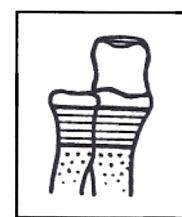
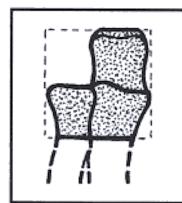
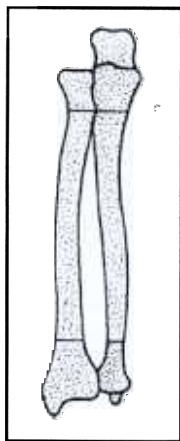


RADIUS/ULNA

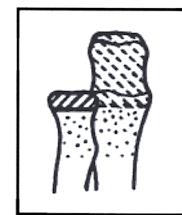
BONE:
RADIUS/ULNA (2)

Location:
Proximal segment (21)

Types:
A. Extra-articular (21-A)



B. Articular fracture involving articular surface of only one of the two bones (21-B)

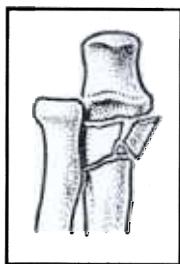
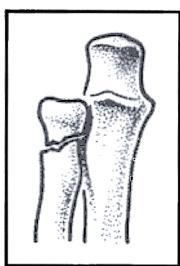
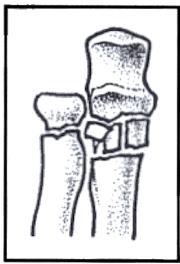


C. Articular fracture involving articular surface of two bones (21-C)

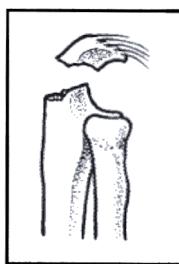
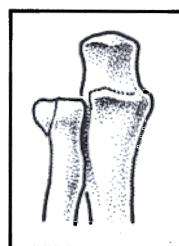
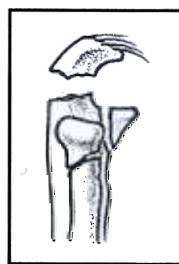


Groups:

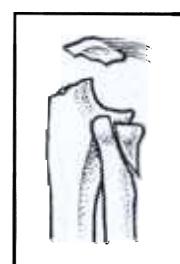
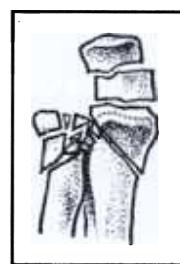
Radius/Ulna, proximal, extra-articular (21-A)

1. Ulna only (21-A1)**2. Radius only (21-A2)****3. Radius and ulna (21-A3)****A**

Radius/Ulna, proximal, articular surface one bone (21-B)

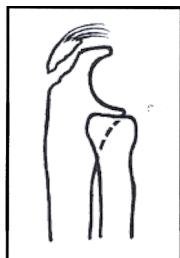
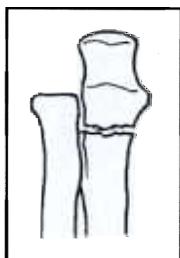
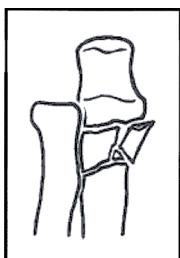
1. Ulna fractured, radius intact (21-B1)**2. Radius fractured, ulna intact (21-B2)****3. Articular of one bone, extra-articular of other (21-B3)****B**

Radius/Ulna, proximal, articular both bones (21-C)

1. Simple of both bones (21-C1)**2. Simple of one, multifragmentary of other (21-C2)****3. Multifragmentary of both (21-C3)****C**

Subgroups and Qualifications:

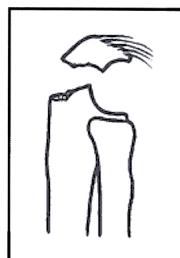
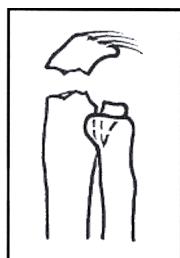
Radius/Ulna, proximal, extra-articular ulna fractured (21-A1)

