PURPOSE:
To ensure the safe and appropriate use of anti-embolic stockings.

CONSIDERATIONS:
1. The use of elastic anti-embolism stockings helps to prevent Deep Vein Thrombosis (DVT) and pulmonary embolism by compressing the patient's superficial leg veins. This compression increases venous return by forcing blood into the deep venous system rather than allowing it to pool in the legs and form clots.
2. Elastic anti-embolism stockings provide equal pressure over the patient's entire leg or a graded pressure that is greatest at the ankle and decreases over the length of the leg.
3. The order of a physician is required for the use of antiembolism stockings and frequent observation by the nurse is recommended.
4. Anti-embolism stockings are not used with:
   a. The presence of any local leg condition such as dermatitis, recent vein ligation, skin graft or gangrene.
   b. Severe arteriosclerosis, other ischemic vascular disease or vascular grafts.
   c. Massive edema of legs or pulmonary edema from congestive heart failure.
   d. Extreme deformity of leg.
5. Appropriate anti-embolism stocking size is selected prior to discharge from hospital or physician office according to measurements of calf circumference and leg length from heel to back of knee.
6. Apply the stockings in the morning, if possible, before edema develops. If the patient has been ambulating, ask him to lie down and elevate his legs for 15 to 30 minutes before applying the stockings to facilitate venous return.
7. Stockings should be laundered every 3 days. Launder as per manufacturer's instructions. Patient should have alternate pair to wear while other is being laundered.
8. Use scale to evaluate edema. (See Circulatory - Measuring Peripheral Edema.)
9. Replace stockings when they lose elasticity.
10. Use alternative pressure device for patients with vascular disease.

EQUIPMENT:
Anti-embolism stocking

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain procedure to patient.
3. Powders and lotions are not recommended by some manufacturers (check the package for manufacturer specifications).
4. Put one hand and arm inside and use your other hand to invert the upper part of stocking back over its lower part. Loosely gather the doubled stocking in your hand and position stocking over foot and heel. Center patient's heel in heel pocket.
5. Pull stockings up, fitting around ankle and calf, and working up. Top of stocking should be 1 inch below bottom of knee. Some physicians order mid-thigh anti-embolism stockings. DO NOT turn down top of stocking. Be certain that all wrinkles have been removed. Stockings should not be bunched at top.
6. Place skid-resistant socks or slippers on before patient attempts to ambulate.

AFTER CARE:
1. Instruct patient/caregiver:
   a. Remove the stockings at least once daily to bathe the skin and observe for irritation and breakdown.
   b. Observe skin for color, temperature, sensation, swelling and ability to move.
   c. If redness is present, instruct patient to leave stockings off for 1 to 2 hours until redness disappears.
   d. Cleansing feet and legs and applying lotion is important to prevent skin breakdown.
   e. Rubbing and massaging of legs should be avoided.
2. Document in patient's record:
   a. Condition of skin.
   b. Compliance of use of stockings.
   c. Comfort of stockings.

COMPLICATIONS:
1. Arterial blood flow obstruction (characterized by cold and bluish toes, dusky toenail beds, decreased or absent pedal pulses and leg pain or cramps).
2. Allergic reaction and skin irritation.
3. Rolled stocking edges can cause excessive pressure and interfere with circulation.

REFERENCES: