

Regional analgesia for pain management in traumatic patients

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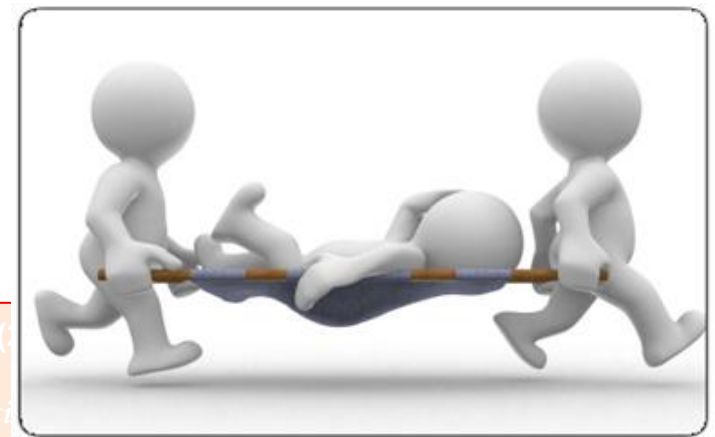
Objectives



- **Short about trauma**
- **Pain in trauma**
- **Pain treatment in traumatic patients**
- **Advantage of regional analgesia in pain management**

Short about trauma

- **Leading cause of hospitalisation in all age groups, particularly 15-44 (WHO)**
- **The 3rd leading cause of death and disability**
- **Road traffic crash – the most common cause of injury**
- **Injury causes tissue damage and inflammation**



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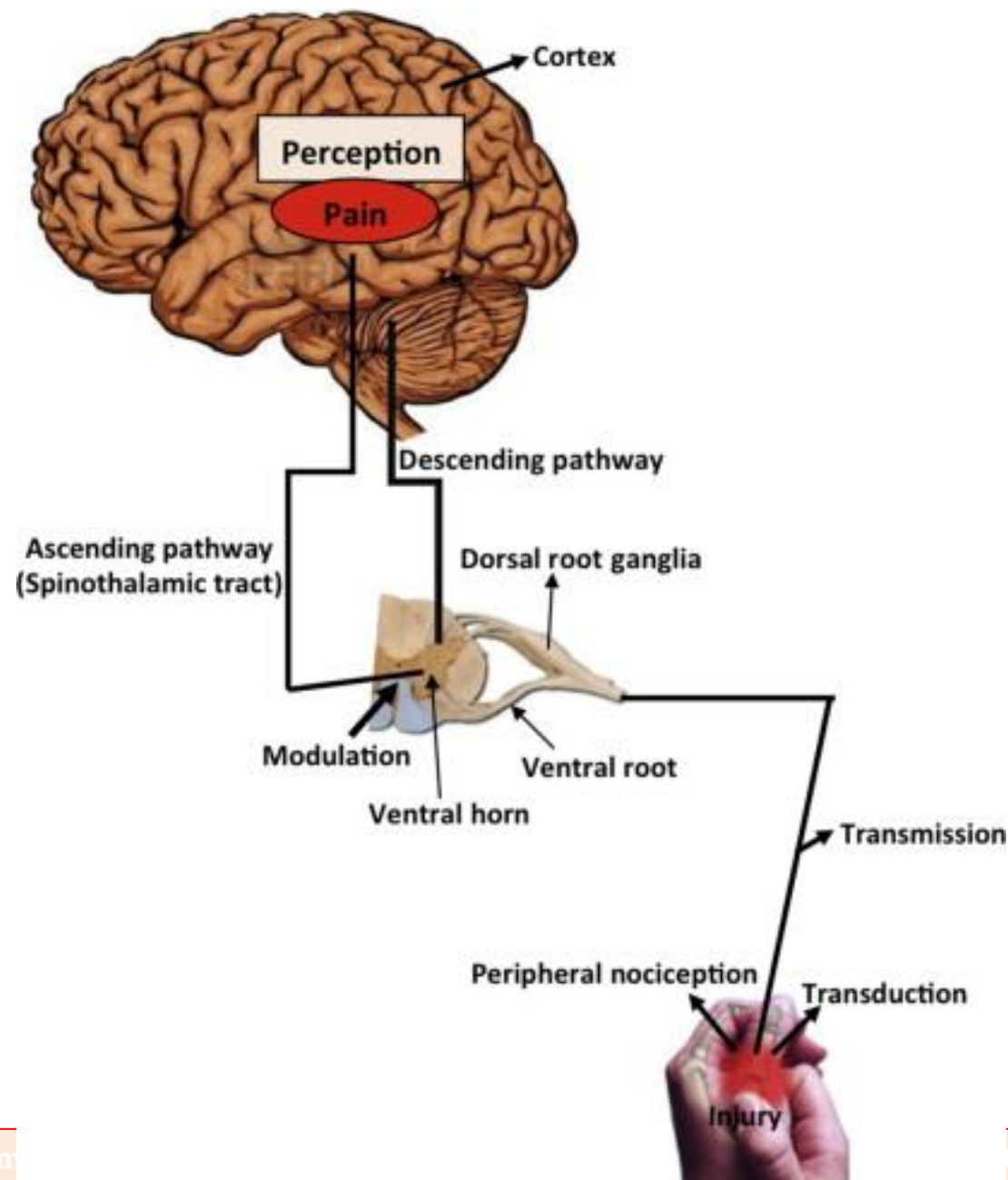
Pain in traumatic patients

