



Standard Treatment Workflow (STW) TIBIAL PLATEAU FRACTURES

ICD-10-S82.109A

DEFINITION
A fracture involving the proximal end of the tibia which may or may not extend to the articular surface and /or diaphyseal region

MECHANISM OF INJURY

- High-energy trauma in young patients (RTA)
- Low-energy falls in elderly

Management of patient as per ATLS protocols

Presentation:

- Pain, swelling, deformity at or below the knee

PHYSICAL EXAM

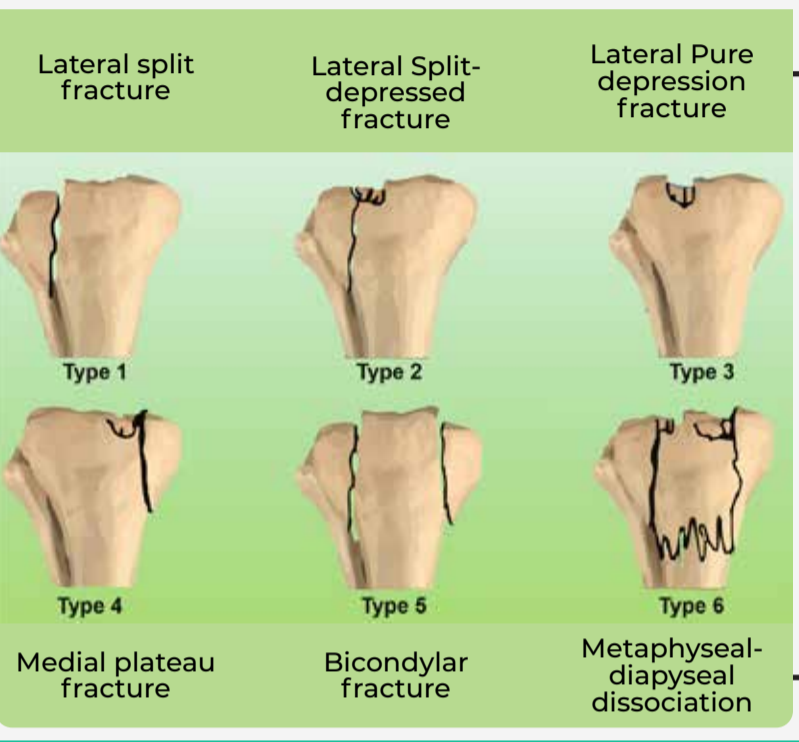
- Look circumferentially to rule-out an open injury
- Tenderness below the knee
- Rule out compartment syndrome (blisters, ecchymosis, swelling, pain out of proportion)
- Look for distal neurovascular deficit

- A. Airway and Cervical spine
 - B. Breathing and ventilation
 - C. Circulation and haemorrhage control
 - D. Disability and Neurological status
 - E. Exposure and Environment control
- Open Fractures - STW
- Urgent referral to higher centre for consideration for Fasciotomy and external fixator application

INVESTIGATIONS

RADIOGRAPHS

- AP View – Schatzker classification
- Lateral View – Posterior fracture component

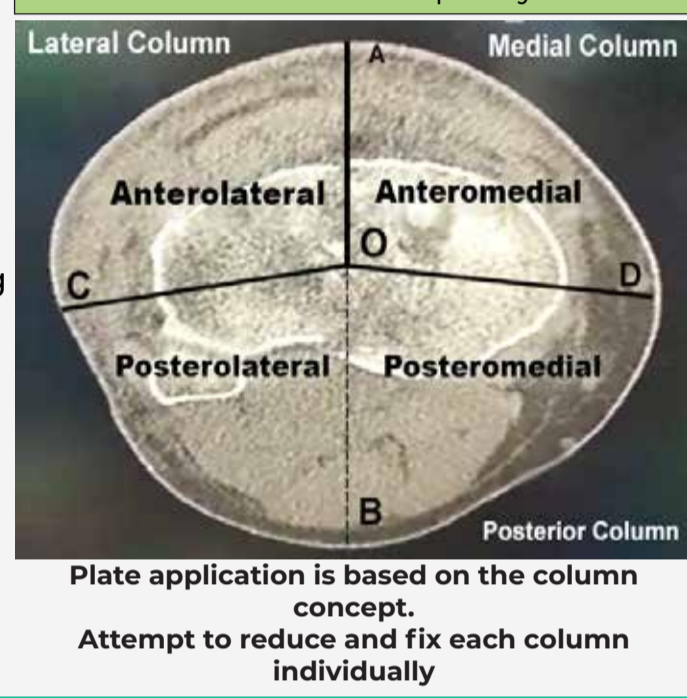
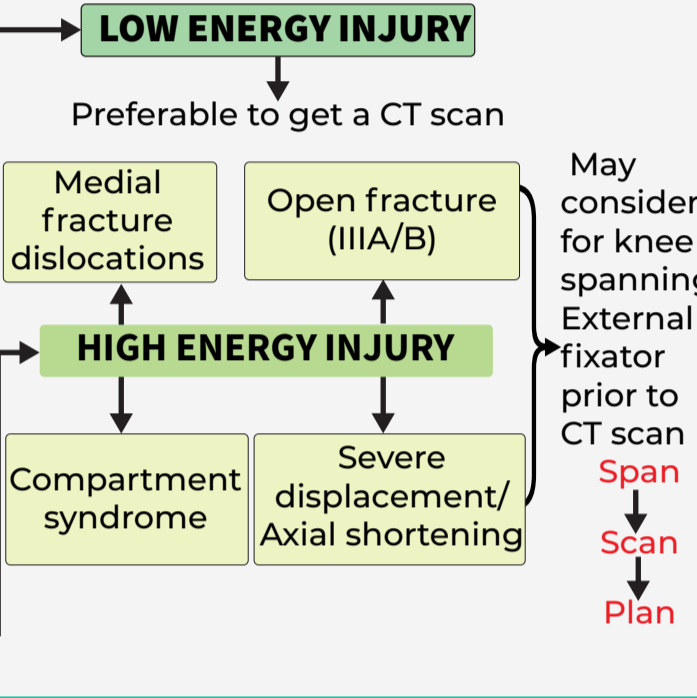


