

**YALE UNIVERSITY  
SCHOOL OF MEDICINE**

Guidelines for Performance of Invasive Procedures by Medical Students

Yale-New Haven Hospital is a teaching hospital where students are taught clinical medicine through integration with the health care team in a hands-on approach. The expectation is that students will perform invasive medical procedures with appropriate training and supervision just as they will perform histories and physical examinations.

1. If a procedure needs to be done and the intern or resident has not gained adequate experience with that procedure, the intern or resident should be supervised in performing the procedure before the medical student.
2. The following is a list of common invasive procedures a medical student may do with appropriate supervision. Procedures categorized by level of risk of injury to the patient are:

*Low Risk*

- Phlebotomy
- IV placement
- Blood cultures
- Urinary catheter
- Splinting

*Moderate Risk*

- Lumbar Puncture
- Joint Tap
- NG tube placement
- Suturing
- Bone marrow biopsy
- Skin biopsy
- Arterial blood gas

*High Risk*

- Central line placement
- Arterial line placement
- Paracentesis
- Thoracentesis
- Intubation

The degree of risk may vary depending on the circumstances. For example, inserting a urinary catheter may be low risk, but in some cases insertion may be difficult and traumatic

requiring urology supervision. Also, while venous cannulation for blood cultures may be low risk, the importance of sterile technique may require a higher level of supervision than simple phlebotomy.

3. The first time any procedure is performed on a patient, the student should be adequately and appropriately supervised. What constitutes adequate and appropriate supervision depends on the level of risk of the procedure. For example, phlebotomy or IV placement could be supervised by an intern or a nurse, but central line or arterial line placement should be supervised by a fellow or highly experienced resident. In all cases, the supervisor should have a level of expertise with the procedure that allows him or her to perform it comfortably and independently.
4. Students performing high risk and most moderate risk procedures should always be supervised. Exceptions would be NG tube placement and suturing. A student who wants to be supervised for any procedure should be, and no student who feels uncomfortable should ever be made to feel pressured to do it without supervision.
5. No invasive procedures should be performed post call or if the student feels fatigued for any reason.
6. Students should not perform a procedure for the first time on a patient known to be positive for HIV or HCV PCR detectable or perform procedures on known HIV or HCV PCR detectable patients until they feel very comfortable with the procedure. In general, they should not do procedures on such patients for the first 6 months. Standard precautions should be followed at all times regardless of the HIV or HCV status of the patient.
7. All moderate and high risk procedures must be documented with a complete procedure note in the chart.
8. It may not be suitable for students to perform procedures on patients in the intensive care units due to the severity of their illness and unstable condition. Patient safety is the primary consideration. At the discretion of the nurse manager/charge nurse, or attending physician, a student may be asked not to perform the procedure.