- Always present
- Acute
- Mild to severe – depends on injury
- Leads to physiological changes



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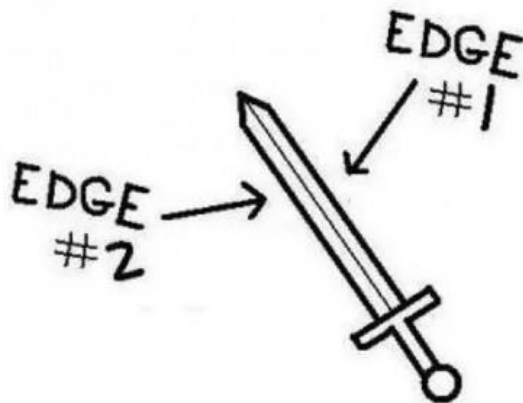
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Pain in traumatic patients

- **Duble edge sword:**
- **good: indication to determine the type of injury**
- **bad: can cause numerous complications and deterioration of the injured patients**



Pain management in traumatic patients

- Challenging
- Wide spectrum of traumatic patients:
- vulnerable children
- young healthy athletes
- frail elderly
- comorbidities, drug abuse

Recommended order of actions in trauma pain management

- **Asses pain – VAS, VRS, NRS, FACES scale**
- **Non-pharmacological interventions**
- **Pharmacological interventions**
- **Regional anaglesia**

Non-pharmacological interventions

- Cold compresses
- Masage
- Position of the body
- Rest



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Pharmacological interventions

Trauma Pain Management based on WHO Pain Ladder

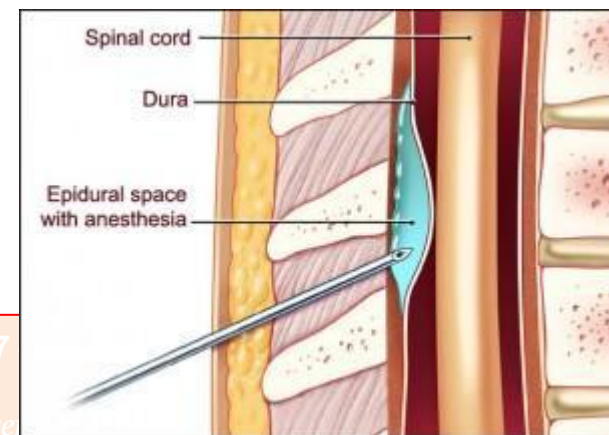
Pain	Methods	Action
Mild	VAS	Pentazocine NSAID's Cold/Hot compresses
Moderate	VAS	Cold/Hot compresses Tramadol Pethidine
Severe	VAS	Morphine Fentanyl RA
Reassessment	Reassess every 5 minutes.	Evidence of adverse effects should preclude further drug administration

Regional analgesia

- **Neuroaxial analgesia – EPA**
- **Peripheral nerve blocks and catheters**
- **TPVB**
- **Sheets blocks and catheters**

Neuroaxial analgesia

- EPA – highly effective for injury of thorax, abdomen and lower extremities
- The analgetics could be titrated
- EPA – long term application
- Contraindications: sepsis, haemorrhagic shock, coagulopathies



