

SNS COLLEGE OF ALLIED HEALTH SCIENCE
Affiliated to The Tamil Nadu Dr MGR Medical University, Chennai

DEPARTMENT OF CARDIOPULMONARY PERFUSION CARE
TECHNOLOGY

COURSE NAME: CSSD

UNIT I : CSSD Work Practice, Return Of Equipment And Initial
Processing

TOPIC : CSSD Work Flow Practice

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What is CSSD?

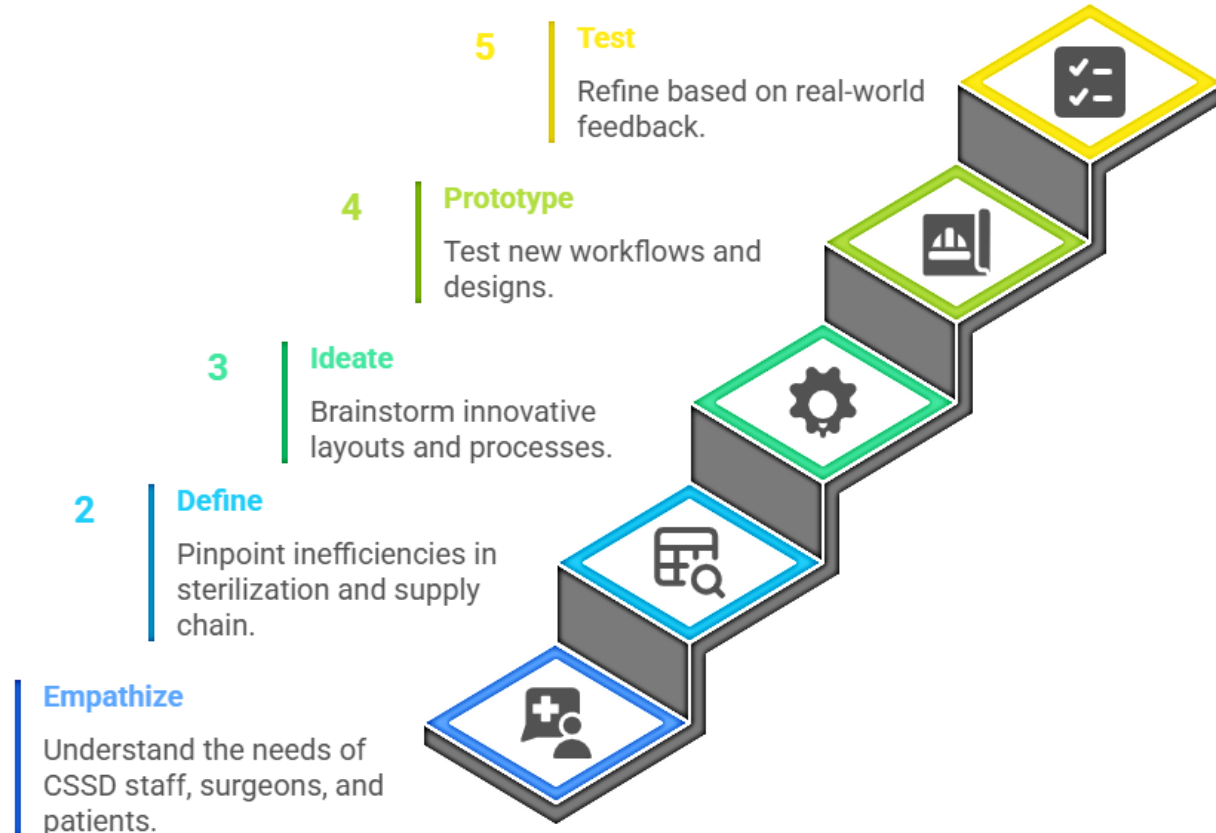
Core Purpose of CSSD

- Central hub for cleaning, sterilizing, and distributing medical equipment.
- Ensures infection-free instruments for patient safety.
- Supports surgical and clinical operations seamlessly.