1. Avulsion of triceps insertion from olecranon (21-A1.1)**2. Metaphyseal simple (21-A1.2)****3. Metaphyseal multifragmentary (21-A1.3)****A1**

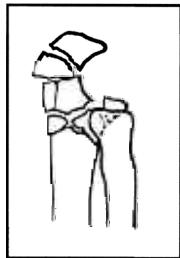
Radius/Ulna, proximal, articular fracture ulna (21-B1)

1. Unifocal (21-B1.1)

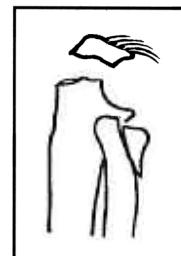
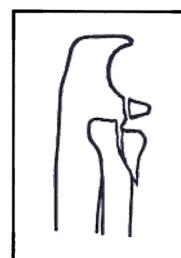
- (1) olecranon one line
- (2) olecranon two lines
- (3) olecranon multifragmentary
- (4) coronoid process alone

**2. Bifocal (21-B1.2)****3. Bifocal multifragmentary (21-B1.3)**

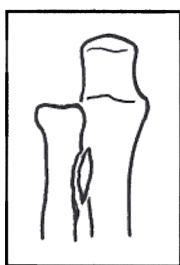
- (1) multifragmentary olecranon
- (2) multifragmentary coronoid process
- (3) multifragmentary of both

**B1**

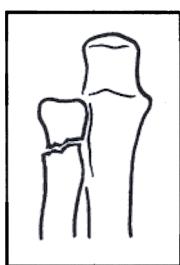
Radius/Ulna, proximal, articular both simple (21-C1)

1. Olecranon and radial head (21-C1.1)**2. Coronoid process and radial head (21-C1.2)****C1**

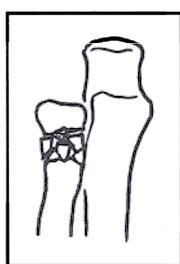
Radius/Ulna, proximal, extra-articular radius fractured (21-A2)
1. Avulsion of bicipital tuberosity of radius (21-A2.1)



2. Neck simple (21-A2.2)

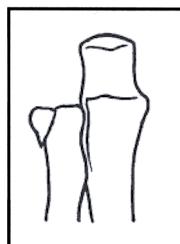


3. Neck multifragmentary (21-A2.3)

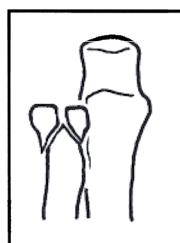


A2

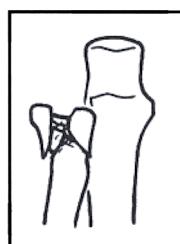
Radius/Ulna, proximal, articular, radial fracture (21-B2)
1. Simple (21-B2.1)
(1) non-displaced
(2) displaced



2. Multifragmentary without depression (21-B2.2)

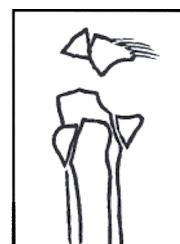


3. Multifragmentary with depression (21-B2.3)



B2

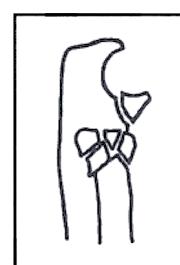
Radius/Ulna, proximal, articular, both bones, one simple the other multifragmentary (21-C2)
1. Olecranon multifragmentary, radial head, simple (21-C2.1)



2. Olecranon simple, radial head multifragmentary (21-C2.2)



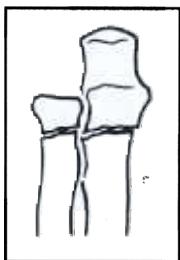
3. Coronoid process simple, radial head multifragmentary (21-C2.3)



