I. INTRODUCTION
This policy sets expectations for the safe performance of procedures by graduate trainees. The policy covers those procedures performed by graduate trainees from more than one discipline.

II. SCOPE
Graduate training programs governed by the Graduate Medical Education Committee (GMEC) of Lehigh Valley Health Network (LVHN)

III. DEFINITIONS
Procedure – an invasive procedure that is performed by graduate trainees, with or without sedation or anesthesia.

Non-emergency – any non-emergent situation in which there is adequate time to notify the supervising physician (attending or senior graduate trainee prior to the procedure.)

Graduate Trainee – graduate trainees employed by LVHN or serving as visiting graduate trainees.

Operator – the individual performing the invasive procedure

Supervisor – the individual supervising the operator. This may be an attending physician or PGY2 - PGY5 graduate trainees who have completed documentation of procedural competency may serve as supervisors for junior graduate trainees. A resident is not authorized to supervise a procedure independently if he/she has not submitted documentation of his/her minimum number of directly supervised procedures. The supervisor may directly supervise by traditional bedside observation or via the advanced intensive care unit direct camera visualization method.

IV. POLICY
1) Graduate trainees perform invasive procedures as part of their duties. The aim of this policy is to set expectations that balance patient safety with gradual progression toward independent practice. True procedural competency is achieved through a series of steps that include: didactics, video demonstrations, simulation, directly supervised performance of the procedure, performance with supervision readily available and independent performance of the procedure. This policy sets the minimum number of directly observed procedures to ensure patient safety. The following invasive procedures cross specialties and require monitoring and documentation of supervision:

- subclavian central venous catheter placement
- internal jugular central venous catheter placement
- femoral central venous catheter placement
- Swan-Ganz central venous catheter placement
- arterial line insertion
- tube thoracostomy (chest tube) insertion
- endotracheal intubation

2) All invasive procedures above should be discussed with the responsible supervisor prior to performance if possible as dictated by the patient’s stability. Emergency procedures should be discussed with the responsible attending as soon as reasonably possible either prior to or following completion of the procedure;

3) The minimum for directly supervised procedures that the resident is required to perform is 5 of each of the above-mentioned invasive procedures, under direct supervision, with documentation of a successful procedure without complications. The resident may then perform the procedure with indirect oversight, with the understanding that at any time they may request assistance from a more experienced resident, fellow or attending physician.

4) All procedures are expected to be logged, with electronic logging as the preferred method.
   a. The resident will enter identifying information, the procedure complete and date along with the name of the supervising physician.
   b. The supervising physician will confirm that the procedure was performed satisfactorily.
   c. Graduate trainees will continue to log procedures, but the first 5 are to be directly supervised. Fellows may have achieved competency during their residency and may submit documentation and/or demonstrate competency to their fellowship program director.
   d. In cases where the supervising physicians do not have access to New Innovations, other methods of documentation are acceptable, but data entry into New Innovations is strongly encouraged.

5) Certain didactic and hands-on courses are required by all graduate trainees prior to performing procedures at LVHN. These are listed below. Other procedural training is covered by individual residencies.
   a. The LVHN Central Venous Catheter Insertion Course.

Approved by the Graduate Medical Education Committee
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