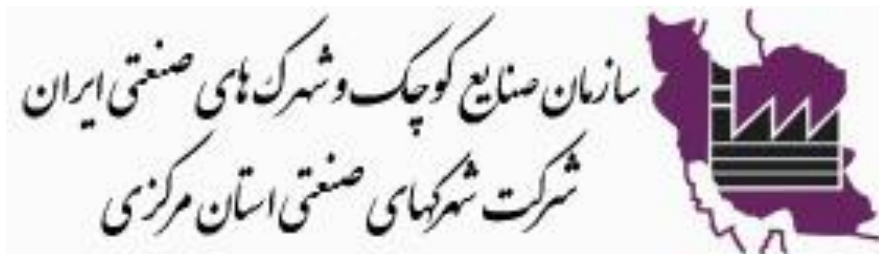


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



عنوان : آشنایی با انواع پسماندها و مدیریت آنها

دکتر رامین زارع
هیات علمی دانشگاه آزاد اسلامی اراک

۷ شهریور ۱۴۰۲

Waste Minimization

Steps in Waste Management

- Waste classification
- Waste segregation
- **Waste minimization**
- Handling and collection
- On-site transport and storage
- Treatment and disposal

مراحل مدیریت پسماند صنعتی:

- ▶ طبقه بندی پسماند صنعتی
- ▶ تفکیک پسماند صنعتی
- ▶ به حداقل رساندن پسماند صنعتی
- ▶ جابجایی و جمع آوری
- ▶ حمل و نقل و ذخیره سازی در محل
- ▶ پالایش و دفع

The Waste Management Hierarchy



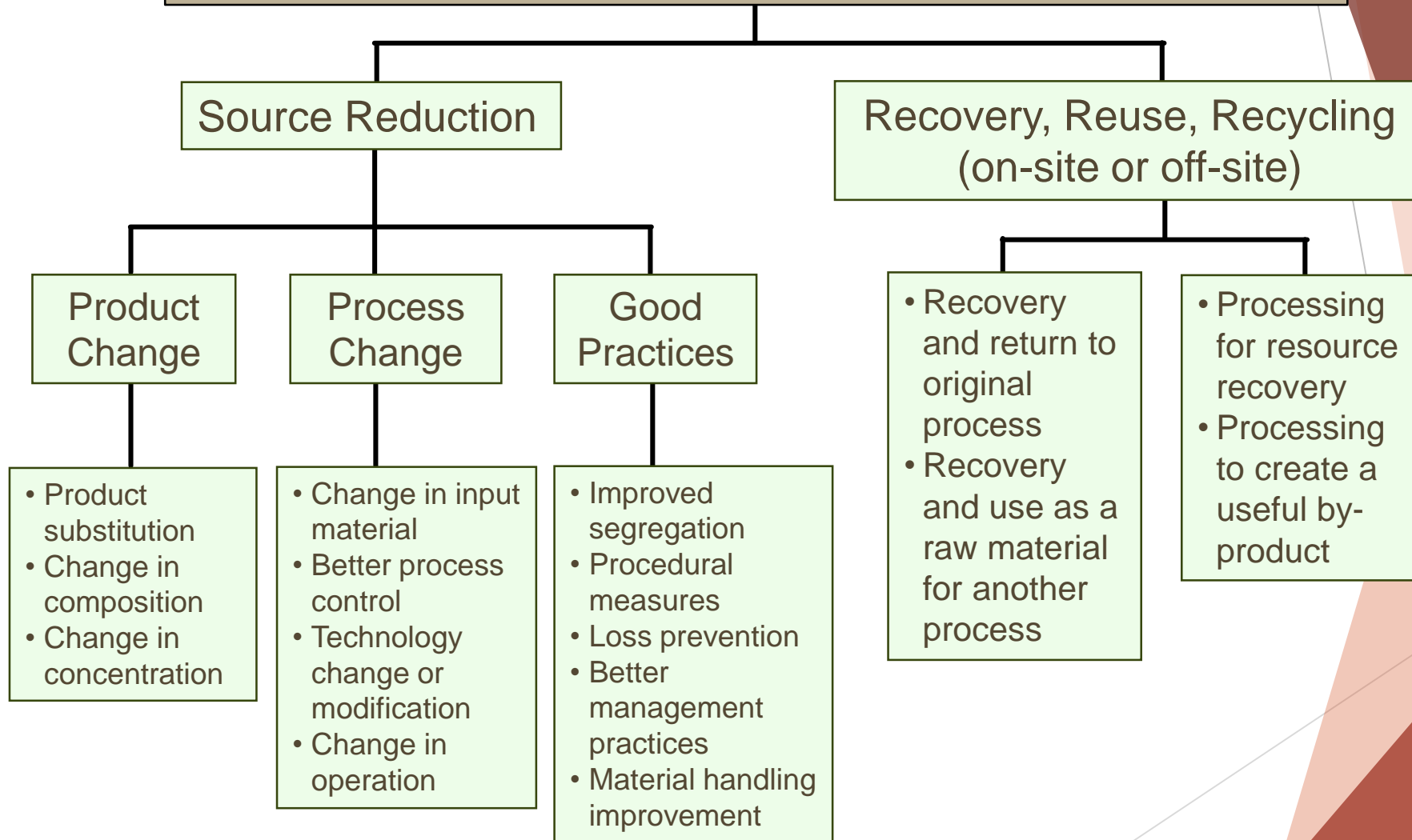
Benefits of Waste Minimization

- Reduces cost of waste disposal
- Reduces environmental impact
- Enhances public health
- Enhances worker safety
- Improves public image

Waste Minimization Opportunity Assessment

- Systematic procedure for identifying ways to reduce or eliminate waste
- Four phases:
 - Planning and organization
 - Assessment phase
 - Feasibility analysis phase
 - Implementation

Waste Minimization Techniques



Inventory Control

- The management of supply, storage and distribution of items to maintain a balance between adequate supply and oversupply
- Goal: to minimize the total cost of inventory
- Good inventory control is an effective tool for minimizing waste.

Basic Inventory Control Concepts

- ABC Classification System
 - Items are grouped into three classifications based on the number of items and their costs
 - Typical example of the results of an ABC analysis:
 - 10% of items account for 70 % of budget (Group A)
 - 20% account for 20 % of budget (Group B)
 - 70 % account for 10% of budget (Group C)
 - Effective inventory control requires paying special attention to Group A

Basic Inventory Control Concepts

- VED analysis
 - Items are classified according to criticality.
 - “V” is for **vital** items without which a industry cannot function,
 - “E” for **essential** items without which an institution can function but may affect the quality of the services
 - “D” stands for **desirable** items, unavailability of which will not interfere with functioning.

Basic Inventory Control Concepts

- ABC-VED Matrix
 - Items with an “A” and “V” (AV) classification require stocking of a reasonable quantity and close management
 - Items can be classified by combining ABC and VED. Different inventory management approaches can be assigned to the combined classification.
 - Example of combined classification:
 - Category I items (AV, AE, AD, BV and CV)
 - Category II items (BE, CE, BD)
 - Category III items (CD)

Some Approaches to Inventory Control

- Monitor and record the movement of goods in and out of the storage area to establish purchasing cycles and to control inventory
- Increase inventory turnover without sacrificing service level
- Use **FIFO** (First in, first out) to minimize expired medicines and chemicals with expiry dates
- Consider “**Just-in-Time**” (JIT) inventory approach: arrange for vendors to make frequent bulk deliveries to support the hospital's supply needs and reduce industry storeroom stocks