C2

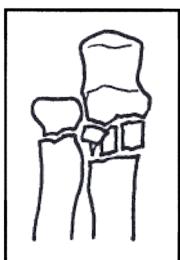
Radius/Ulna, proximal, extra-articular, fracture both bones (21-A3)

1. Simple of both bones (21-A3.1)

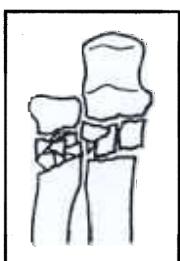


2. Multifragmentary of one bone and simple of other (21-A3.2)

- (1) multifragmentary ulna
- (2) multifragmentary radius



3. Multifragmentary of both bones (21-A3.3)

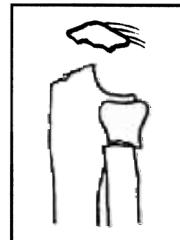


A3

Radius/Ulna, proximal, articular of one, extra-articular of other (21-B3)

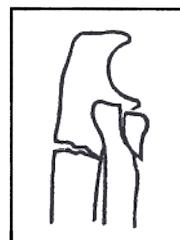
1. Ulna articular simple (21-B3.1)

- (1) radius extra-articular simple
- (2) radius extra-articular multifragmentary



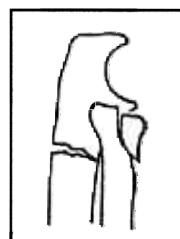
2. Radius articular simple (21-B3.2)

- (1) ulna extra-articular simple
- (2) ulna extra-articular multifragmentary



2. Articular multifragmentary (21-B3.3)

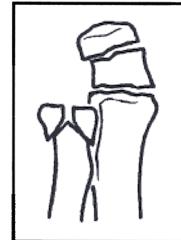
- (1) ulna, radius extra-articular simple
- (2) ulna, radius extra-articular multifragmentary
- (3) radius, ulna extra-articular simple
- (4) radius, ulna extra-articular multifragmentary



B3

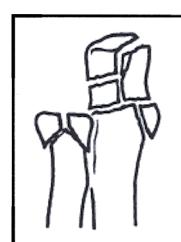
Radius/Ulna, proximal, articular multifragmentary both bones (21-C3)

1. Three fragments both bones (21-C3.1)



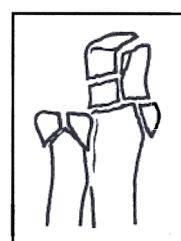
2. Ulna, more than 3 fragments (21-C3.2)

- (1) radius, 3 fragments
- (2) radius, more than 3 fragments



3. Radius, more than 3 fragments (21-C3.3)

- (1) ulna, 3 fragments
- (2) ulna, epiphysio-diaphyseal

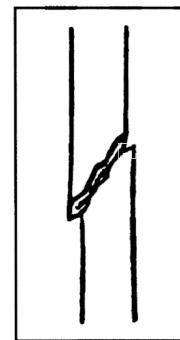
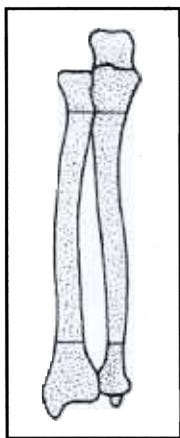


C3

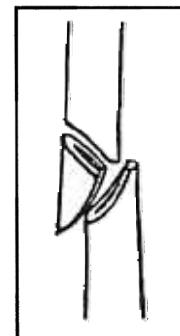
BONE:
RADIUS/ULNA (2)

Location:
Diaphyseal (22)

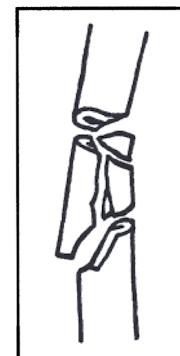
Types:
A. Simple (22-A)