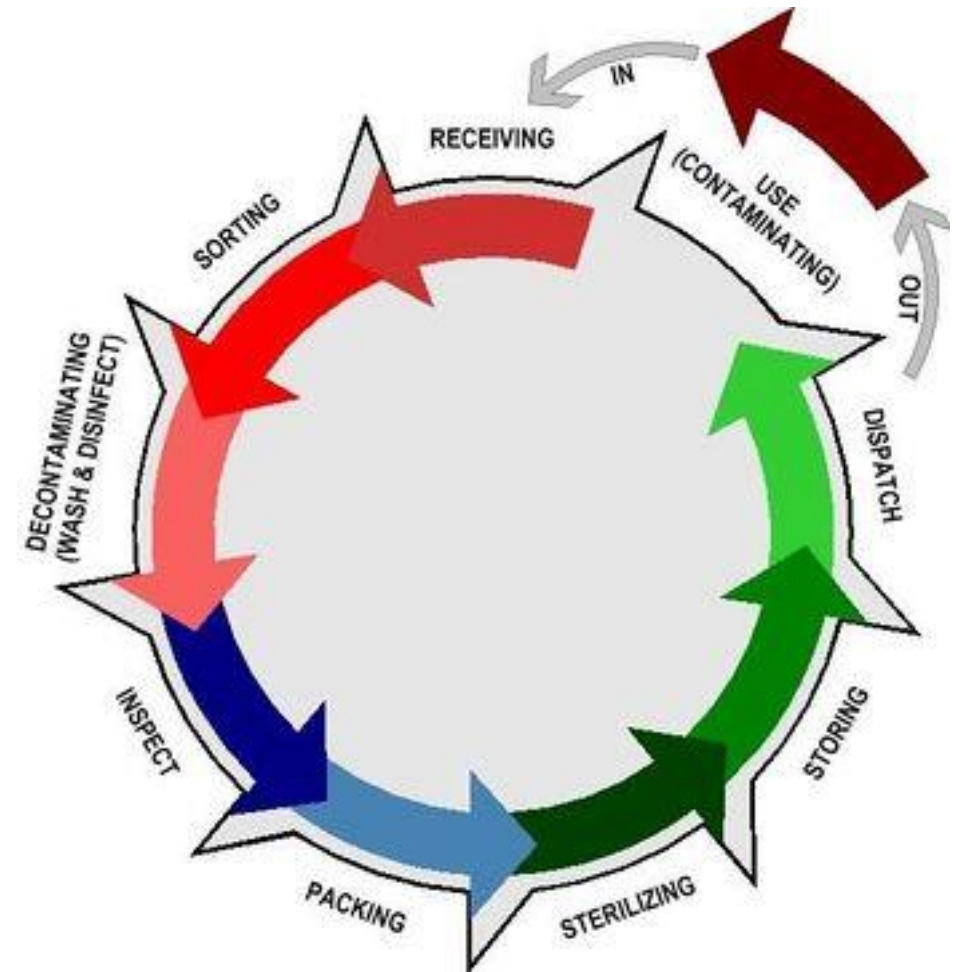
Design Thinking for CSSD

- **Empathize:** Understand needs of CSSD staff, surgeons, patients.
- **Define:** Pinpoint inefficiencies in sterilization and supply chain.
- **Ideate:** Brainstorm innovative layouts and processes.
- **Prototype:** Test new workflows and designs.
- **Test:** Refine based on real-world feedback.



