Types:
A. Trochanteric area (31-A)

Groups:
1. Pertrochanteric simple (31-A1)
2. Pertrochanteric multifragmentary (31-A2)
3. Intertrochanteric (31-A3)

B. Neck fractures (31-B)
1. Subcapital with slight displacement (31-B1)
2. Transcervical (31-B2)
3. Subcapital with marked displacement (31-B3)

C. Head fractures (31-C)
1. Split (31-C1)
2. With depression (31-C2)
3. With neck fracture (31-C3)
Subgroups and Qualifications:
Femur, proximal, per trochanteric simple (only 2 fragments) (31-A1)
1. Along intertrochanteric line (31-A1.1)
2. Through the greater trochanter (31-A1.2)
   (1) nonimpacted
   (2) impacted
3. Below lesser trochanter (31-A1.3)
   (1) high variety, medial fracture line at lower limit of lesser trochanter
   (2) low variety, medial fracture line in diaphysis below lesser trochanter

Femur, proximal, trochanteric fracture, pertrochanteric multifragmentary (always have posteromedial fragment with lesser trochanter and adjacent medial cortex) (31-A2)
1. With 1 intermediate fragment (31-A2.1)
2. With several intermediate fragments (31-A2.2)
3. Extending more than 1 cm below lesser trochanter (31-A2.3)

Femur, proximal, trochanteric area, intertrochauteric fracture (31-A3)
1. Simple oblique (31-A3.1)
2. Simple transverse (31-A3.2)
3. Multifragmentary (31-A3.3)
   (1) extending to greater trochanter
   (2) extending to neck
Femur, proximal, neck fracture, slight displacement (31-B1)
1. Impacted in valgus ≥15° (31-B1.1) (Garden 1)
   (1) posterior tilt <15°
   (2) posterior tilt >15°
2. Impacted in valgus <15° (31-B1.2) (Garden 1/2)
   (1) posterior tilt <15°
   (2) posterior tilt >15°
3. Nonimpacted (31-B1.3) (Garden 2)

Femur, proximal, neck fracture, transcervical (31-B2)
1. Basicervical (31-B2.1)
2. Midcervical adduction (31-B2.2)
3. Midcervical shear (31-B2.3)

Femur, proximal, neck fracture, sub-capital, nonimpacted displaced (31-B3)
1. Moderate displacement in varus and external rotation (31-B3.1) (Garden 3)
2. Moderate displacement with vertical translation and external rotation (31-B3.2) (Garden 4)
3. Marked displacement (31-B3.3) (Garden 3/4)
   (1) in varus
   (2) with translation
Femur, proximal, head fracture, split (31-C1)
1. Avulsion of ligamentum teres (31-C1.1)
2. With rupture of ligamentum teres (31-C1.2)
3. Large fragment (31-C1.3)

Femur, proximal, head fracture, with depression (31-C2)
1. Posterior and superior (31-C2.1)
2. Anterior and superior (31-C2.2)
3. Split depression (31-C2.3)

Femur, proximal, head fracture with neck fracture (31-C3)
1. Split and transcervical neck fracture (31-C3.1)
2. Split and subcapital neck fracture (31-C3.2)
3. Depression and neck fracture (31-C3.3)
BONE: FEMUR (3)

Location: Diaphyseal segment (32)

Types:
A. Simple (32-A)
B. Wedge (32-B)
C. Complex (32-C)

Groups:
Femur, diaphyseal, simple fracture (32-A)
1. Spiral (32-A1)
2. Oblique (≥30°) (32-A2)
3. Transverse (<30°) (32-A3)

Femur, diaphyseal, wedge fracture (32-B)
1. Spiral wedge (32-B1)
2. Bending wedge (32-B2)
3. Fragmented wedge (32-B3)

Femur, diaphyseal, complex (32-C)
1. Spiral (32-C1)
2. Segmental (32-C2)
3. Irregular (32-C3)
Subgroups and Qualifications:
Femur, diaphyseal, simple spiral (32-A1)
1. Subtrochanteric zone (32-A1.1)
2. Middle zone (32-A1.2)
3. Distal zone (32-A1.3)

Femur, diaphyseal, simple oblique (≥30°) (32-A2)
1. Subtrochanteric zone (32-A2.1)
2. Middle zone (32-A2.2)
3. Distal zone (32-A2.3)

Femur, diaphyseal, transverse (<30°) (32-A3)
1. Subtrochanteric zone (32-A3.1)
2. Middle zone (32-A3.2)
3. Distal zone (32-A3.3)
Femur, diaphyseal, wedge spiral (32-B1)
1. Subtrochanteric zone (32-B1.1)
2. Middle zone (32-B1.2)
3. Distal zone (32-B1.3)

Femur, diaphyseal, wedge, bending (32-B2)
1. Subtrochanteric zone (32-B2.1)
2. Middle zone (32-B2.2)
3. Distal zone (32-B2.3)