B. Wedge (22-B)



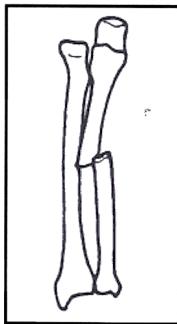
C. Complex (22-C)



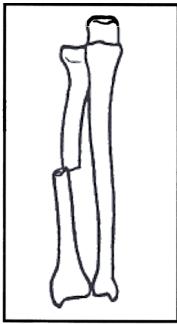
Groups:

Radius/ulna, diaphyseal, simple
(22-A)

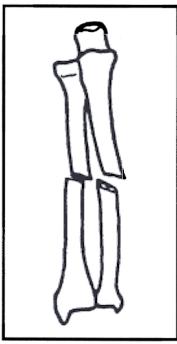
1. Ulna simple, radius intact
(22-A1)



2. Radius simple, ulna intact
(22-A2)

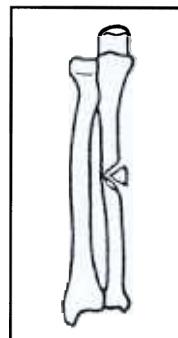


3. Simple fracture both bones
(22-A3)

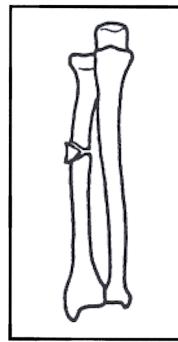
**A**

Radius/ulna, diaphyseal, wedge fracture (22-B)

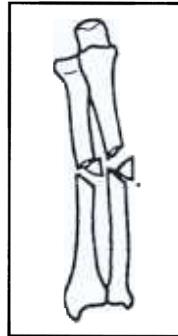
1. Ulna fracture, radius intact
(22-B1)



2. Radius fracture, ulna intact
(22-B2)



3. Wedge fracture, simple or wedge of other bone (22-B3)

**B**

Radius/ulna, diaphyseal, complex
(22-C)

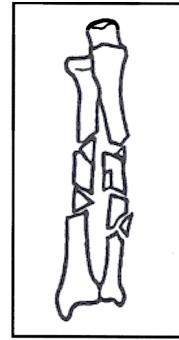
1. Complex of ulna (22-C1)



2. Complex of radius (22-C2)

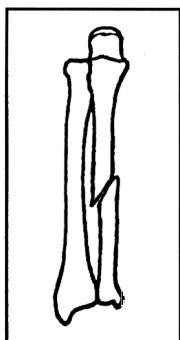
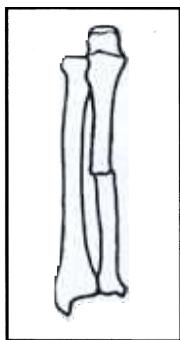
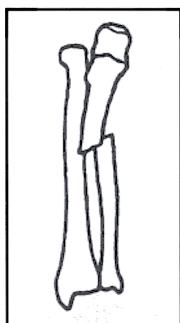


3. Complex of both bones (22-C3)

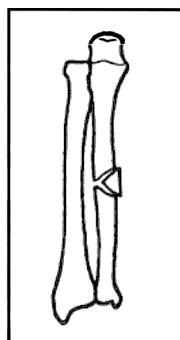
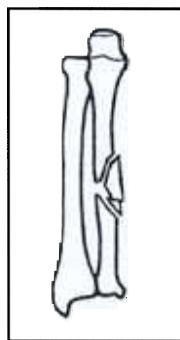
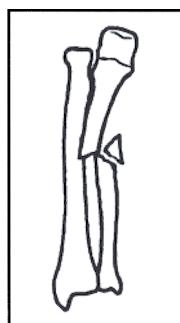
**C**

Subgroups and Qualifications:

Radius/ulna, diaphyseal, simple fracture of ulna (22-A1)

