

Procedure	Level	Nonoperative/Preoperative	Intraoperative	Postoperative
Over-the-wire tube exchange	1: Limited Participation Demonstrates basic understanding of how the tools operate. Has very basic skills. Framework: What a learner directly out of medical school should know. The attending shows and tell during the procedure.	-Demonstrates an understanding of the procedural indications. -Able to identify relevant findings on imaging . -Obtains an H&P inclusive of basic focused exam, understands causes of high and low output tubes -Aware of SIR guidelines for preprocedural labs and/or antibiotics. -Respectfully communicates basic facts of the procedure but inconsistently discusses potential alternatives	-assists with preparation of sterile procedural field -maintains a sterile field -Be able to identify tube to be addressed on imaging -Be able to identify undrained adjacent collections and fistula to bowel.	-Explains the post-procedure basics to the pateint and referring team but needs prompting to cover post-procedure care plan and next steps - Unfamiliar with post drainage complication and needs attending direction for next step of care
	2: Direct Supervision Demonstrates an understanding of the steps of the procedure but requires direction to accomplish in a safe manner Framework: The learner can use the tools but may not know exactly how, what or where to do it. The attending actively helps throughout the case to maintain forward progression.	-Able to identify the tube and adjacent anatomy on pre-procedural imaging with minimal attending direction -Demonstrates an understanding of the indications, and potential complications of simple tube exchanges -Respectfully communicates facts of procedure and discusses potential outcomes or alternatives for straightforward cases but may need direction for more complicated cases	-able to prepare a sterile field and position the patient appropriately only needing minimal direction from the attending -familiar with the available tubes and appropriate wires for exchange -Performs a contrast tube study and identifies location -able to advance a wire into and through the tube to be changed into the target space. May need attending direction to redirect wire into an undrained space or collection, -Selects an appropriate tube for replacement. -Replaces and secures tube with little direction. -May need help with appropriate tube follow up, scheduling, and communication with referring service	-Explain the procedure to the patient and team with appropriate post-procedure care plan and signs of complication -Understand and identify post tube change complications and can initiate intervention, but need attending direction for plan progression

	3. Indirect Supervision Can do a basic, straightforward Over the wire tube exchanges but may not recognize abnormalities or nuances of a more advanced case Framework: The learner can perform straightforward exchanges. The attending gives passive help. This passive help may be given with the attending scrubbed in for more advance changes or during a check-in for more routine biopsies.	-Understands the role of tube drainage in various organ systems. -Demonstrates an understanding of the indications, contraindications and potential complications and alternatives of drainage, -Respectfully communicates facts of procedure and discusses potential complications or alternatives with the patient or family member	-independently selects wire and new drainage catheter independently -facile with the tools -successfully guides a junior resident in performing a straightforward tube exchange -may need passive help in performing more difficult tube exchanges (Biliary, Nephroureteral)	-Explain and execute the post procedure plan to the patient and team including follow up care -Manage post tube change complication with attending assistance. Offers solutions for fistula management. Independently coordinates follow-up and team communication in multidisciplinary cases.
	4. Practice Ready Can perform advanced exchange cases and manage post complications Framework: The learner can perform all straightforward exchanges and most advanced cases and can manage complications independently The attending is available as needed but is not routinely needed	-Understands causes of tube dysfunction or malposition specific to abscess / space/ organ system involved -Demonstrates an understanding of the indications, urgency and alternatives to tube exchange -Respectfully communicates facts of procedure and discusses potential solutions or alternatives with the referring service.	-Able to reposition complex drainage tubes in various organ systems without losing access. -Able to change occluded and encrusted tubes using specialty wires -Identifies fistulas and adjusts tubes appropriately.	Independently schedules and maintains chronic tubes Can discuss alternatives to chronic tube drainage of complex drainage scenarios with a multidisciplinary team.