Recommendations by the Quality Task Group (52): Requirements for Construction or Conversion of a Hospital Central Sterile Supply Department Part 2 – Staff and Material Routes

In this recommendation on the topic of “Requirements for Construction or Conversion of a Hospital Central Sterile Supply Department” we will discuss routes within the CSSD, while addressing also the various points of intersection.

The aim here is to safeguard the activities unfolding in the clean area and prevent contamination (microbial transmission, etc.) from the unclean area into other areas. In particular, ➜ SPATIAL SEPARATION of the various areas can assure separation of contaminated, decontaminated and sterilised materials.

It is presupposed that there is a changing room situated at a central or decentralised location, depending on the spatial or organisational circumstances of the respective establishment.

Staff routes
The unclean area must be spatially separated from the clean area/sterile supplies’ area. Ideally, there should be separate access facilities, including a changing room, as shown in the model staff and materials’ flow chart below.

Staff sluice
In line with the “Three-Route Sluice” principle, a distinction is made between the following:
– Outer staff sluice: Changing out of and into work or outdoor clothing
– Inner staff sluice: Changing into department clothing (clean/unclean), Changing out of clean-area department clothing
– Unclean staff sluice: changing out of unclean department clothing, access to outer staff sluice

If a staff sluice as specified above is not feasible for structural reasons, the following must be done:
– An “unclean changing room (gown sluice)” must be installed before the unclean area. “Unclean changing room (gown sluice)” means: Donning or removing personal protective gear, including hand disinfection and changing, and as applicable changing of ➜ DEPARTMENT CLOTHING.
– A “clean changing room (gown sluice)” must be installed before the sterile supplies’ area. “Clean changing room (gown sluice)” means: At least hand disinfection, possibly compliance with the personal hygiene requirements of the operating theatre if there is direct access to the OR area

Toilets
– Access via staff sluice

Office
– Access from clean area
– Visitors’ access from outside, with barrier to inner zone

Recreation room
– Access from clean area

Material routes
The material routes are also depicted in the following model staff and materials’ flow chart.

Unclean incoming goods zone
– Delivery of supplies to be reprocessed
– Waste disposal to disposal room

SPATIAL SEPARATION prevents contamination.

DEPARTMENT CLOTHING is used only in a defined area.

Hygiene requirements must be observed while transporting materials too.
Unclean area
- Washer-disinfector loading zone: cleaning, disinfection and drying
- Manual workstation (pre-cleaning, etc.)
- Storage area (transport systems, etc.)
- Load-through WD and/or tunnel washers
- Manual handover (pass-through)
- Container/trolley washing facility

Clean area
- Removal of reprocessed supplies
- Release after decontamination and drying
- Distribution of decontaminated supplies for further processing
- Return loading trolleys to WD
- Return facility for supplies with residual soils from clean area to unclean area
- Packing station
- Return decontaminated materials to users
- Loading zone for steriliser Note: materials supplied from the outside only for sterilisation are delivered in the same way as consumables; if necessary they are packed, labelled and made ready for sterilisation to that effect.
- Load-through sterilisers

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Fig. 1: Staff and material routes flow chart of a Central Sterile Supply Department (CSSD)
Unloading and cool-down zone
- Unloading and cooling down of sterile supplies
- Release after sterilisation
- Return loading trolleys to steriliser
- Return and distribute sterile supplies
- Sterile supplies’ store/consignment store
  - Provision of reprocessed transport trolleys
  - Storage of sterile supplies
  - Consignment store
- Disposal
  - Waste collection
- Unclean cleaning materials’ room
  - Storage area for cleaning trolleys
  - Exhaust
- Central dosage
  - Storage area for WD chemicals and trolley/container washing facilities and dosage system
- Materials’ sluice
  - Incoming goods’ zone
  - Consumables’ store
- Clean cleaning materials’ room
  - Storage area for cleaning trolleys
  - Cleaning detergents’ store
  - Exhaust

The routes described above are illustrated in the following model staff and materials’ flow chart. Such an optimal room layout will not be possible in all cases when constructing or converting a CSSD. In such cases, alternative solutions must be found while paying attention to all specifications.

The forthcoming publication in this series will focus on the technical and functional aspects of workplace fittings.