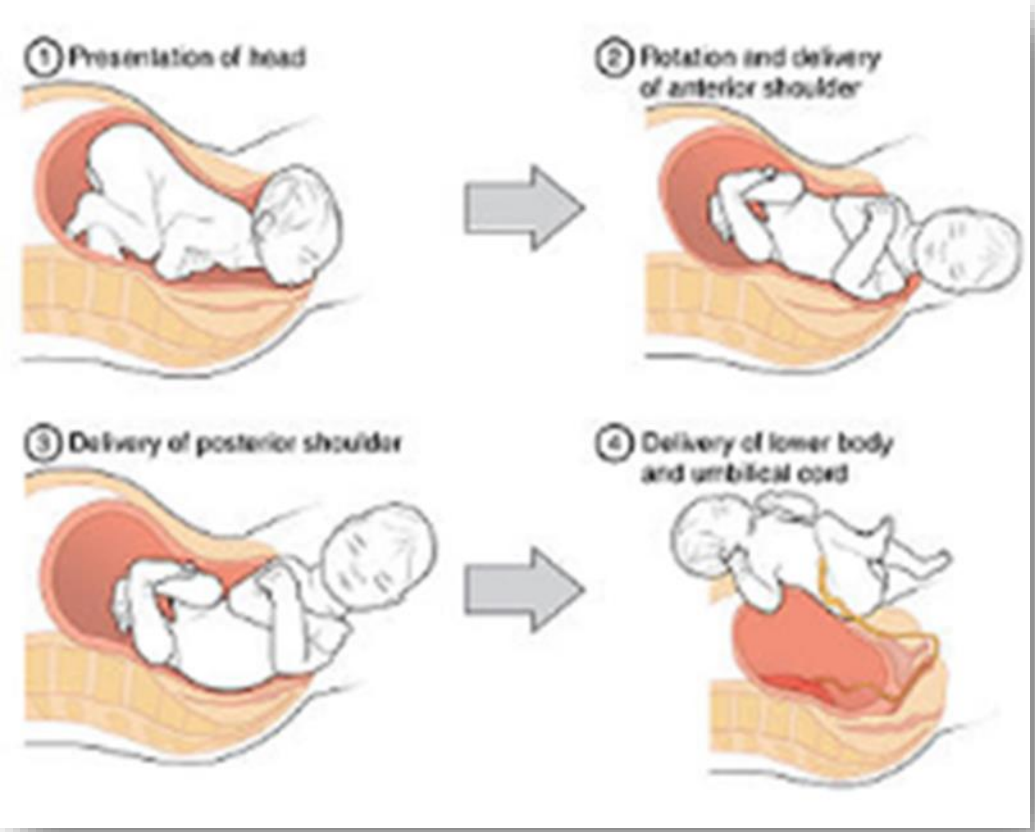
- Dilatation of cervix; stretching and tearing of lower segment and cervix
- Labour pain is VISCERAL in nature and it is poorly localized, diffuse, dull and vague. It is usually referred as periodic and builds to a peak.
- The pain fibers are transmitted via T10, T11, T12 and L1 spinal nerves.