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Peripheral nerve blocks

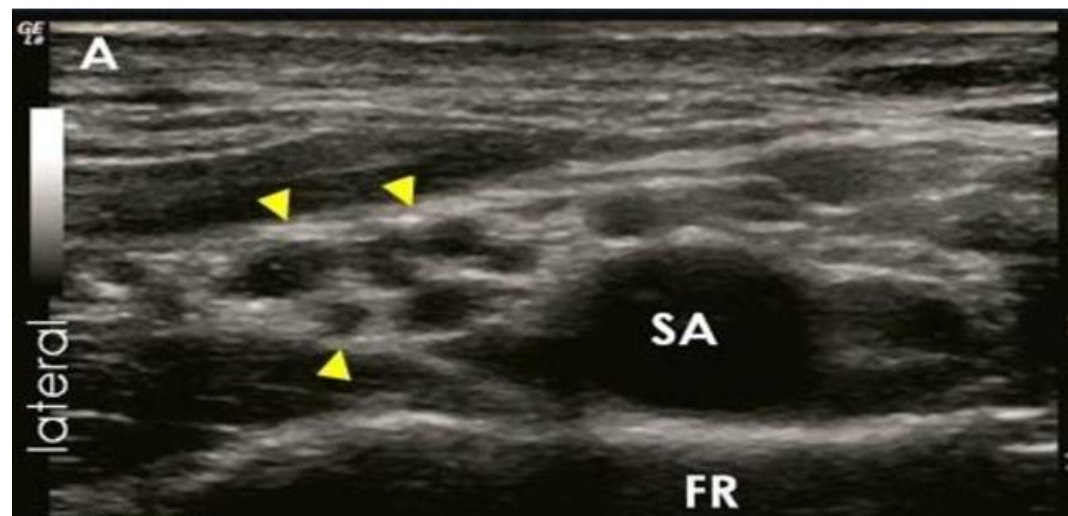
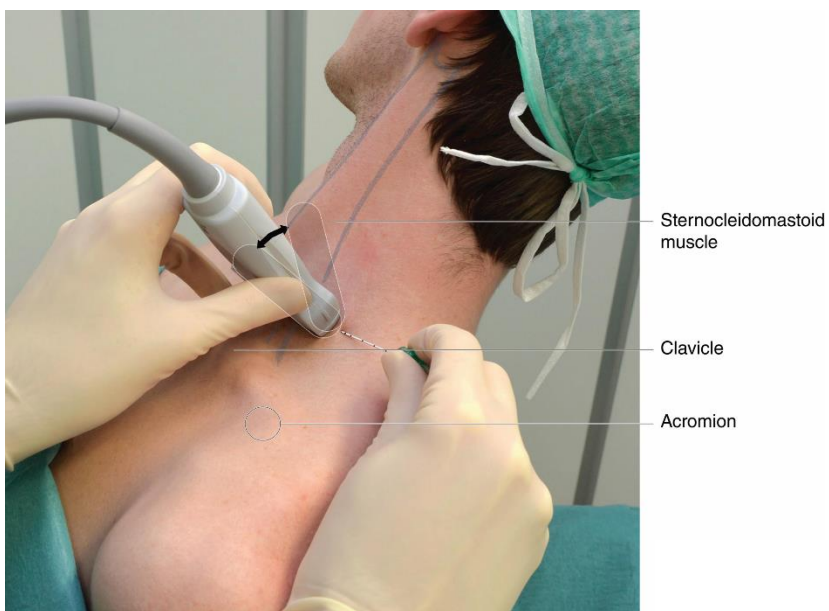
- **Suitable for single injury**
- **Choice depends on site of injury**
- **Plexus block and catheters**
- **Ultrasound guided are preferred**

Peripheral nerve blocks

- **Contraindications:**
 - **haemorrhagic shock**
 - **cogulopathy**
 - **infection of the site of puncture**
- **Require skilled anesthesiologist**

