

Section 2

Narrative

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GENERAL CONSIDERATIONS

Current Direction

With the recent change in direction of the VA from an inpatient oriented service to a primarily outpatient service many new and innovative approaches to service have been inaugurated.

One approach is Short Stay Surgery. The procedures units are a one-day surgical and procedures of Ambulatory Care. In these special units patients have surgical procedures or diagnostic testing and return home - all in the same day. One result is reduced cost of hospitalization. A highly trained professional staff of doctors and nurses and efficient use of materials also help to reduce costs.

Sizes of Surgical and Procedures Suites are determined by VA planning models and approved by authorized planning officials. Much of the current and future work in planning and under construction will be in clinics, because of the costs involved the trend is away from huge urban medical centers and more toward smaller suburban clinics with the majority of patients being ambulatory (short term surgery and diagnostic testing). These clinics will do General and Topical Surgery and other Invasive Procedures work while Vascular and Cardiac work will continue to be done in the larger medical centers.

The Invasive Procedures Suites

The Invasive Procedures Suites, are a group of rooms consisting of the individual rooms in which surgery and various procedures are performed, plus all the required support rooms. Surgical Operating Rooms are both General / Topical Anesthesia Rooms and Topical Anesthesia Rooms -the latter commonly referred to as "lumps and Bumps" surgery.

Surgical and Procedures rooms are sometimes downsized from hospital based areas and geared to ambulatory procedures as practiced at a clinic level.

Various support areas are required. These include staff lockers and lounge areas; anesthesia workroom; scrub areas for the staff; storage space; connection to the Supply Processing and Distribution (SPD); housekeeping closets; gas storage area; appropriate staff offices; control and communication areas; patient holding areas; and other support rooms or areas as is deemed appropriate.

Ambulatory Surgery & Procedures Rooms"

For Ambulatory Surgery, the term "sterile" indicates that no micro-organisms are present, as determined by known microbiologic techniques. We use the term, "sterile field" to describe the sterile zone in operating rooms and includes the space immediately surrounding the patient's incision. Everything that enters this field must be sterile or as free of micro-organisms as is possible.

The air supply system must be designed to minimize airborne bacteria from entering the sterile field. This helps to minimize the number of micro-organisms in those areas which could contaminate the sterile field.

Other Procedures Rooms must have the mechanical air distribution designed to minimize the numbers of organisms present. Support areas such as the storage areas for sterile supplies and instruments and semi-restricted areas to include spaces such as the instrument work room, non-sterile supply storage, personnel lounges and lockers, offices, and control desk may also require adequate ventilation to minimize contamination.

Ceiling Heights

For surgical rooms 2890 mm (9'-6") is a minimum height and if possible should be higher. Other invasive procedure rooms can be lower because supplemental lighting is not required and if necessary can be mobile lights. When overhead x-ray equipment is required higher ceilings will also be required. In General Surgery operating rooms proper air handling is essential. About 1/3 of the air is supplied over the OR table and 2/3 is supplied around the OR table. In order to achieve desirable air circulation free from drafts a higher ceiling height may be necessary.

Storage and Case Carts

As a supplement to built-in storage of sterilized items including instruments within the procedures rooms which may become contaminated, a case cart system is used. This system contains most of the needed supplies required for specific cases, which include:

1. the instruments;
2. the sterile packs, which include the gowns, patients' drapes, back table covers, towels, etc.;
3. disposable supplies such as gloves, sponges, dressings, etc.;
4. sterile utensil items (in most cases a sterile wash basin containing sterilized water for the surgical team to remove the powder from the surgical gloves and supply wet sponges or laparotomy pads as required by the surgeon.

Sterilizer

A sterilizer for flash sterilization of instruments should be located as close as possible to operating and procedures rooms.

A sterilizer meets the following needs:

1. If an instrument is dropped or if a non-sterile instrument is needed, it can be flash sterilized and put into use in approximately three minutes.
2. Some clinics do not wrap their tray of instruments. The instruments are placed in an open tray, flash sterilized and carried directly to surgical instrument tables.

Ambulatory Care Invasive Procedures Surgery encompasses invasive ambulatory procedures but without hospitalization. This sometimes works hardship on patients many of whom are elderly and may have come a long distance for surgery or other procedures.

If more recovery time is needed than can be provided in an eight hour day, overnight rest may be needed. Some of the larger clinics can be planned to accommodate a few patients with on-site beds, but smaller facilities may require using temporary facilities for overnight stays. This is also a problem in clinics in remote areas and should be considered from the onset of the project.

Special HVAC Requirements

For larger clinics and those containing general anesthesia operating rooms a dedicated air-cooled chilled water system with backup from a main chilled water system is required.

Emergency power for the air-cooled chilled water system, air handling units, exhaust fans, pumps and controls is required.

See HVAC Design Manual for Hospital Projects for type of system, filtration and ductwork requirements.