

1.4EQUIPMENT PLANNING

Hospital planning is not complete if careful attention is not given to the fixed and movable equipment needed for the hospital. With the exception of items of current operating expense such as food, fuel, drugs, dressings, paper, printed forms, soap, etc.,

The term “equipment” means all items necessary for the functioning of all services of the hospital including accounting and records, maintenance of buildings and grounds, laundry, public waiting rooms, public health and related services.

Medical equipment is a vital component in healthcare delivery. Equipping health facilities need detail planning and coordination, clinical needs and the equipment requirements are met with the design and function.

The ultimate objective is to ensure all products selected are fit for purpose, within budget and, procured, delivered and commissioned in accordance with projects build programme.

Healthcare Equipment Planning is a specialised process and requires not only a clear understanding of the clinical need but also a knowledge of budgeting, architectural design and building process.

Effective project planning can only be achieved by a successful team process. This cohesive team generally consists of user groups, project managers, architects and other associated healthcare planners such as equipment planners, whose responsibility is to balance the requirements of the clinical users and the clients against available healthcare technology, budgetary targets and the realities of the design and construction process.

A series of meetings are arranged with the medical staff and other personnel to discuss the equipment needed. A room by room equipment list is then compiled and reviewed by the administrative, medical and departmental staff.

In an existing hospital, purchasing new equipment presents no particular problem except perhaps securing finances. Besides a purchasing department, there is usually a well-established procedure and mechanism to authenticate the need for new equipment or to replace an old one. There are trained people who can write specifications. The hospital administrator, generally an experienced man, and his purchasing officer will easily accomplish these tasks.

It is not so in a new hospital.

The timing of delivery, warehousing, unpacking, assembling and installing of equipment compound the problem. These are as important as selection and purchase.

If the equipment is to be imported, the procedure will be even more complex. There are approvals and licences to be obtained and economical hurdles to be crossed. The lead time will be longer. Lakhs of lakhs of rupees may be wasted, operating efficiency impaired and standards of patient care severely affected by not planning and executing any one of these tasks properly.

It devolves on the hospital consultant or the hospital administrator who will have been engaged early in the planning stage to determine all the items of equipment necessary for the hospital, to write or secure specifications, to call for and receive amounts and to purchase or recommend purchase with regard to depreciation.

Equipment for a new hospital may be classified into the following three groups based on the usual methods of acquisition and on suggested accounting practices with regard to depreciation.

1. Built-in Equipment:

- This is usually included in the construction contracts.
- Examples are cabinets and counters in the pharmacy, laboratory and other parts of the hospital, fixed kitchen equipment, laundry chutes, elevators, dumb waiters, boilers, cold rooms/walk-in coolers, deep freezers, fixed sterilizing equipment and surgical lighting.
- The planning and design of fixed equipment built into the hospital facility is the architect's responsibility.

2. Depreciable Equipment:

- Equipment that has a life of five years or more is not normally purchased through construction contracts.
- These large items of furniture and equipment have reasonable fixed location in the hospital building but are capable of being moved.
- Examples are surgical apparatus, diagnostic and therapeutic equipment, laboratory and pharmacy equipment, office equipment, etc.
- Equipment that is not included in the construction contract but which require mechanical or electrical service connections or construction modifications shall, as

far as is practical, be identified on the design development drawings to ensure its coordination with the architectural, mechanical and electrical phases of construction.

3. Non- depreciable Equipment:

- Equipment having less than five years' life span is purchased through ways other than construction contracts.
- These are generally small items of low unit cost under the control of the storeroom.
- Examples are kitchen utensils, chinaware, tableware, surgical instruments, catheters, linen, sheets, blankets, lamps, wastebaskets, etc.

The consultant must prepare a list of all the items under groups 2 and 3 given above.

The first step in preparing this list is to consider each room as a separate entity and prepare a comprehensive room-by-room equipment list, which should include additional items that may be required for the hospital. Detailed specifications must be given.

This task must be undertaken at the stage of design development itself. Working closely with the architect, the consultant should test the space needed for each item of equipment on the list.

The selection of technical, scientific and medical equipment requires careful analysis of each department's needs and conscientious study that will result in selecting equipment that will best meet the needs.

Department heads and staff members should be fully satisfied with the type and quality of the equipment. They should therefore be consulted before purchase.

It is necessary to consult with the architect designing the building early so that the facilities planned will be of sufficient size to accommodate the equipment and render the necessary service.