

Universe Of Adult Patients With Knee Injury — Phase I

A Significant History

- Acute onset of pain within 72 hours of injury
- Audible pop and immediate swelling with twisting or forced hyperextension
- Direct blow to anterior tibia, forced hyperextension, or axial load
- Direct blow to medial or lateral aspect of knee
- Varus or valgus stress to knee
- Twisting injury -- painful popping and catching, delayed swelling
- Direct blow to patella or hyperflexion
- Prior knee surgery
- Osteoporotic risk factors or age > 55 years

B Significant Physical Examination

- Effusion or acute swelling
- Patellar tenderness or abnormal position
- Tenderness of lateral or medial aspect of knee or of head of fibula
- Joint line tenderness or positive McMurray's test
- Inability to straighten knee or flex knee > 90°
- Inability to perform straight-leg raise
- Positive Lachman's test
- Positive posterior drawer test
- Valgus or varus joint instability
- Inability to bear weight 4 steps without assistance

C Exclusionary Diagnosis

- Limb ischemia
- Joint violation or penetrating trauma
- Deep venous thrombosis
- Septic arthritis

D Imaging

Indications for Plain Radiographs

- Obvious deformity
- Effusion or instability
- Tenderness in head of fibula
- Isolated patellar tenderness
- Inability to flex knee >90°
- Inability to bear weight 4 steps without assistance
- Osteoporotic risk factors or age > 55 years

Significant Plain Radiographs

- AP
- Lateral
- Tangential view of patellofemoral joint (Merchant view) at 30° knee flexion

E Major Fracture

- Supracondylar femur
- Patella
- Tibial plateau (weight-bearing surface)
- Obvious tibiofemoral dislocation

F Findings CONSISTENT with Diagnosis

Ligamentous Injury (incomplete)
Twisting injury or valgus injury, immediate swelling or effusion, hyperextension; negative Lachman's and/or drawer signs; minimal or no varus/valgus instability

Ligamentous Injury (complete)
Immediate swelling or effusion; twisting injury, hyperextension, or audible pop; positive Lachman's and/or posterior drawer; varus or valgus joint instability; avulsion fracture off tibial femur

Meniscal Tear
Delayed swelling; twisting injury; painful popping and catching; effusion; joint line tenderness; positive McMurray's test; negative radiograph

Patellar Dislocation/Subluxation
Direct blow to patella or hyperflexion; twisting injury; effusion; patellar tenderness or deformity; avulsion fracture off patella; negative radiograph

Contusion
Direct blow to knee; localized swelling and tenderness; negative radiograph

Patella or Quadriceps Tendon Rupture
Audible pop; immediate swelling; inability to perform straight-leg raise; patellar deformity

G Initial Treatment

- Rest
- Ice
- Analgesics
- Immobilization within the first 3-5 days *prn*
- Crutches *prn*
- Straight-leg raise exercises
- Active range-of-motion exercises within 3-5 days, as pain allows

H Response Criteria

Good

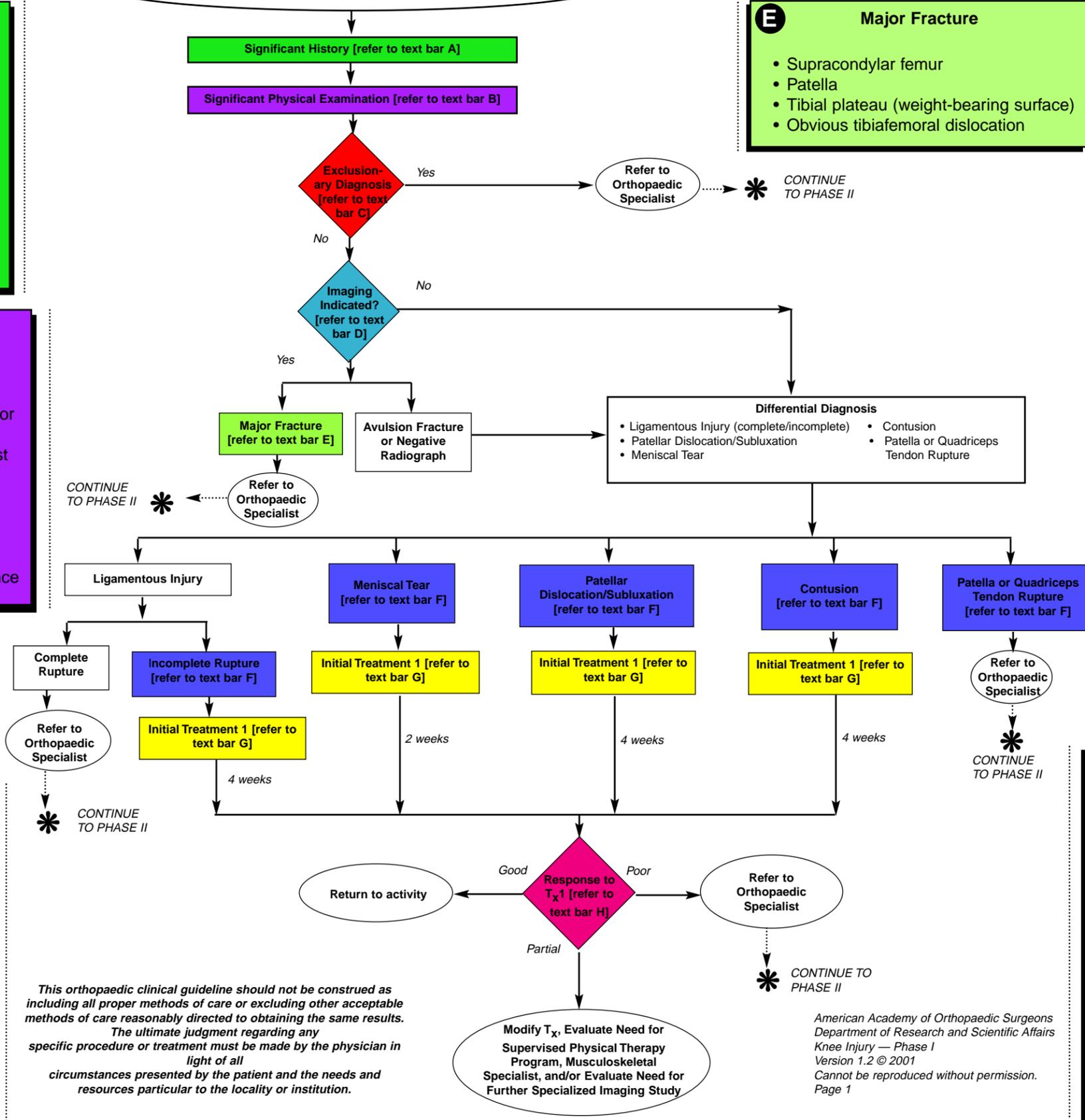
- Patient satisfied with outcome
- Patient function normal
- Normal range of motion
- No swelling or tenderness

Partial

- Patient satisfied with progress
- Patient function improving
- Swelling and tenderness improving
- Inability to bear weight

Poor

- Patient dissatisfied with outcome
- Patient function unimproved or worsened
- Persistent swelling
- Inability to bear weight
- Incomplete extension or less than 90 degrees flexion



This orthopaedic clinical guideline should not be construed as including all proper methods of care or excluding other acceptable methods of care reasonably directed to obtaining the same results. The ultimate judgment regarding any specific procedure or treatment must be made by the physician in light of all circumstances presented by the patient and the needs and resources particular to the locality or institution.