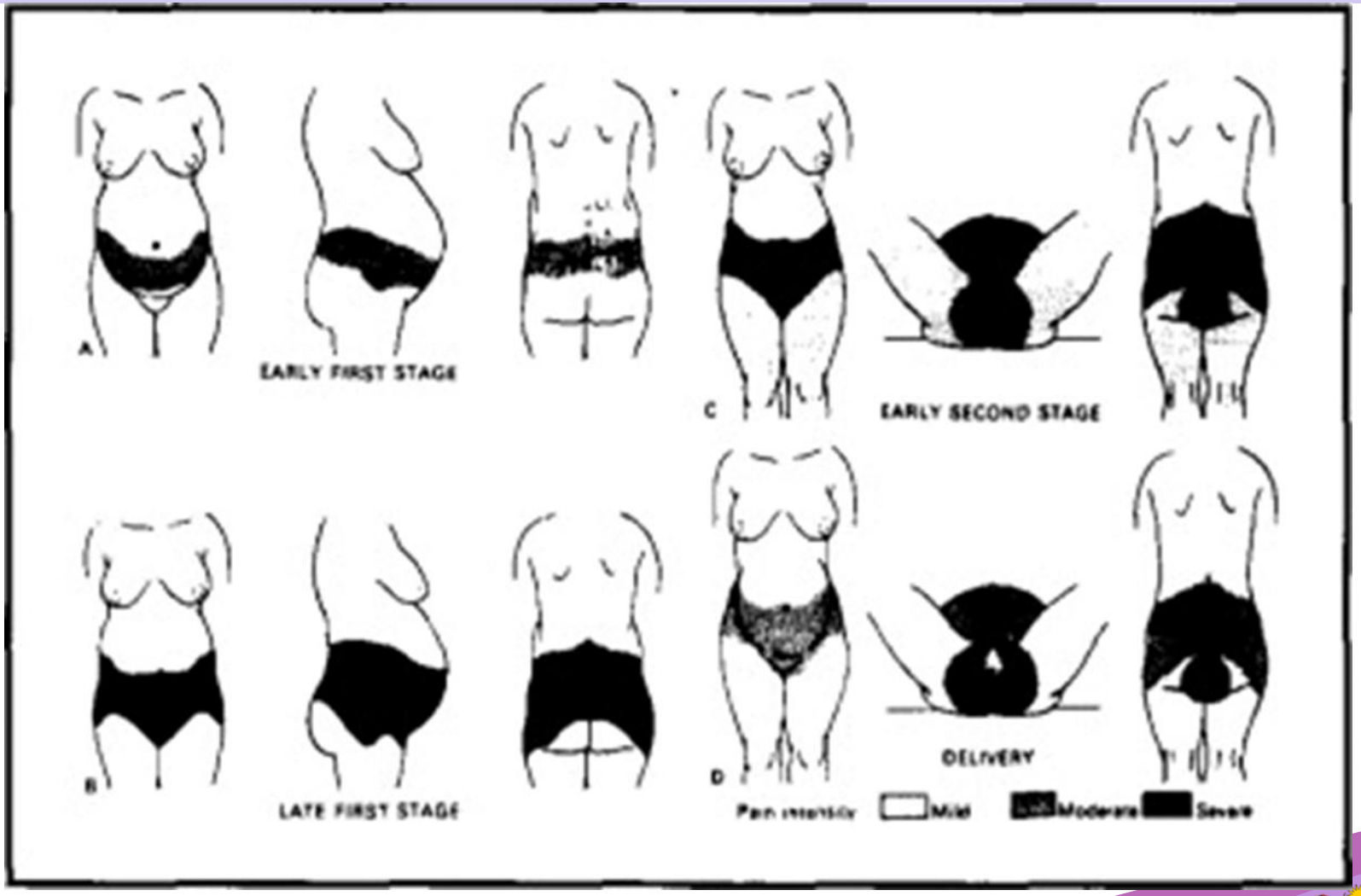
STAGES OF LABOUR PAIN

2nd STAGE:

- It arises from the uterine body contractions and distension of the lower uterine segment due to increasing pressure of the fetal presenting part on pelvic structures.
- The pain is SOMATIC in nature and is well localized, sharp, definite, and intense…… PLUS ++ the ongoing visceral pain of the uterine contractions.
- The pain is transmitted via the pudendal nerve, a somatic derivative from the S2, S3 and S4 sacral nerve roots + T10- T12, L1.