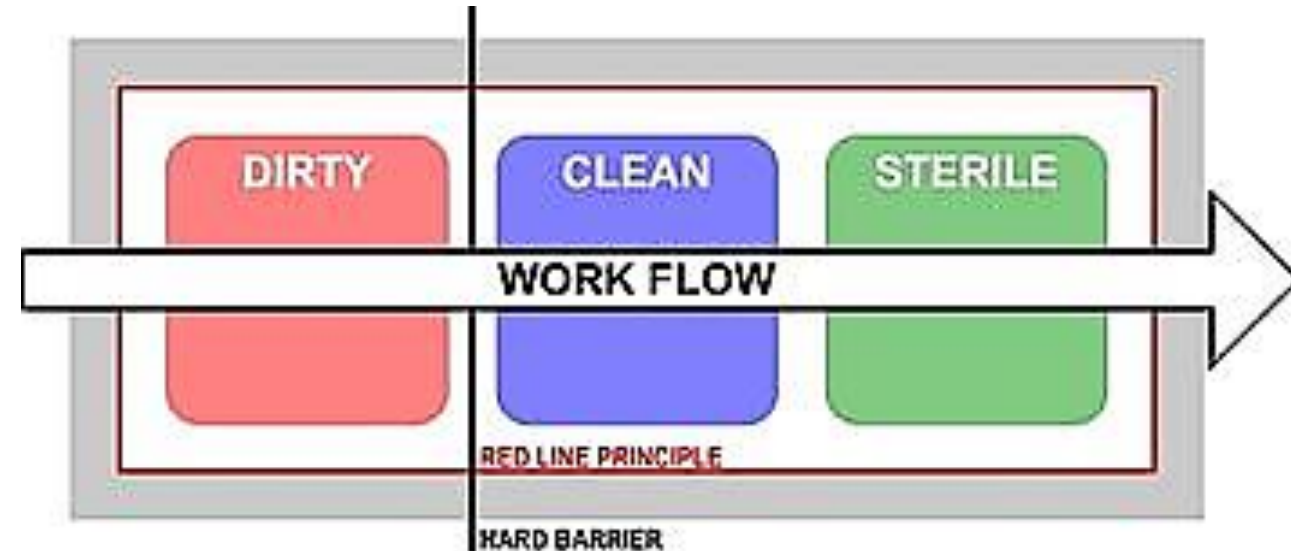
CSSD Functional Areas

- **Decontamination:** Cleaning soiled instruments.
- **Assembly & Packaging:** Preparing instruments for sterilization.
- **Sterilization:** Using autoclaves (steam, ETO).
- **Storage:** Managing sterile inventory.
- **Distribution:** Delivering to hospital departments.



Standard Workflow Steps

- Collect used instruments from clinical areas.
- Decontaminate (manual or automated cleaning).
- Inspect and assemble instrument sets.
- Sterilize using appropriate methods.
- Store and distribute sterile supplies.



Empathize - Stakeholder Insights

Staff: Need safe, efficient workspaces and clear protocols.

Surgeons: Require timely, sterile instruments.

Patients: Expect infection-free care.

Pain Points: Delays, contamination risks, staff workload.