Peripheral nerve blocks

Supraclavicular

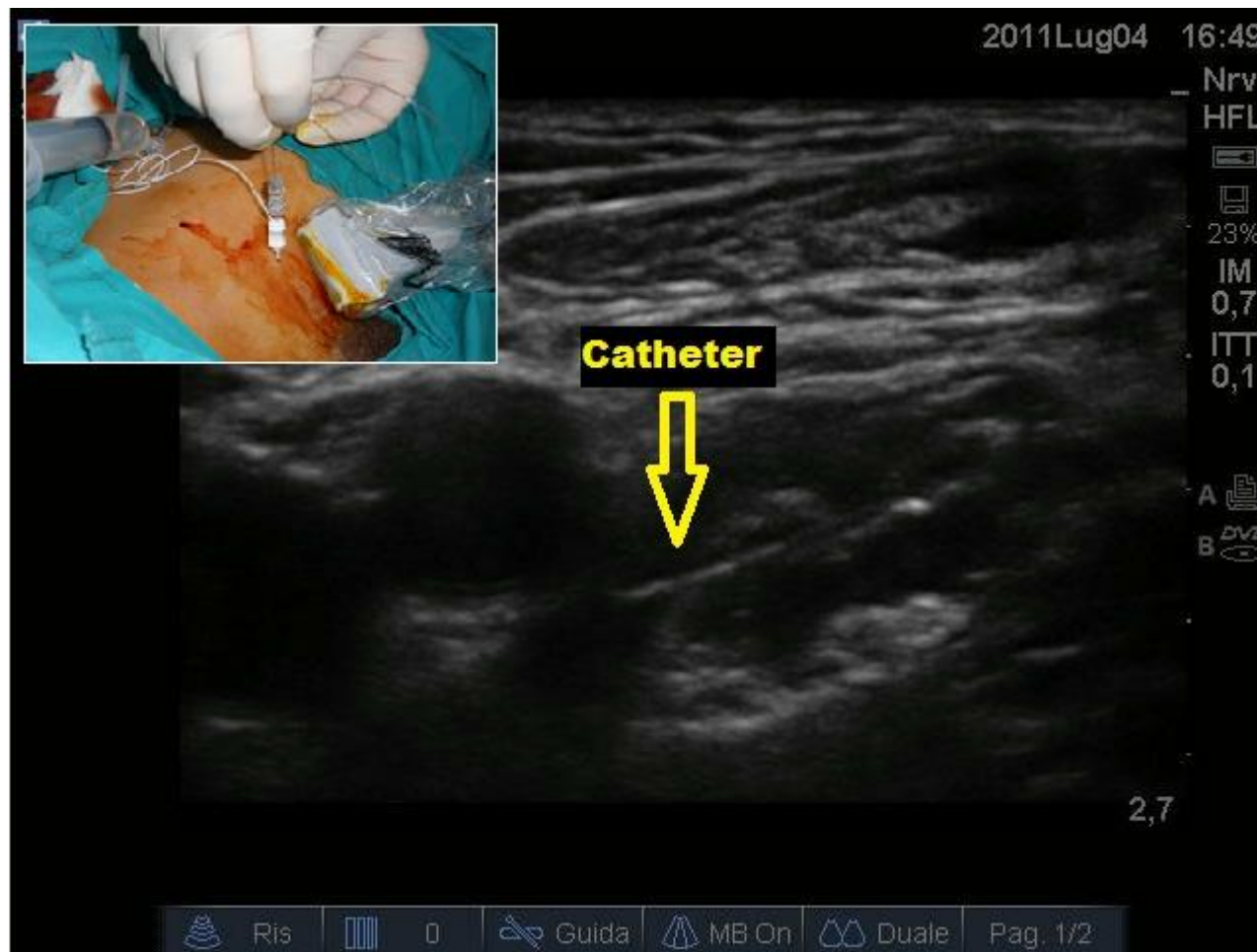


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Peripheral nerve blocks

Femoral

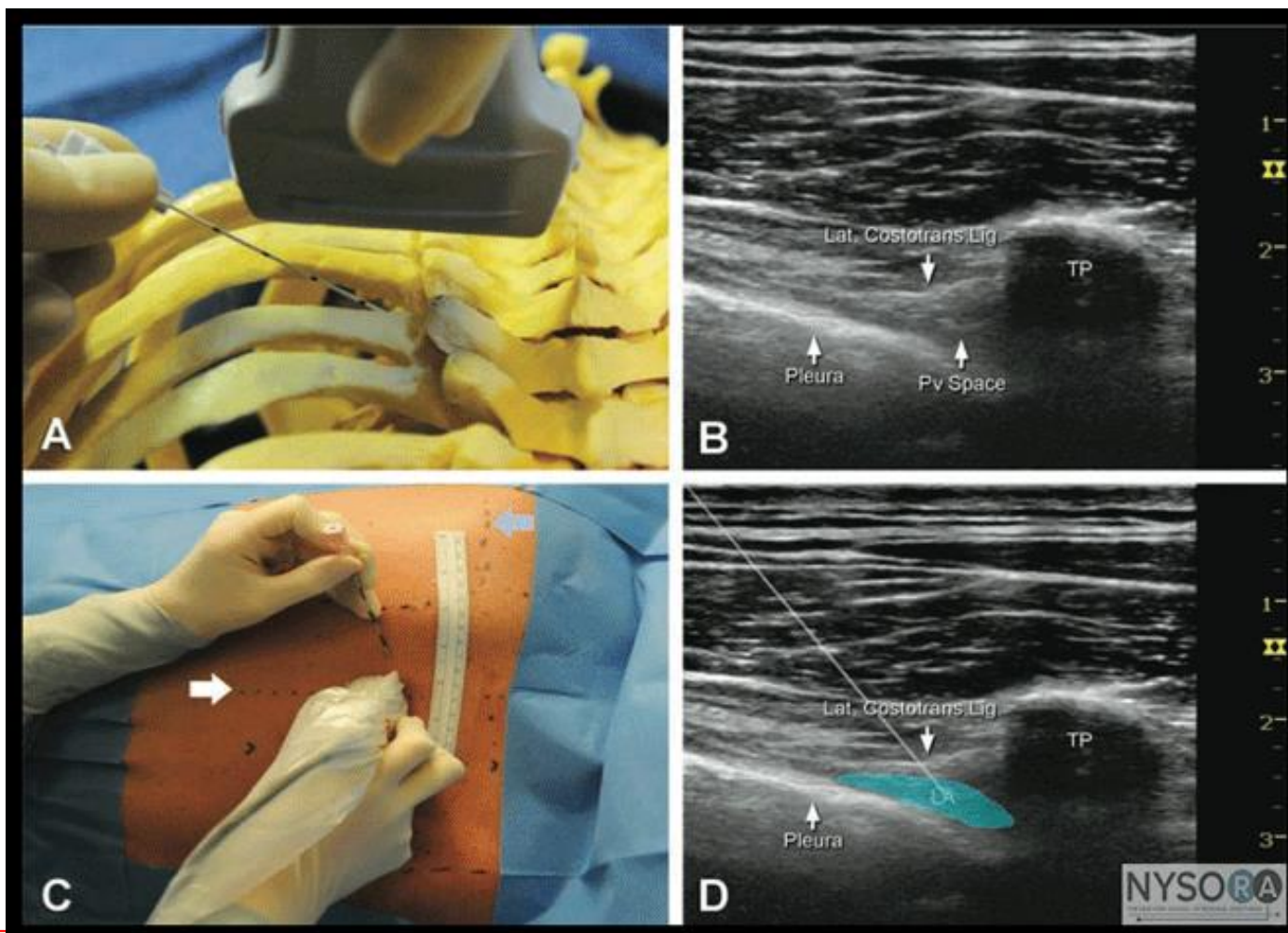


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Peripheral nerve blocks

Paravertebral

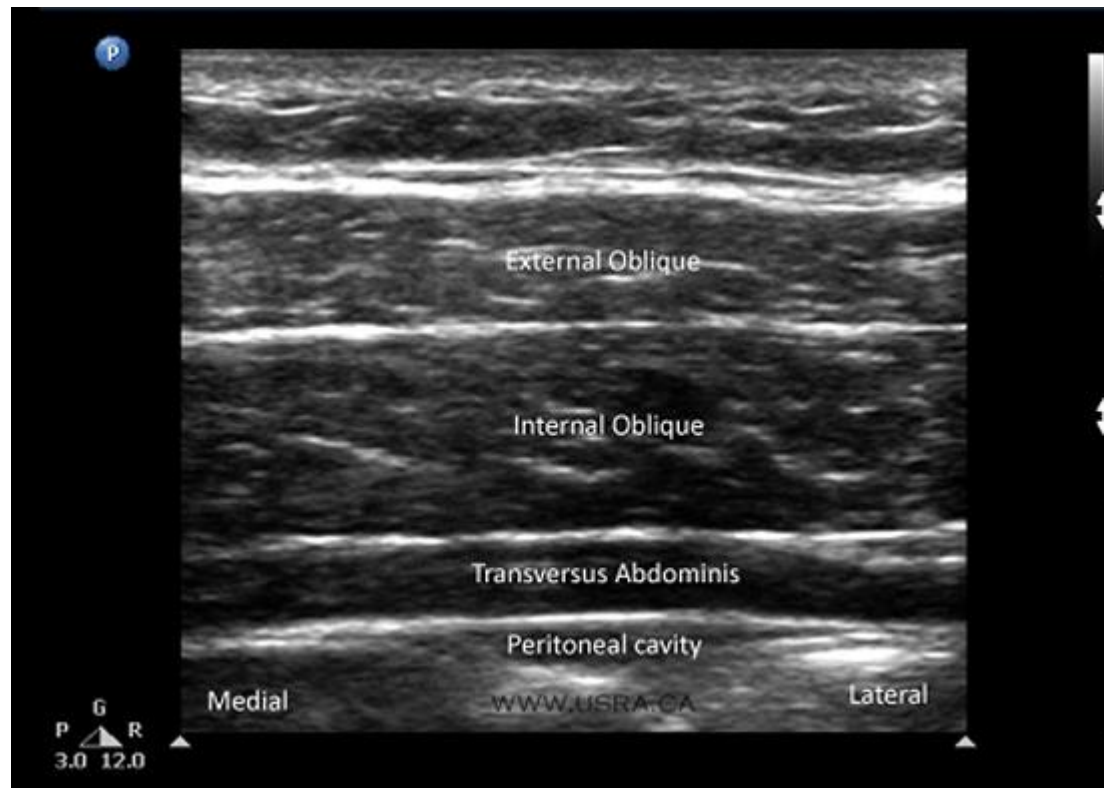


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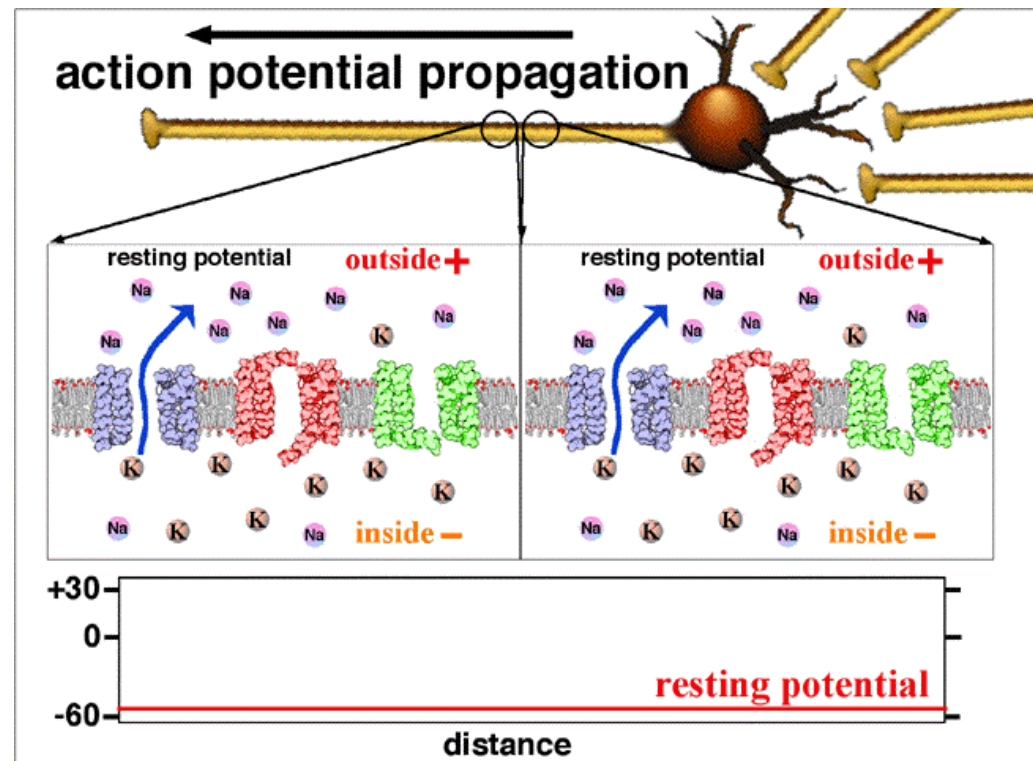
Peripheral nerve blocks

TAP



Choice of analgesic for regional anaglesia

- Local anesthetics
- Opioids
- Alpha 2 agonist
- Clonidine
- Dexamethasone



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Message to take home

- **The main goal of pain management of traumatic patients:**
- **to reduce mortality**
- **to reduce morbidity**
- **to shorten hospital stay**
- **to reduce hospital costs**
- **to increase patient satisfaction and quality of life**

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Message to take home

- Adequate analgesia in traumatic patients is crucial
- Choice of analgesia depends on type of injury, patient, staff knowledge and skills
- Regional analgesia – have many benefits



**KEEP
CALM
AND
CALL
ANESTHESIA**