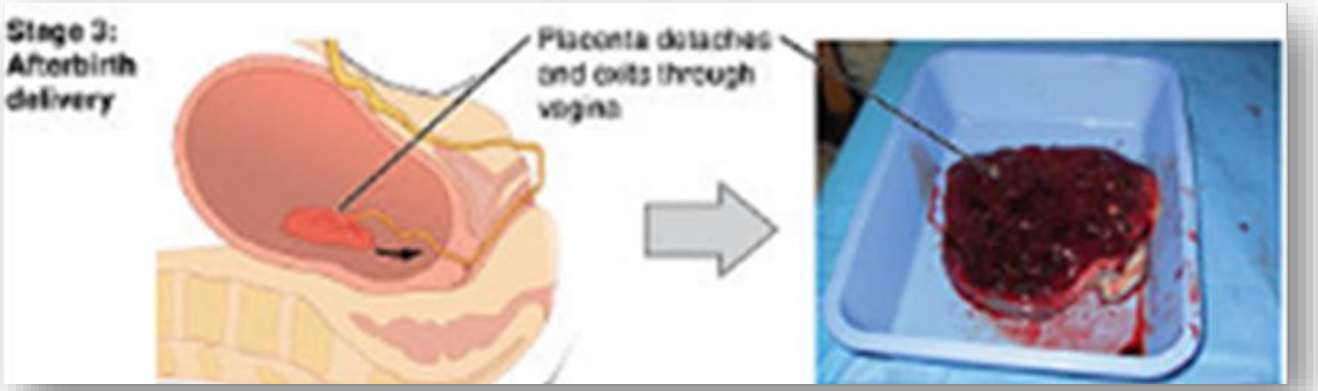
AREAS OF PAIN EXPERIENCED DURING LABOUR AND DELIVERY PROCESS



STAGES OF LABOUR PAIN

3rd STAGE:

- After delivery of baby until expulsion of placenta
- Usually minimal pain



POST-DELIVERY:

- Perineal wound
- Uterine involution
- Caesarean wound
- Others - Back pain, leg pain, breast, headache etc

FACTORS THAT MAY INFLUENCE LABOUR PAIN

Physical	Psychological and Ethno-cultural
1. Age and parity 2. Stages of labour 3. Physical condition (prolonged labour, dehydration and starvation) 4. Frequency of contraction 5. Maternal position in labour 6. Delivery interventions	1. Perceptions and attitude towards labour 2. Knowledge of childbirth & expectation of pain ***(improved tolerance)*** 3. Fear and anxiety 4. Prior experience of pain 5. Support and environment 6. Socioeconomic status 7. Culture and beliefs

LABOUR PAIN MANAGEMENT AND BABY FRIENDLY HOSPITAL

- Labour pain depends on the woman's threshold and others factors.
- Measures must be taken to alleviate the pain and provide comfort during labour,
  - ensuring a pleasant experience to aid care of infant, recovery and breastfeeding post-delivery.
- Pain management in labour is in line with Baby Friendly Hospital Initiative

(Component no 3. of Mother Friendly Care) - Encouraging women to consider the use of NON-DRUGS METHODS of pain relief unless analgesic and anaesthetics drugs are necessary because of medical condition, respecting the personal preferences of the women.

PAIN ASSESSMENT IN LABOUR

- Pain including labour pain, is very subjective and the patient's self-report is the gold standard in the measurement of pain.
- Women in labour will be counseled regarding the progressive nature of the pain (also as a guide for pain scoring).
- Education on labour and delivery should ideally be informed during antenatal period.

PAIN ASSESSMENT IN LABOUR - DOCUMENTATION

MOH Pain Scale

Pain score of 0 to 10 is the scale used for the measurement of pain

PAIN ASSESSMENT IN LABOUR - DOCUMENTATION

- Pain score shall be documented in the observation charts including labour progress chart and partogram.

- Frequency of monitoring labour pain:
  - Latent phase - During each observation on labour progress chart, at least every 4 hours
  - Hourly on partograph

- Always ask about pain at any other parts of body eg 'ada sakit lain?'