1. Oblique (22-A1.1)**2. Transverse (22-A1.2)****3. With dislocation of radial head (Monteggia) (22-A1.3)****A1**

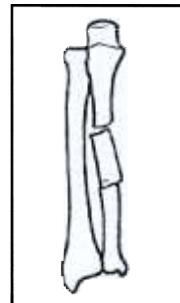
Radius/ulna, diaphyseal, wedge fracture of ulna (22-B1)

1. Intact wedge (22-B1.1)**2. Fragmented wedge (22-B1.2)****3. With dislocation of radial head (Monteggia) (22-B1.3)****B1**

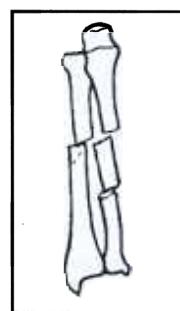
Radius/ulna, diaphyseal, complex fracture of ulna (22-C1)

1. Bifocal, radius intact (22-C1.1)

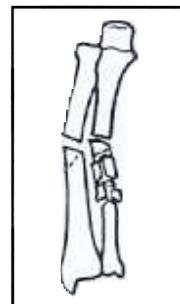
- (1) without dislocation
- (2) with radial head dislocated (Monteggia)

**2. Bifocal with radial fracture (22-C1.2)**

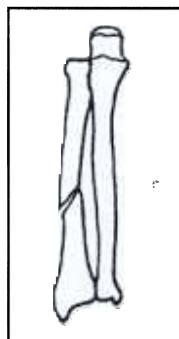
- (1) radius simple
- (2) radius wedge

**3. Irregular of ulna (22-C1.3)**

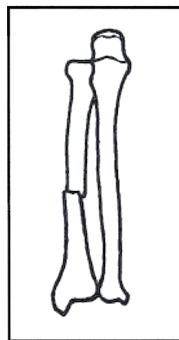
- (1) radius intact
- (2) radius simple
- (3) radius wedge

**C1**

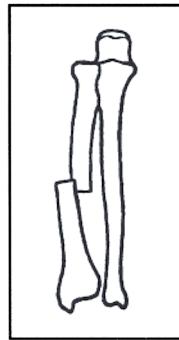
Radius/ulna, diaphyseal, simple fracture of radius (22-A2)
1. Oblique (22-A2.1)



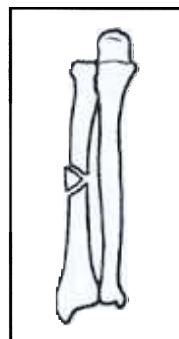
2. Transverse (22-A2.2)



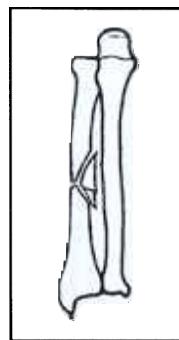
3. With dislocation of distal radio-ulnar joint (Galeazzi) (22-A2.3)



Radius/ulna, diaphyseal, wedge fracture of radius (22-B2)
1. Intact wedge (22-B2.1)



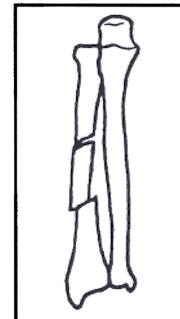
2. Fragmented wedge (22-B2.2)



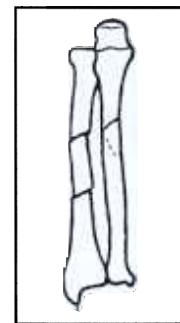
3. With dislocation of distal radio-ulnar joint (Galeazzi) (22-B2.3)



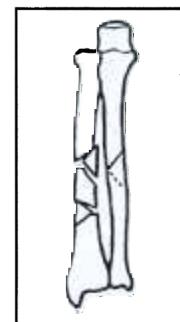
Radius/ulna, diaphyseal, complex fracture of radius (22-C2)
1. Bifocal, ulna intact (22-C2.1)
 (1) without dislocation
 (2) with dislocation of distal radio-ulnar joint (Galeazzi)



