

STANDARDIZED PROCEDURE

SAPHENOUS VEIN HARVESTING (Adult)

I. Definition

The saphenous vein is a commonly used conduit in coronary artery bypass grafting. It is easily identified at the medial aspect of the ankle, just anterior to the malleolus. This vein offers the surgeon a conduit which is long enough in length to provide several grafts. It is easily harvested and the incidence of complication is low.

II. Background Information

A. Setting:

The setting (inpatient vs outpatient) and population (adults vs pediatrics) for the Advanced Health Practitioner (AHP) is determined by the approval of the privileges requested on the AHP Privilege Request Form. If the procedure is being done on a Pediatric patient, make sure Child Life is involved and use age appropriate language and age appropriate developmental needs with care of children, as appropriate to the situation.

B. Supervision: The necessity of this protocol will be determined by the Advanced Health Practitioner in collaboration with the supervising physician or his/her designee. Designee is defined as another attending physician who works directly with the supervising physician and is authorized to supervise the Advanced Health Practitioner.

Direct supervision will not be necessary once competency is determined, as provided for in the protocol. The Advanced Health Practitioner will notify the physician immediately upon being involved in any emergency or resuscitative events or under the following circumstances:

1. Patient decompensation or intolerance to the procedure
2. Bleeding that is not resolved
3. Outcome of the procedure other than expected

C. Indications:

Indicated in coronary artery bypass grafting as conduits.

D. Precautions/Contraindications:

The contraindications for vein harvesting would be a patient having had "vein stripping" procedures, previous vein harvesting, and the identification of vein sclerosis or thrombosis by visual inspection.

III. Materials

A surgical instrument pouch for saphenous vein harvesting is provided in the coronary artery bypass tray and is a separate from those instruments used in the chest.

IV. Procedure: Saphenous vein harvesting

A. Pre-treatment evaluation

STANDARDIZED PROCEDURE
SAPHENOUS VEIN HARVESTING (Adult)

Physical inspection of the legs and occasionally vein mapping doppler study for obese patients.

B. Set up (if applicable)

After sterile prep and drape in the usual fashion for a coronary artery bypass case all instruments are provided to the operator. The knee is slightly raised and abducted to allow access to the vein, the vein is identified and incision is made.

C. Patient Preparation

Shaving the legs, bilaterally, from the ankle to the groin. Chlorhexadine or duraprep painting, circumferentially. Perform a time out prior to the procedure with all appropriate steps.

D. Procedure

1. Identify the saphenous vein distally, make an incision adjacent to the vein, dissect to visually identify the vein then begin to expose the vein by surgical incision to the desired length.
2. The vein is then sharply dissected and freed completely from the surrounding tissue.
3. Side branches are tied with 4-0 silk on the vein side and surgical clips are placed adjacently. The branch is divided.
4. Once the vein is free, surgical clips and ties are placed on the distal and proximal ends and these areas are transected.
5. A vein catheter is introduced into the distal end of the saphenous vein, tied in place and heparinized saline is injected to identify any leaks that need repair.
6. The vein is repaired with sutures according to Attending's preference.
7. The vein is then flushed with cold heparinized blood and placed in a small cup of the same solution until ready for use.

E. Post-procedure

1. The incision is closed in 2 or 3 layers and depending on the amount of surgical bleeding a JP drain may be placed for 24 hours.
2. The incision is dressed and then wrapped, circumferentially, with an elastic bandage, from the ankle to the groin.

F. Follow-up treatment

1. The dressings are removed POD #1 and the leg is inspected.
2. If staples were placed, they are removed prior to discharge and steri-strips are placed.
3. A visual inspection is made upon return to the post-op clinic 2 weeks after discharge.
4. The patients are encouraged to keep their feet elevated while sitting and to call the Cardiothoracic office with any signs of infection or poor wound healing.

G. Termination of treatment

STANDARDIZED PROCEDURE
SAPHENOUS VEIN HARVESTING (Adult)

When discharged from post op clinic.

V. Documentation

A. Documentation is in the electronic medical record

1. Documentation of the pretreatment evaluation and any abnormal physical findings.
2. Operative note by Attending Physician

B. All abnormal findings are reviewed with supervising physician.

VI. Competency Assessment

A. Initial Competence

1. The Advanced Health Practitioner will be instructed on the efficacy and the indications of this therapy and demonstrate understanding of such.
2. The Advanced Health Practitioner will demonstrate knowledge of the following:
 - a. Medical indication and contraindications of saphenous vein harvesting
 - b. Risks and benefits of the procedure
 - c. Related anatomy and physiology
 - d. Consent process (if applicable)
 - e. Steps in performing the procedure
 - f. Documentation of the procedure
 - g. Ability to interpret results and implications in management.
3. Observe attending surgeon, Sr PA or designee for three procedures. Assist attending surgeon for three procedures. Perform procedure with attending surgeon for **three** procedures.
4. Supervising physician will document Advanced Health Practitioner's competency prior to performing procedure without direct supervision.
5. The Advanced Health Practitioner will ensure the completion of competency sign-off documents and provide a copy for filing in their personnel file and a copy to the medical staff office for their credentialing file.

B. Continued proficiency

1. The Advanced Health Practitioner will demonstrate competence by successful completion of the initial competency.
2. Each candidate will be initially proctored and signed off by an attending physician. Advanced Health Practitioner must perform this procedure at least **three** times per year. In cases where this minimum is not met, the attending, must again sign off the procedure for the Advanced Health Practitioner. The

STANDARDIZED PROCEDURE
SAPHENOUS VEIN HARVESTING (Adult)

Advanced Health Practitioner will be signed off after demonstrating 100% accuracy in completing the procedure.

3. Demonstration of continued proficiency shall be monitored through the annual evaluation.
4. A clinical practice outcomes log is to be submitted with each renewal of credentials. It will include the number of procedures performed per year and any adverse outcomes. If an adverse outcome occurred, a copy of the procedure note will be submitted.

VII. RESPONSIBILITY

Questions about this procedure should be directed to the Chief Nursing and Patient Care Services Officer at 353-4380.

VIII. HISTORY OF PROCEDURE

Revised Sept 2012 by Subcommittee of the Committee for Interdisciplinary Practice

Reviewed Sept 2012 by the Committee on Interdisciplinary Practice

Prior revision October 2008

Approved Sept 2012 by the Executive Medical Board and the Governance Advisory Council.

This procedure is intended for use by UCSF Medical Center staff and personnel and no representations or warranties are made for outside use. Not for outside production or publication without permission. Direct inquiries to the Office of Origin or Medical Center Administration at (415) 353-2733.