OBSERVATION CHART
OBSTETRIC AND GYNAECOLOGY

NAME: WARD: MRN:

DATE	TIME	B/P	PR	MAP	RR	SPO2	PAIN SCORE		FHR	CONTRACTION	PAD CHART	REMARKS	NAME OF STAF
							SCORE	LOCATION					

(PER-OBST-303)

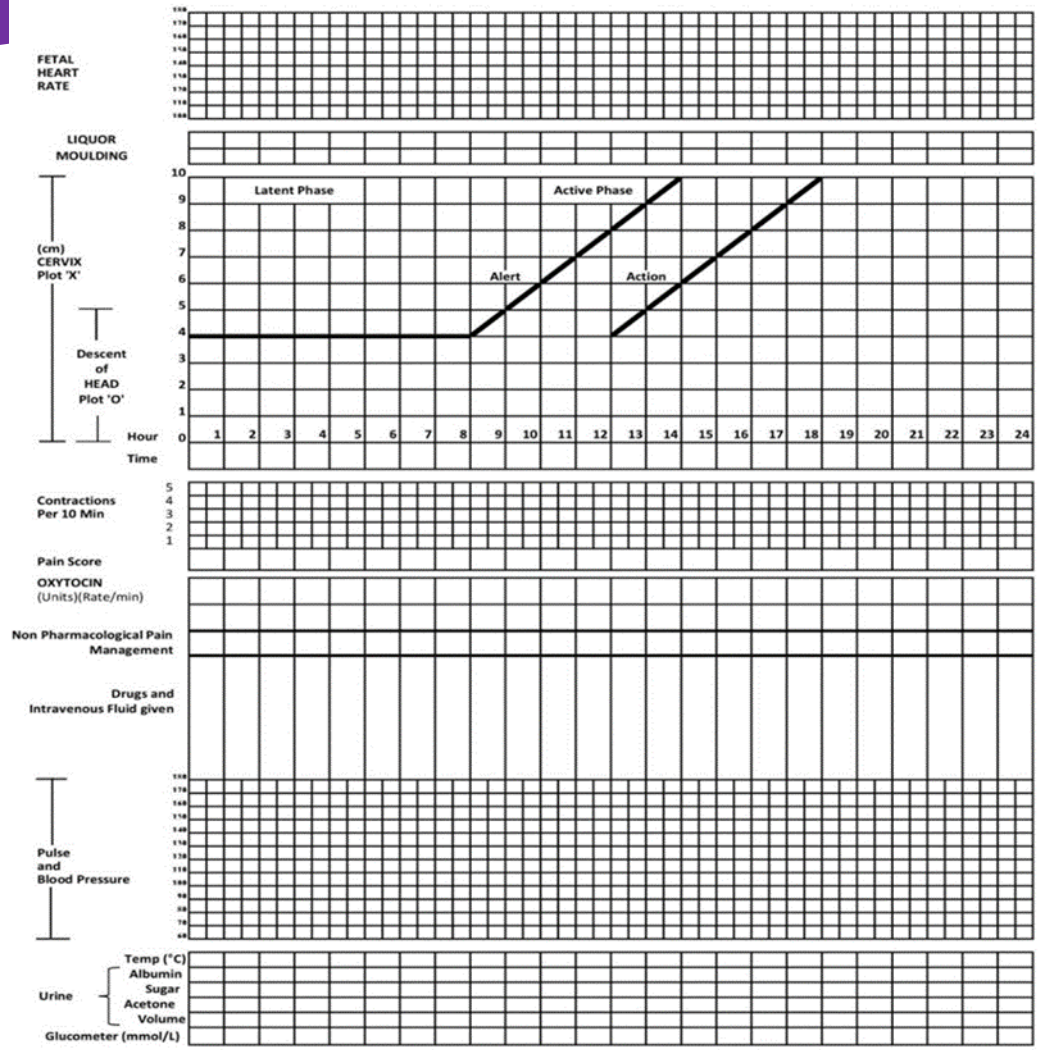
HOSPITAL .....