2. Bifocal, ulna fracture (22-C2.2)
 (1) simple ulna
 (2) wedge ulna



3. Irregular (22-C2.3)
 (1) ulna intact
 (2) ulna simple
 (3) ulna wedge



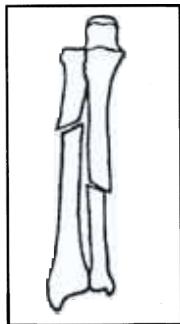
A2

B2

C2

Radius/ulna, diaphyseal, simple fracture of both bones (22-A3)
 (1) without dislocation
 (2) with dislocation of radial head (Monteggia)
 (3) with dislocation of distal radioulnar joint (Galeazzi)

(based on level of radial fracture)
1. Radius, proximal zone (22-A3.1)



2. Radius, middle zone (22-A3.2)



3. Radius, distal zone (22-A3.3)

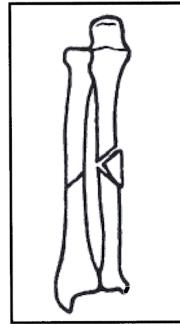


A3

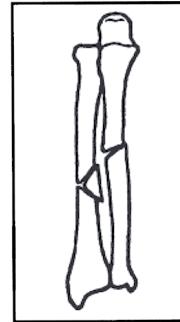
Radius/ulna, diaphyseal, wedge of one, simple or wedge of other (22-B3)

(1) without dislocation
 (2) with dislocation of radial head (Monteggia)
 (3) with dislocation of distal radioulnar joint (Galeazzi)

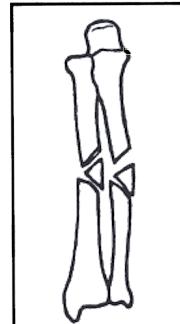
1. Ulna wedge, simple fracture radius (22-B3.1)



2. Radial wedge, simple fracture of ulna (22-B3.2)



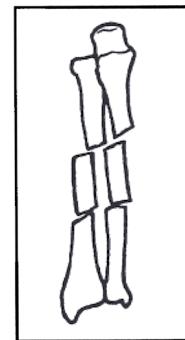
3. Radial and ulnar wedge (22-B3.3)



B3

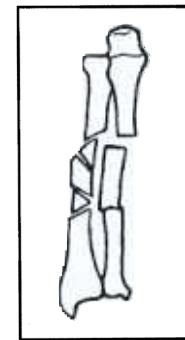
Radius/ulna, diaphyseal, complex of both bones (22-C3)

1. Bifocal (22-C3.1)

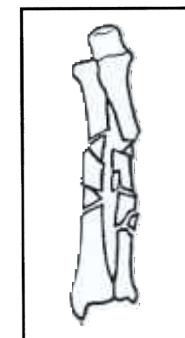


2. Bifocal of one, irregular of other (22-C3.2)

(1) bifocal radius, irregular ulna
 (2) bifocal ulna, irregular radius

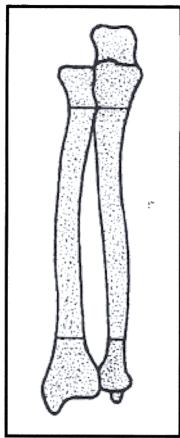


3. Irregular (22-C3.3)

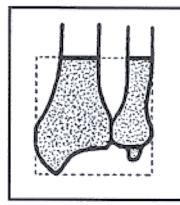


C3

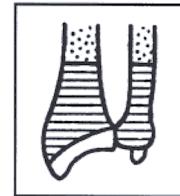
BONE:
RADIUS/ULNA (2)



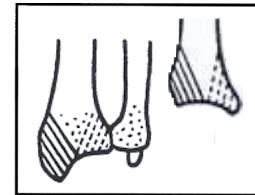
Location:
Distal segment (23)



Types:
A. Extra-articular (23-A)