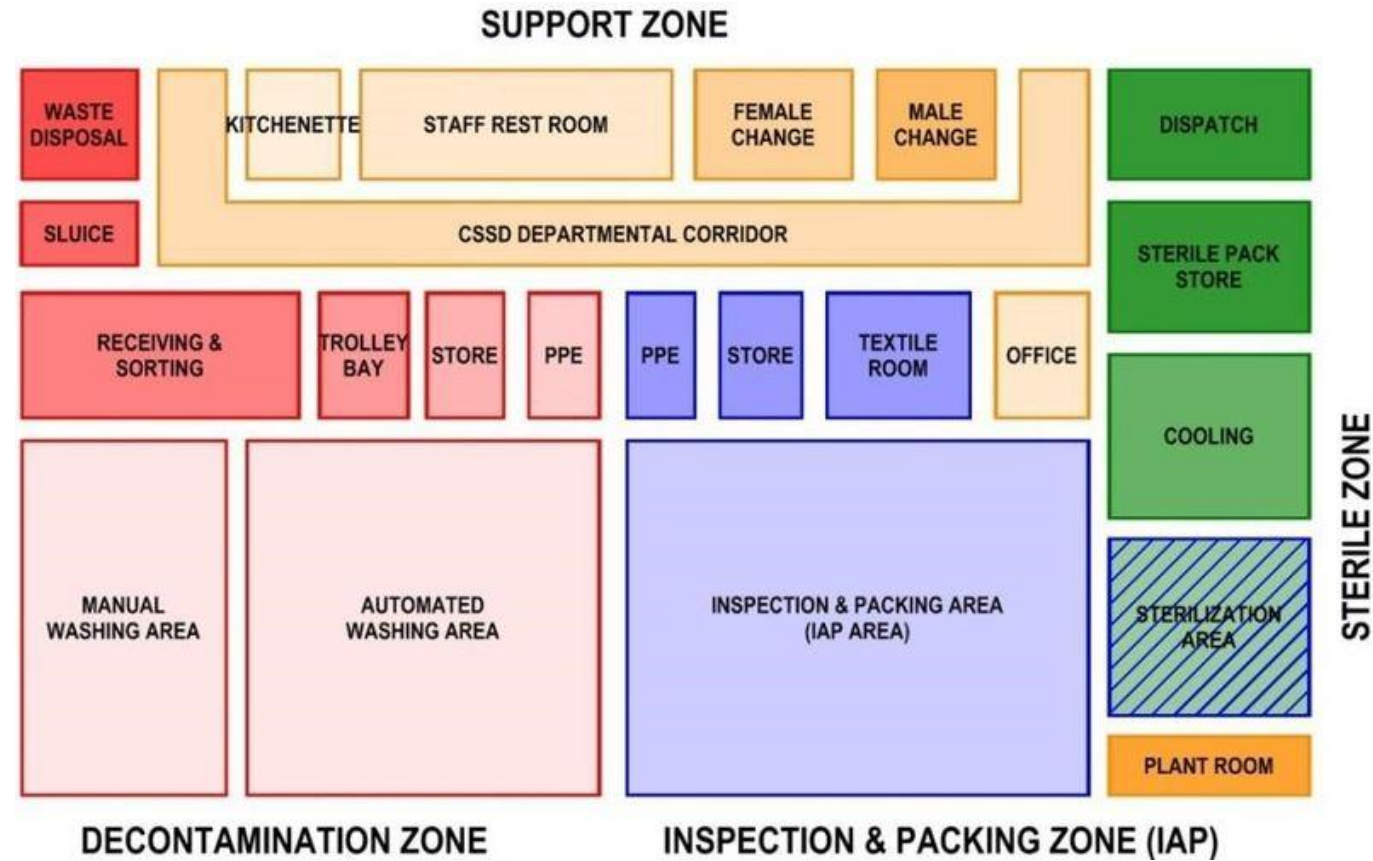
Define & Ideate - Solving Challenges

Key Issues

- Cross-contamination due to poor zoning.
- Delays in instrument turnaround.
- Limited automation and training.

Solutions

- Unidirectional layout to separate soiled and clean zones.
- Automated tracking for inventory management.
- Enhanced staff training programs.