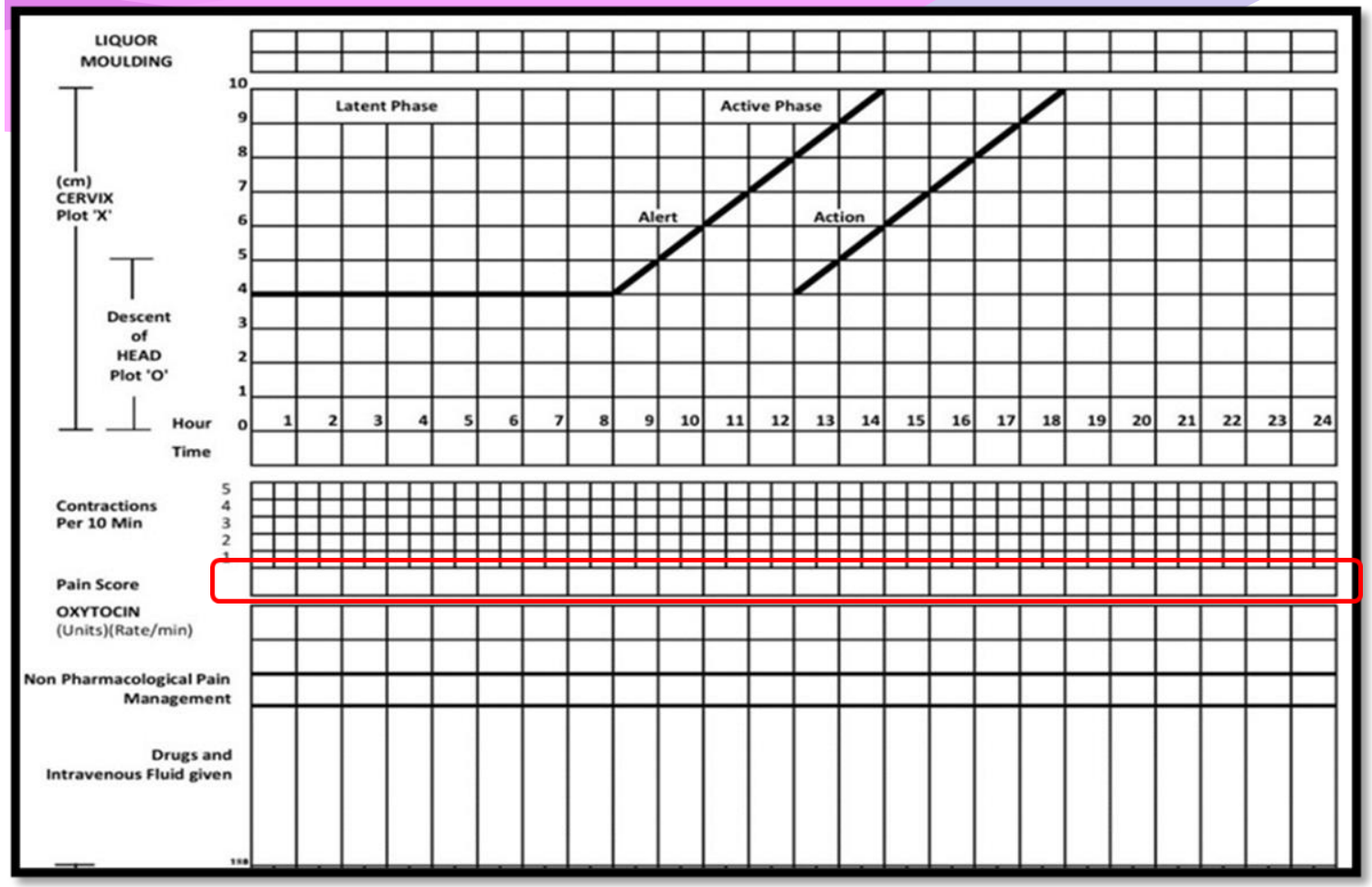
PARTOGRAPH

NAME:.....
AGE:.....
RN:.....
DATE OF ADMISSION:.....
DATE AND TIME TO LR :.....
DIAGNOSIS :

Non Pharmacological Pain Management

B : Breathing
M : Soft tissue manipulation
P : Positioning
TENS : TENS
Ar : Aromatherapy
Au : Audio





MANAGEMENT OF LABOUR PAIN (1)

Pain score < 4 :

- Ask the patient if she is comfortable.
- Counsel regarding the progressive nature of labour pain
- Teach her on non-pharmacological methods ie breathing techniques, walking, positioning, meditations, music etc (> refer guideline)
- Ask the patient if she would like to have simple analgesia Paracetamol.
- Tell her to inform if the pain becoming stronger OR if she would like to request for medication.
- Continue nursing observation of vital signs (including pain score), uterine contractions and fetal heart as per protocol or doctor's instruction.