B. Partial articular fracture of radius (23-B)



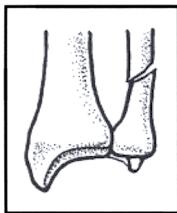
C. Complete articular fracture of radius (23-C)



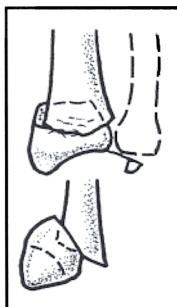
Groups:

Radius/ulna, distal, extra-articular (23-A)

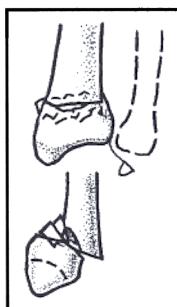
1. Extra-articular ulna fracture, radius intact (23-A1)



2. Extra-articular radius fracture, ulna intact (23-A2)

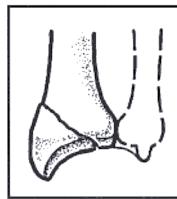


3. Extra-articular, multifragmentary radius fracture (23-A3)



Radius/ulna, distal, partial articular radius (23-B)

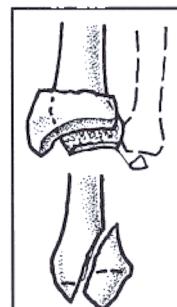
1. Partial articular radius, sagittal (23-B1)



2. Partial articular radius, dorsal rim (Barton) (23-B2)

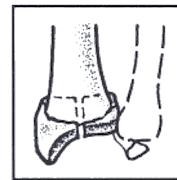


3. Partial articular radius, volar rim (reverse Barton, Goyrand Smith II) (23-B3)



Radius/ulna, distal, complete articular (23-C)

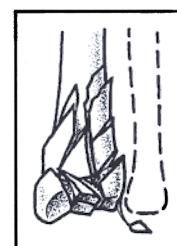
1. Complete articular radius, simple articular and metaphysis (23-C1)



2. Complete articular radius, simple articular, metaphyseal multifragmentary (23-C2)

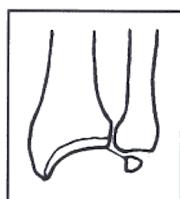
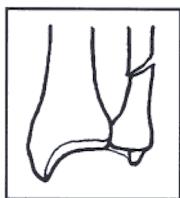


3. Complete articular radius, multifragmentary (23-C3)

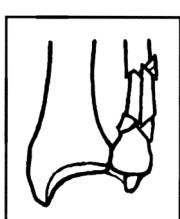
**A****B****C**

Subgroups and Qualifications:

Radius/ulna, distal, extra-articular fracture of ulna (23-A1)

1. Ulna styloid process (23-A1.1)**2. Metaphyseal simple (23-A1.2)****3. Metaphyseal multifragmentary (23-A1.3)**

- (1) wedge
- (2) complex

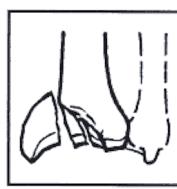


Radius/ulna, distal, partial articular fracture of radius, sagittal (23-B1)
 (1) radio-ulnar dislocation (fracture of styloid process)

- (2) simple fracture of ulnar neck
- (3) multifragmentary fracture of ulnar neck

(4) fracture of ulna head
 (5) fracture of ulna head and neck

- (6) fracture proximal to ulnar neck

1. Lateral simple (23-B1.1)**2. Lateral multifragmentary (23-B1.2)****3. Medial (23-B1.3)**

Radius/ulna, distal, complete articular fracture of radius, articular simple, metaphyseal simple (23-C1)

- (1) radio-ulnar dislocation (fracture of styloid process)
- (2) simple fracture of ulnar neck

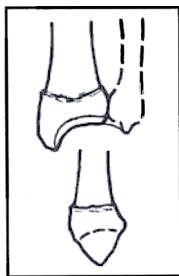
(3) multifragmentary fracture of ulnar neck

