

UNIT – II MEDICAL TECHNOLOGY MANAGEMENT PRACTICES 9

Strategic Medical Technology Planning, Scope , Clinical necessity operational support, strategic planning process - Technology assessment: Technology audit, Budget strategies, Pre requisite for medical technology assessment - Management Practice for Medical Equipment - Device evaluation, Risk reduction, Asset management, ESHTA

1. Strategic Medical Technology Planning:

The aim of every society is to continuously improve the

- Quality of its members' lives, through promotion of health, prevention of disease, and access to an efficient health care delivery system
- Many different methods and strategies are followed to achieve this.
- Health care ranges from the fight against diseases to the maintenance of physical and mental functioning
- It largely depends upon technology, especially medical technology.
- Therefore, medical technology management is one of the most important segments of the health care system,

Strategic medical technology planning involves creating a roadmap for acquiring, implementing, and managing medical technologies to support an organization's long-term goals.

The health care delivery system is driven by four major forces:

- Budget,
- structure,
- technology, and
- social expectations.

In Health care It is important to

- (1) identify its goals;
- (2) select and define priorities;
- (3) allocate resources more effectively; and
- (4) achieve system-wide integration.

The Key Components of Strategic Medical Technology Planning are

- **Needs Assessment:**

Identifying current and future technology requirements based on clinical service needed, patient information, This could be collected from the doctors.

- **Technology Assessment:**

Evaluating available technologies, considering factors like functionality, cost, integration capabilities, and impact on patient outcomes.

- **Financial Planning:**

Developing a budget for new technology, implementation, maintenance, and training, ensuring alignment with available resources.

- **Implementation Strategy:**

Establishing a clear plan for integrating new technologies into existing workflows, including user training and system upgrades.

- **Performance Monitoring:**

Tracking key performance indicators (KPIs) to assess the effectiveness of technology investments and identify areas for improvement.

- **Improved Patient Outcomes:**

Strategic technology planning can lead to better diagnosis, treatment, and management of diseases, resulting in improved patient outcomes.

- **Increased Efficiency:**

The operational efficiency can be increased by providing quality and safety at reduced costs.

- **Competitive Advantage:**

Effective technology planning can help organizations differentiate themselves in the market, attract patients, and improve their reputation.

- **Cost Optimization:**

Strategic planning helps avoid costly mistakes, such as purchasing incompatible equipment or investing in technologies that don't meet the organization's needs.

The professionals mainly involved in this planning are

- **IT Professionals:** Manage the technical aspects of technology integration and support.
- **Clinical Engineers:** Provide expertise on medical equipment, its performance, and its integration with clinical workflows.

- **Finance Professionals:** Manage the budget and financial aspects of technology investments.

Planning mainly insist hospitals to effectively manage their available technology resources and to do more with less available money by selecting “appropriate” technologies that have longer life cycles.