MANAGEMENT OF LABOUR PAIN (2)

Pain score ≥ 4 :

- Assess uterine contraction, FHR and VE (if indicated), decide transfer to delivery room as indicated and according to local protocol.
- Counsel regarding the progressive nature of labour pain & other non-pharmacological methods , if not already done earlier.
- Inform them about options for medications, and the possible side effects, including the possibility of facing difficulty during early breastfeeding.
- Allow the patient to make her decision. Inform doctor if she requests for medication.

MANAGEMENT OF LABOUR PAIN (2)

Pain score ≥ 4 : (cont)

- Higher pain score generally indicates more forceful and frequent uterine contractions which requires closer monitoring and assessment of the labour progress and fetal wellbeing (eg CTG) to avoid any unexpected undesirable outcome.
- Reassess the pain after half to one hour especially after administration of medication. Increasing pain requires reassessment of labour progress and fetal monitoring (consider CTG). High risk cases or any new concern should be informed to the doctor.

MANAGEMENT OF LABOUR PAIN (3) : MODALITIES OF TREATMENT

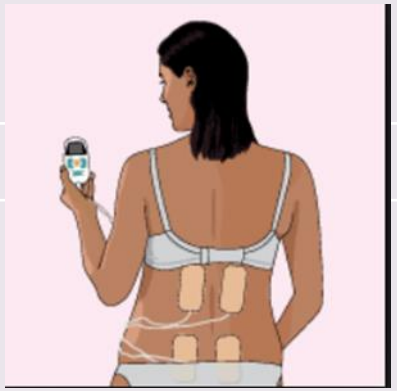
1. Non-pharmacological methods
(Table 2, refer guideline for details)

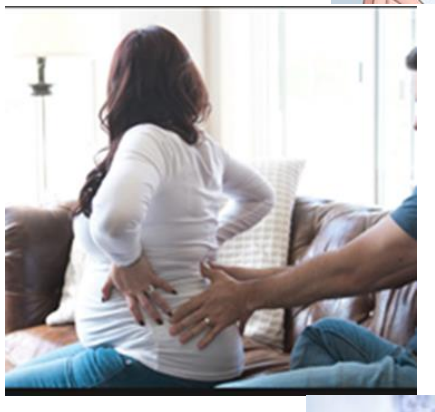
2. PHARMACOLOGICAL METHODS
(refer guideline)

MANAGEMENT OF LABOUR PAIN (3) : MODALITIES OF TREATMENT

Table 2: Examples of interventions and other non-pharmacological techniques for pain management by health care personnel

Reassurance	• Explanation about the pain and stages of labour • Information about the interventions that you are going to give
Relaxation techniques	Breathing Technique , meditation
Touch therapy	Soft Tissue Manipulation
Distraction techniques	• Reading • Listening to music / radio • Watching TV
Electro-therapeutic	Transcutaneous electrical nerve stimulation (TENS)
Others	Aromatherapy , companion (physical & emotional support)





