

STANDARD TREATMENT WORKFLOW (STW)

FRACTURE DISTAL END RADIUS

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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

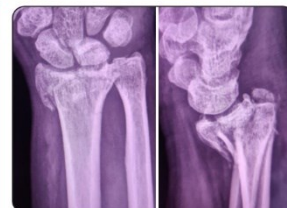
Essential: Radiographs of wrist AP, lateral and oblique views

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

Emergent referral

SECONDARY/TERTIARY CENTRE

Simple fracture

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RISK FACTORS	PRESENTATION	EXAMINATION
<ul style="list-style-type: none"> Old age Osteoporosis Female Post menopause 	<ul style="list-style-type: none"> Pain over distal radius Swelling and ecchymosis Deformity - commonly Dinner fork or spade Painful restriction of wrist motion 	<ul style="list-style-type: none"> Swelling and ecchymosis Deformity Tenderness Limited active and passive wrist motion

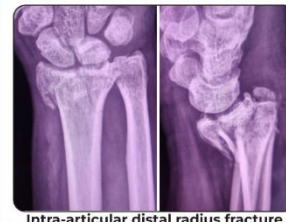
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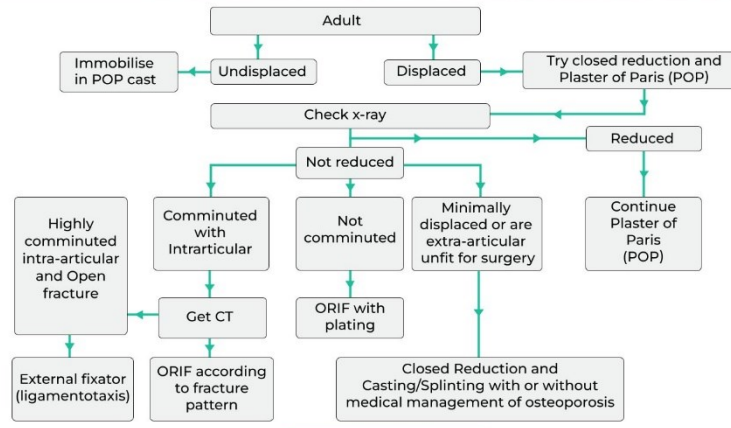
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MANAGEMENT		
<p>PRIMARY CARE</p> <p>Simple fracture</p> <p>Refer to higher centre after:</p> <ol style="list-style-type: none"> Adequate analgesia Immobilisation of the limb <p>Open fracture</p> <ol style="list-style-type: none"> Refer to open fracture STW 	<p>Emergent referral:</p> <p>Open fractures Neurovascular Deficit Concomitant trauma requiring immediate admission</p>	<p>SECONDARY/TERTIARY CENTRE</p> <p>Simple fracture</p> <ol style="list-style-type: none"> Adequate analgesia Immobilisation of the part <p>Open fracture</p> <ol style="list-style-type: none"> Look for Median nerve function, dysfunction/compartament syndrome Distal radial and ulnar pulses 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



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)

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

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KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES

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