Name of Policy: Fire Safety During Laser Surgery (Control of Flammability Hazards)

Policy Number: 3364-124-57

Department: Nursing Service

Approving Officer: Associate Vice President/Associate Executive Director

Responsible Agent: Administrator, Surgical Services

Scope: Operating Room/Perioperative Services

Effective Date: July 30, 2008
Initial Effective Date: March 1993

(A) Policy Statement

By definition, Class IV Lasers present a fire hazard either from the direct beam or from its reflection. Appropriate safety measures will be followed.

(B) Purpose of Policy

To provide guidelines that will reduce the hazard of a laser induced fire.

(C) Procedure

1. Wet draping materials will be used around areas that are close to the intended laser site to decrease possible ignition by a direct or indirect laser beam. These materials should be remoistened periodically to ensure proper protection.

2. A basin with 1000ml of saline or water must be readily available in case of fire.

3. During laser procedures on the lower bowel, the rectum may be packed with a wet radiopaque sponge to reduce the risk of methane gas explosion or fire.

4. During laser procedures on the trachea, special fire prevention precautions must be followed in collaboration with anesthesia personnel to decrease the chance of an endotracheal (ET) tube fire.
   a. Special ET tubes, designed for use during Laser procedures, shall be used. Prior to intubation, lubricate cuffs completely with a water soluble lubricant following intubation, fill the cuff with sterile saline.
   b. Nonexplosive anesthetic gases must be used during laser procedures. Nitrous Oxide should be avoided and every attempt should be made to deliver the lowest FIO2 while still maintaining adequate oxygen saturation of the patient.

5. Non-reflective instruments should be used whenever possible.

6. Flammable prep solutions should not be used during laser procedures, this includes all prep solutions containing alcohol.

7. A fire extinguisher should be readily available in case of fire.

8. In the event of a fire, the circulating nurse will press the red emergency button in the operating room and initiate Code Red procedure.
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Review/Revision Completed By:  
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Next Review Date: 7/1/2011

Policies Superseded by This Policy: 4-57

It is the responsibility of the reader to verify with the responsible agent that this is the most current version of the policy.