MANAGEMENT OF LABOUR PAIN (3) : MODALITIES OF TREATMENT

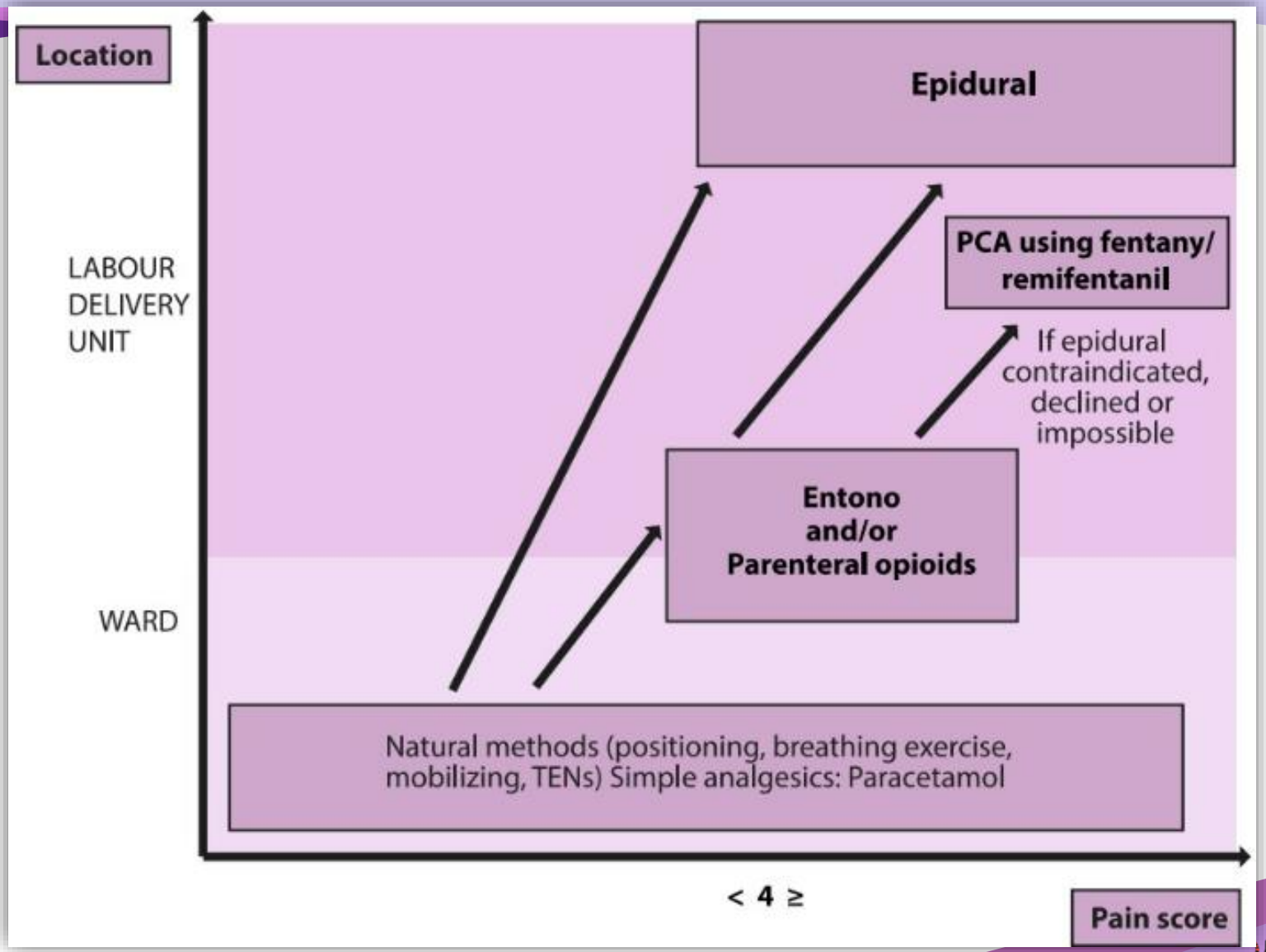
2. PHARMACOLOGICAL METHODS

- Paracetamol (mild-mod pain, or multimodal component)
- Entonox *(not advisable with regards to concern of COVID-19 transmission)*
- Opioids – tramadol, nalbuphine, pethidine
- Epidural
- PCA fentanyl or remifentanil

 # opioids use has risk of respiratory depression, sedation and delayed gastric emptying.
 # use of Pethidine for labour pain is unlikely to cause drug addiction.