CT SCANS REQUIRED FOR

- Detailed assessment of fracture pathoanatomy & Preoperative planning
- Column classification – Luo

THREE COLUMN CLASSIFICATION (LUO)

- One column fracture is defined as an independent articular depression with a break in the column
- Zero-column fracture = purely articular



MANAGEMENT

GOALS OF TREATMENT

Restoration of joint stability

- Anatomical reduction of the articular surface
- Restoration of the mechanical axis of the lower limb

Screws alone

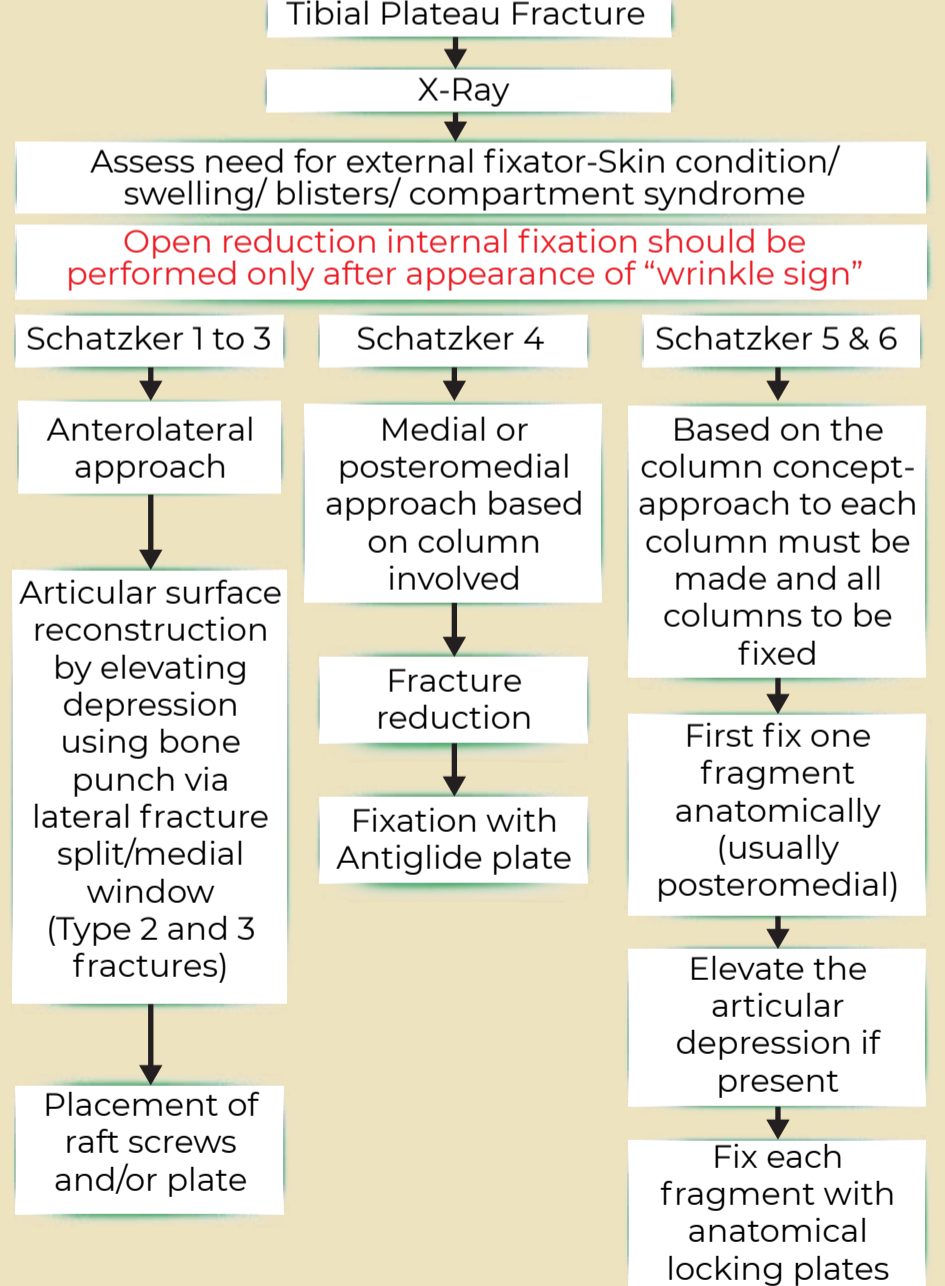
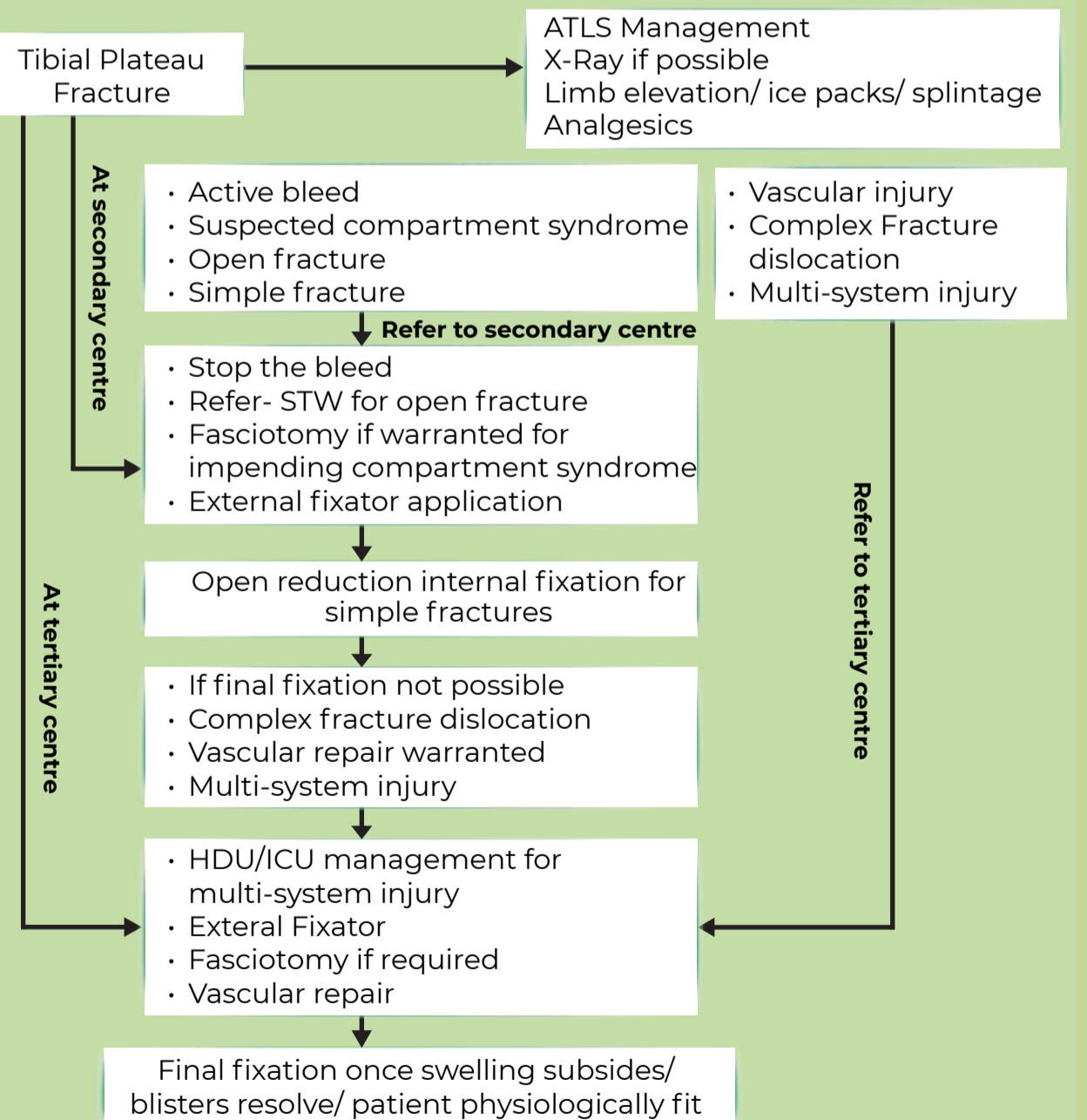
- Simple split
- Depressed fracture elevated percutaneously

Hybrid External fixator/ Ilizarov: Poor skin condition, post fasciotomy

IMPLANT OPTIONS

Anatomical locking plates

- Buttressing against shear forces or Neutralizing rotational forces
- Additionally** – Rim plates/ fragment specific small plates/ bone graft substitutes may be used on case to case basis



ABBREVIATIONS

- ATLS:** Advance Trauma Life Support
- CT:** Computed Tomography
- GA:** Gustillo Anderson
- IM Nail:** Intramedullary Nail
- IV/IM:** Intravenous/Intramuscular
- Mess:** Mangled Extremity Severity Score
- NPO:** Nil Per Oral
- RL:** Ringer's Lactate
- RTA:** Road Traffic Accident

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