Femur, diaphyseal, wedge fragmented (32-B3)
1. Subtrochanteric zone (32-B3.1)
2. Middle zone (32-B3.2)
3. Distal zone (32-B3.3)

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Femur, diaphyseal, complex spiral (32-C1)
1. With 2 intermediate fragments (32-C1.1)
2. With 3 intermediate fragments (32-C1.2)
3. With more than 3 intermediate fragments (32-C1.3)

Femur, diaphyseal, complex segmental (32-C2)
1. With 1 intermediate segmental fracture (32-C2.1)
(1) pure diaphyseal
(2) proximal diaphysio-metaphyseal
(3) distal diaphysio-metaphyseal
(4) oblique lines
(5) transverse and oblique lines
2. With 1 intermediate segmental and additional wedge fragments (32-C2.2)
(1) pure diaphyseal
(2) proximal diaphysio-metaphyseal
(3) distal diaphysio-metaphyseal
(4) distal wedge
(5) 2 wedges, proximal and distal
3. With 2 intermediate segmental fragments (32-C2.3)
(1) pure diaphyseal
(2) proximal diaphysio-metaphyseal
(3) distal diaphysio-metaphyseal

Femur, diaphyseal, complex irregular (32-C3)
1. With 2 or 3 intermediate fragments (32-C3.1)
(1) 2 main intermediate fragments
(2) 3 main intermediate fragments
2. With limited shattering (<5cm) (32-C3.2)
(1) proximal zone
(2) middle zone
(3) distal zone
3. With extensive shattering (≥5cm) (32-C3.3)
(1) pure diaphyseal
(2) proximal diaphysio-metaphyseal
(3) distal diaphysio-metaphyseal
BONE: FEMUR (3)

Location: Distal segment (33)

Types:
A. Extra-articular (33-A)
B. Partial articular (33-B)
C. Complete articular (33-C)

Groups:
Femur, distal, extra-articular (33-A)
1. Simple (33-A1)
2. Metaphyseal wedge (33-A2)
3. Metaphyseal complex (33-A3)
Femur, distal, partial articular (33-B)
1. Lateral condyle, sagittal (33-B1)
2. Medial condyle, sagittal (33-B2)
3. Frontal (33-B3)
Femur, distal, complete articular (33-C)
1. Articular simple, metaphyseal simple (33-C1)
2. Articular simple, metaphyseal multi-fragmentary (33-C2)
3. Multifragmentary articular fracture (33-C3)
Subgroups and Qualifications:
Femur, distal, extra-articular simple (33-A1)
1. Apophyseal (33-A1.1)
   (1) avulsion lateral epicondyle
   (2) avulsion medial epicondyle
2. Metaphyseal oblique or spiral (33-A1.2)
3. Metaphyseal transverse (33-A1.3)

Femur, distal, extra-articular, metaphyseal wedge (33-A2)
1. Intact wedge (33-A2.1)
   (1) lateral
   (2) medial
2. Fragmented lateral (33-A2.2)
3. Fragmented medial (33-A2.3)

Femur, distal, extra-articular, metaphyseal complex (33-A3)
1. With an intermediate split segment (33-A3.1)
2. Irregular limited to metaphysis (33-A3.2)
3. Irregular extending to diaphysis (33-A3.3)
Femur, distal, partial articular, lateral condyle, sagittal (33-B1)
1. Simple through the notch (33-B1.1)
2. Simple through load bearing surface (33-B1.2)
3. Multifragmentary (33-B1.3)

Femur, distal, partial articular, medial condyle, sagittal (33-B2)
1. Simple through notch (33-B2.1)
2. Simple through load bearing surface (33-B2.2)
3. Multifragmentary (33-B2.3)

Femur, distal, partial articular, frontal (33-B3)
1. Anterior and lateral flake fracture (33-B3.1)
2. Unicondylar posterior (Hoffa) (33-B3.2)
   (1) lateral
   (2) medial
3. Bicondylar posterior (33-B3.3)
Femur, distal, complete articular, articular simple, metaphyseal simple (33-C1)
1. T- or Y-shaped with slight displacement (33-C1.1)
2. T- or Y-shaped with marked displacement (33-C1.2)
3. T-shaped epiphyseal (33-C1.3)

Femur, distal, complete articular, articular simple, metaphyseal multifragmentary (33-C2)
1. With intact wedge (33-C2.1)  
   (1) lateral  
   (2) medial  
2. With fragmented wedge (33-C2.2)  
   (1) lateral  
   (2) medial  
3. Complex (33-C2.3)

Femur, distal, complete articular, articular multifragmentary (33-C3)
1. Metaphyseal simple (33-C3.1)  
2. Metaphyseal multifragmentary (33-C3.2)  
3. Metaphysio-diaphyseal multifragmentary (33-C3.3)