Refer guideline -'Pain Management in Obstetrics & Gynaecology'

THE "OBSTETRIC LABOUR" PAIN LADDER



PAIN MANAGEMENT FOR OTHER OBSTETRIC PROCEDURES (1)

GUIDELINE FOR PAIN MANAGEMENT WHEN DOING PROCEDURES

1. Check baseline pain score
2. Administer the appropriate pain relief drugs
3. Test effectiveness of pain relief measures prior to the procedure eg tissue byte using forceps
4. Give little time or increase drugs as necessary
5. Start the procedure with monitoring of pain score throughout; ensure adequate pain relief with pain score of not more than 4. Repeat LA infiltration as necessary until the maximum dosage.
6. Reassess pain score following procedure. Provide maintenance drugs.

check work process for pain management during procedures prepared by ETD

PAIN MANAGEMENT FOR OTHER OBSTETRIC PROCEDURES (1)

EPISIOTOMY / PERINEAL REPAIR UNDER LOCAL ANAESTHESIA

Local perineal infiltration with:

- Lignocaine 2% (faster onset, shorter duration 30-60minutes) max 3mg/kg OR
- In case of more prolonged repair;
  - dilute lignocaine in divided repetitive infiltration;
  - Bupivacaine 0.5% (slower onset, longer duration 2 to 4 hours) max 2mg/kg, *(check availability)*
- Additional to local infiltration, if required - entonox, opioids, NSAID, oral paracetamol

❖ Topical analgesic spray should not be used on open wound; consider LA gel if necessary.

PAIN MANAGEMENT FOR OTHER OBSTETRIC PROCEDURES (2)

MANUAL REMOVAL OF PLACENTA (MRP)

- To be done in OT under anaesthesia
- In case of no OT available and urgent indication,
  - IM Pethidine 50mg-100mg (max 100mg) PLUS IV Midazolam in titration 1mg (max 2.5mg) until patient is slightly sedated but arousable (sedation score 1-2).
  - *Flumazenil for the antidote for Midazolam, and Naloxone for the antidote for Pethidine should be available; and to be given in titration.
  - Or Pethidine (as above) with Entonox.

SEDATION SCORE

Score	Sedation level	Clinical findings
0	None	Patient is awake and alert
1	Mild	Occasionally drowsy, easy to rouse, and can stay awake once awoken
2	Moderate	Constantly drowsy, still easy to rouse, unable to stay awake once awoken
3	Severe	Somnolent, difficult to rouse, severe respiratory depression
S	Sleep	Patient asleep

PAIN MANAGEMENT POST-DELIVERY

POST-DELIVERY

- May use NSAIDS and paracetamol
- Others- refer guideline

PAIN MANAGEMENT FOR MINOR GYNAECOLOGICAL PROCEDURES

SECONDARY SUTURING UNDER LOCAL INFILTRATION

- Lignocaine 2% (faster onset,shorter duration 30-60minutes) max 3mg/kg OR
- In case of more prolonged repair;
  - Dilute lignocaine in divided repetitive infiltration;
  - Bupivacaine 0.5% (slower onset,longer duration 2 to 4 hours) max 2mg/kg,
- Additional to local infiltration, if required - entonox, opioids, NSAID, oral paracetamol
- Oral NSAIDs

PAIN MANAGEMENT FOR MINOR GYNAECOLOGICAL PROCEDURES

MANUAL VACUUM ASPIRATION (MVA)

- Indications - endometrial biopsy, first trimester miscarriage (esp incomplete miscarriage)
- Assess pain score before and during vaginal examination
- Counsel breathing technique
- Consider
  - IM Diclofenac Sodium 50/75mg or
  - IV/IM Tramadol 50mg (needs observation)
  - IM Nalbuphine 10mg (inpatient)
  - IV PCM 1gm
  - Entonox
  - Consider Oral NSAID ± paracetamol post-procedure

PAIN MANAGEMENT FOR MINOR GYNAECOLOGICAL PROCEDURES

OFFICE COLPOSCOPY / HYSTEROSCOPY

- Oral NSAIDS / Opioids.
- IM Diclofenac Sodium 50/75mg
- IV PCM 1gm
- Daycare/in-patient
  - IV/IM Tramadol 50mg
  - IM Nalbuphine 10mg

WOUND DRESSING

- Oral NSAIDS / Opioids.
- IM Diclofenac Sodium 50/75mg
- IV PCM 1gm
- Daycare/in-patient
  - IV/IM Tramadol 50mg
  - IM Nalbuphine 10mg

THANK YOU