Prototype & Test - Workflow Improvements



Measure Metrics

Assess turnaround times and compliance



Train Staff

Educate staff on new protocols



Test Layouts

Evaluate unidirectional flow layouts



Pilot Systems

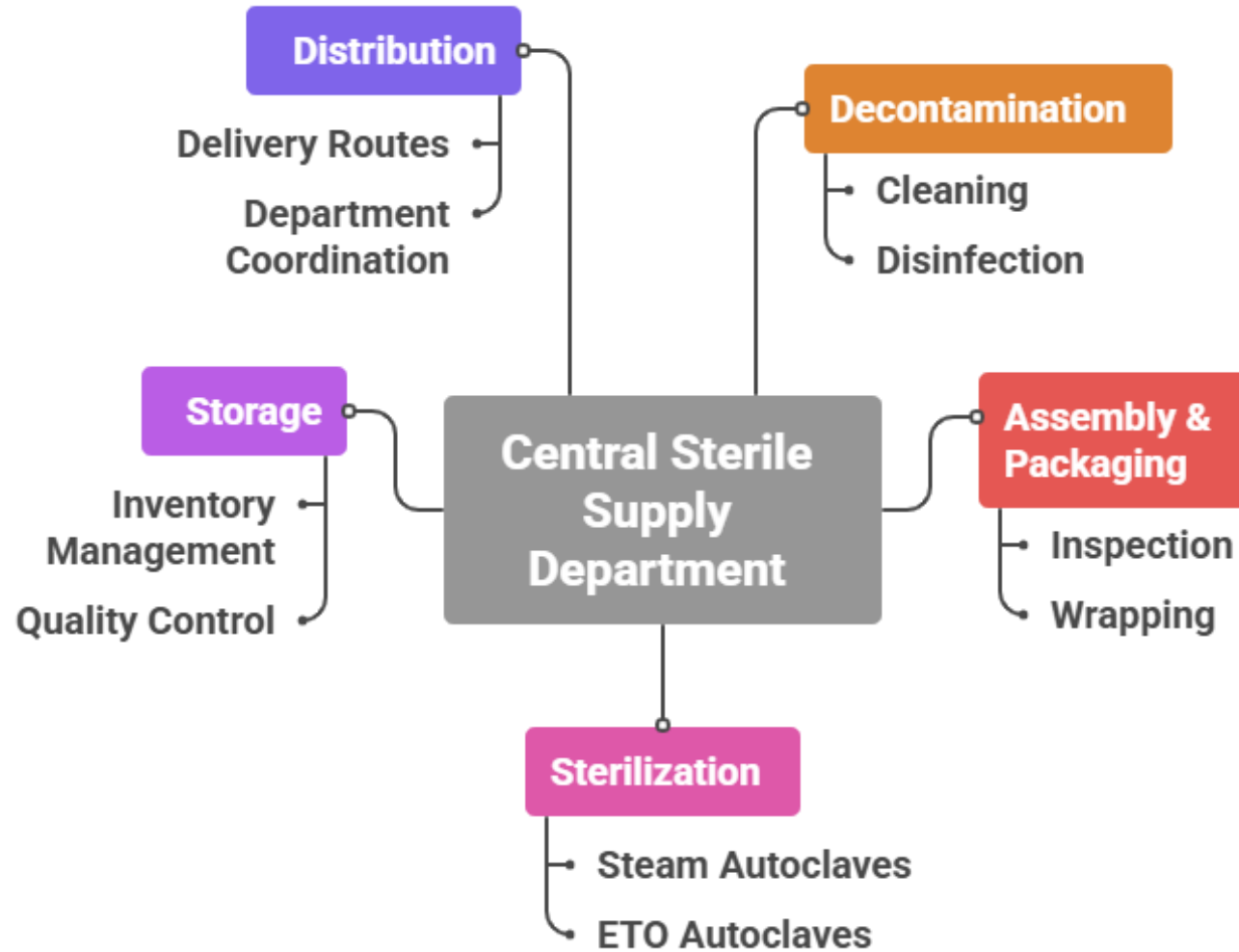
Implement automated washers and tracking

Implementation & Best Practices

- Maintain unidirectional workflow to prevent contamination.
- Regularly service sterilization equipment.
- Follow HSPA and ISO 17665 standards.
- Use RFID for inventory tracking.
- Conduct regular staff training and audits.



Summary



References

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- National Health Systems Resource Centre (NHSRC), India. (2020). *Guidelines for Central Sterile Supply Department*.
- Bhatia, D., et al. (2023). *A Guide to Hospital Administration and Planning*. Springer.
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THANK YOU