- (4) fracture of ulna head
- (5) fracture of ulna head and neck

(6) fracture proximal to ulnar neck

1. Postero-medial articular fragment (23-C1.1)**2. Sagittal articular fracture line (23-C1.2)****3. Frontal articular fracture line (23-C1.3)****A1****B1****C1**

Radius/ulna, distal, extra-articular fracture of radius, simple metaphyseal and impacted (23-A2)
 (1) radio-ulnar dislocation (fracture of styloid process)
 (2) simple fracture of ulnar neck
 (3) multifragmentary fracture of ulnar neck
 (4) fracture of ulna head
 (5) fracture of ulna head and neck
 (6) fracture proximal to ulnar neck
1. Transverse, no tilt, but may be axially shortened (23-A2.1)



2. With dorsal tilt, oblique fracture upward and back (Pouteau-Colles) (23-A2.2)



3. Volar tilt, oblique upwards and forward (Goyrand-Smith) (23-A2.2)

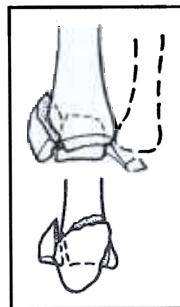


A2

Radius/ulna, distal, partial articular fracture of radius, dorsal rim (Barton's) (23-B2)
 (1) radio-ulnar dislocation (fracture of styloid process)
 (2) simple fracture of ulnar neck
 (3) multifragmentary fracture of ulnar neck
 (4) fracture of ulna head
 (5) fracture of ulna head and neck
 (6) fracture proximal to ulnar neck
1. Simple (23-B2.1)



2. With lateral sagittal fracture (23-B2.2)



3. With dorsal dislocation of carpus (23-B2.3)



B2

Radius/ulna, distal, complete articular fracture of radius, articular simple, metaphyseal multifragmentary (23-C2)
 (1) radio-ulnar dislocation (fracture of styloid process)
 (2) simple fracture of ulnar neck
 (3) multifragmentary fracture of ulnar neck
 (4) fracture of ulna head
 (5) fracture of ulna head and neck
 (6) fracture proximal to ulnar neck
1. Sagittal articular fracture line (23-C2.1)



2. Frontal articular fracture line (23-C2.2)



3. Extending into diaphysis (23-C2.2)



C2

Radius/ulna, distal, extra-articular fracture of radius, multifragmentary (23-A3)

- (1) radio-ulnar dislocation (fracture of styloid process)
- (2) simple fracture of ulnar neck
- (3) multifragmentary fracture of ulnar neck
- (4) fracture of ulna head
- (5) fracture of ulna head and neck
- (6) fracture proximal to ulnar neck

1. Impacted with axial shortening (23-A3.1)



2. With a wedge (23-A3.2)



3. Complex (23-A3.3)



A3

Radius/ulna, distal, partial articular fracture of radius, volar rim (reverse Barton's, Goyrand-Smith II) (23-B3)

- (1) radio-ulnar dislocation (fracture of styloid process)
- (2) simple fracture of ulnar neck
- (3) multifragmentary fracture of ulnar neck
- (4) fracture of ulna head
- (5) fracture of ulna head and neck
- (6) fracture proximal to ulnar neck

1. Simple with small fragment (23-B3.1)



2. Simple with larger fragment (23-B3.2)



3. Multifragmentary (23-B3.3)



B3

Radius/ulna, distal, complete articular fracture of radius, multifragmentary (23-C3)

- (1) radio-ulnar dislocation (fracture of styloid process)
- (2) simple fracture of ulnar neck
- (3) multifragmentary fracture of ulnar neck
- (4) fracture of ulna head
- (5) fracture of ulna head and neck
- (6) fracture proximal to ulnar neck

1. Metaphyseal simple (23-C3.1)



2. Metaphyseal multifragmentary (23-C3.2)



3. Extending into diaphysis (23-C3.3)



C3