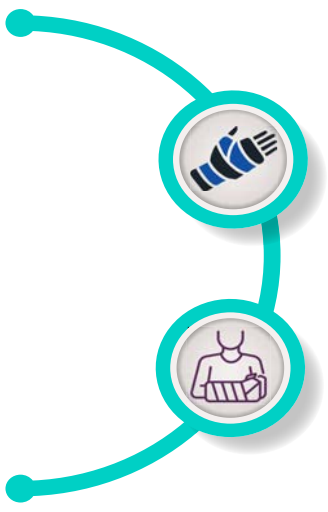
July/ 2024

Department of Health Research
Ministry of Health and Family Welfare, Government of India

Standard Treatment Workflow (STW)

FRACTURE DISTAL END RADIUS

ICD-10-S62



RISK FACTORS

- Old age
- Osteoporosis
- Female
- Post menopause

PRESENTATION

- Pain over distal radius
- Swelling and ecchymosis
- Deformity - commonly Dinner fork or spade
- Painful restriction of wrist motion

EXAMINATION

- Swelling and ecchymosis
- Deformity
- Tenderness
- Limited active and passive wrist motion

INVESTIGATIONS

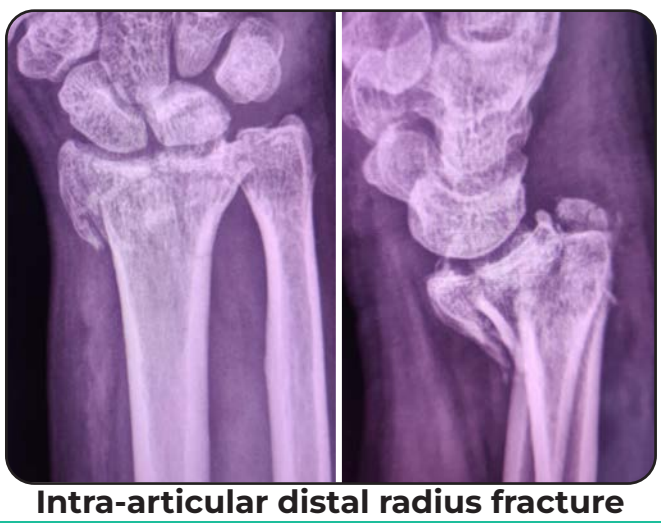
Essential: Radiographs of wrist AP, lateral and oblique views

Desirable (In patients with trivial trauma):

Distal radial fractures may be the first opportunity to evaluate and treat osteoporosis to reduce the risk of future fragility fractures

- Serum calcium, Serum phosphorous, Serum alkaline phosphates
- Serum vitamin D levels, Serum Parathyroid Hormone (PTH)
- BMD all three sites

Optional: CT scan for comminuted fractures and for planning surgery



Intra-articular distal radius fracture

MANAGEMENT

PRIMARY CARE

Simple fracture

Refer to higher centre after:

1. Adequate analgesia
2. Immobilisation of the limb

Open fracture

1. Refer to open fracture STW

Emergent referral:

Open fractures
Neurovascular Deficit
Concomitant trauma requiring immediate admission

