Injections of the Knee and Shoulder: Best Practices Checklist

* Determine indications for injection or aspiration (if necessary)
  + Arthritis, tendinitis, bursitis unresponsive to other conservative measures
  + Effusion of joint
* Determine any contraindications
  + Overlying soft tissue infection, joint prosthesis, etc.
* Obtain informed consent from patient discussion benefits and risks
  + Most significant risks include **septic arthritis/infection**, neurovascular damage, soft tissue atrophy from steroid, post-injection flare, transiently elevated blood glucose
* Choose anesthetic, corticosteroid
  + Ropivacaine, lidocaine, bupivacaine, etc.
  + Triamcinolone, betamethasone, methylprednisolone, dexamethasone, etc.
* Prepare syringe/needle with aseptic technique
  + Alcohol swab vials, use single-dose vial if possible, switch needle between drawing up medication and injection
  + Ensure proper length, gauge of needle(s) for site of injection, and whether aspiration will be performed
* Prepare site for injection
  + Determine appropriate anatomic landmarks, mark site with skin indentation
  + Prepare site with chlorhexidine or povidone-iodine
  + Utilize “no-touch” or sterile technique following site preparation
* Perform injection/aspiration
  + Consider topical anesthesia with ethyl-chloride spray and/or subcutaneous anesthetic injection
  + Withdraw plunger to confirm that needle is not intravascular, and to see if there is synovial fluid show (if intraarticular)
  + Ensure free flow of fluid into the space, injecting relatively slowly
* Post-procedural care
  + Ensure hemostasis, place adhesive bandage over the site
  + Consider fluid analysis in case of aspiration