

## **UT SOUTHWESTERN DEPARTMENT OF SURGERY TECHNICAL SKILLS COURSE OUTLINE**

Course Title: Vascular ligation and patch angioplasty

Course Director: Name: R. James Valentine, MD, FACS  
Specialty: Vascular Surgery

Additional Course Faculty: Name: N/A  
Specialty

Participants: Specialty: General Surgery Categorical Residents  
Level: PGY-4  
Number: 11

Training Duration: Time 1.5 hrs  
Repetition-based 15-20 suture reps  
Proficiency-based \_\_\_\_\_ score

Location: J-9 OR

Equipment/Simulators: Suture boards, PTFE grafts, Dacron grafts, binder clips, 5-0 prolene suture, needle drivers, forceps, suture scissors, ex vivo porcine model

Other Resources (Textbooks, CD-ROMS, Videos, etc): N/A

Educational Scope: Skills: Creation of a patch angioplasty on an arterial model using PTFE graft and Dacron grafts

Cognitive: Teaching anatomic exposure of specific arteries

Judgment: understanding which vascular structures are appropriate to ligate; understanding when to perform a patch angioplasty

Learning Objectives:

- 1) understand the basics of anatomic exposure of the following arteries:  
innominate, left and right subclavian, axillary, and carotid
- 2) understand contraindications to arterial and venous ligation
- 3) understand indications for patch angioplasty
- 4) demonstrate patch angioplasty on an arterial model

Summary of Curriculum, Teaching Methods, and Resource Utilization:

1. Preliminary seminar session led by faculty.

- a. Teach the anatomy of vascular exposure of the following arteries: innominate, left and right subclavian, axillary, carotid
- b. Discuss the contraindications to vascular ligation.
- c. Discuss the indications for patch angioplasty, types of patches, and technical aspects of patch creation.
- d. Draw the patch angioplasty.

2. Skill session. Two residents/suture board. One acts as surgeon and the other acts as assistant, then switch.

Methods for giving feedback to learners (Formative and Summative):

Direct observation with immediate feedback. The faculty observes each team throughout the session and comments on individual performance.

Methods for Assessment of Learners:

Questions to assess learning cognitive information.  
Direct observation of skill with immediate feedback.

Methods for Course Evaluation:

By Learners: E-Values online  
By Faculty: E-Values online