SECONDARY/TERTIARY CENTRE

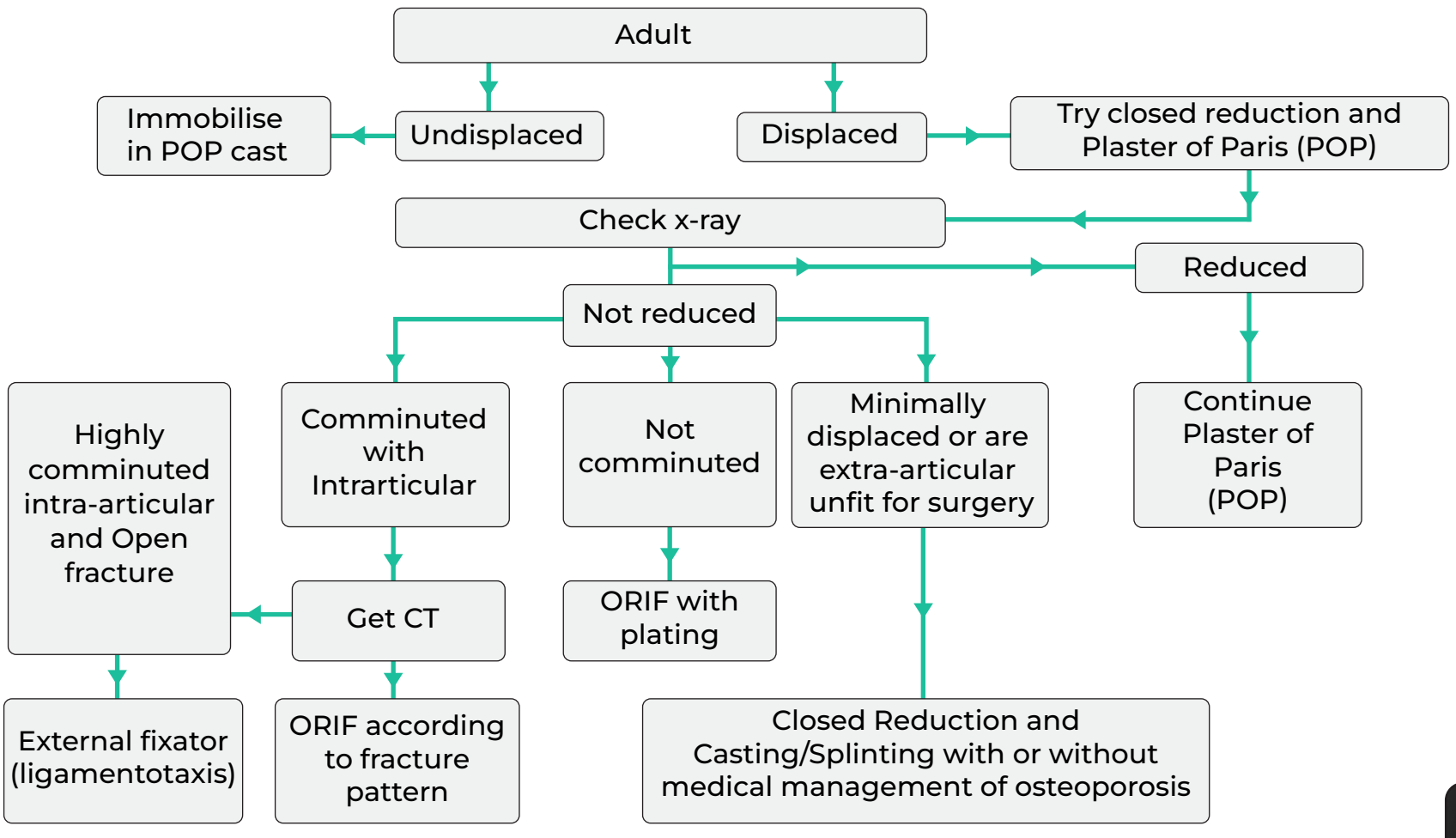
Simple fracture

1. Adequate analgesia
2. Immobilisation of the part

Open fracture

1. Look for Median nerve function, dysfunction/compartment syndrome
2. Distal radial and ulnar pulses
3. Rule out compartment syndrome

TRY INITIAL CLOSED REDUCTION IN ALL DISPLACED RADIUS FRACTURES



Guidelines for operative intervention

- Radial shortening of >3 mm
- Dorsal tilt of >10 [degrees]
- Intra-articular step-off of >2 mm

A majority of pediatric distal radius fractures are inherently stable and can be treated with a short period of immobilization with a cast or splint

Extra-articular distal radius fracture

FOLLOW UP

- Conservatively treated fractures are managed for 4-6 weeks in cast
- To check for fracture displacement, angulation subsidence and fracture healing, serial images are necessary at 1 week and 2 weeks follow up
- If fracture displaces in follow up, may require re-reduction/surgery
- Exercises should be initiated early (Shoulder, elbow and finger ROM during cast application and wrist ROM after removal of plaster)

ABBREVATIONS

AP: Antero-posterior
CT: Computed Tomography
ORIF: Open Reduction and Internal Fixation
ROM: Range of Motion

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KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES