Episode 13: What Can Go Wrong in Cleaning and Disinfection

To be discussed:

- Germs are Invisible
- Safety concerns affect proper use
- Harsh on surfaces and assets
- Disinfectant dry time
- Reusable cloths and cleaning issues
- Product compatibility with cleaning tools
- Who is using product and When?
- Inaccessible products
- Unpleasant products
- Incorrect dilution issues

Germs are invisible

- We don't know how many germs (microorganisms) might be on a surface
- We do not know if they are 'easy to kill' or 'hard to kill'
- We don't know if they are killed or removed
    - Need an effective process and product to help us achieve disinfection and a safe environment.
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Safety concerns affect proper use

- There are products in our world that affect the user with respiratory symptoms like watery eyes, nasal problems or asthma-like symptoms
- We need a balancing act for high efficiency and at the same time high safety.
    - We need a product that is as safe as possible, but kills the bugs we are concerned about.

Harsh on some surfaces

- There is not one product that can be used on every surface
- All of our settings have different composites that need to be cleaned.
- Some equipment, at 'end of life' may break down from a disinfectant that would not bother it when the equipment was new.

- You may need more than one cleaner/disinfectant, depending on your surfaces.

Disinfectant dried before pathogens die

- Every disinfectant will have a wet contact time listed in order to kill the bugs
  - If it says 10 minutes, you will have to re-apply the product to get a wet time of 10 minutes
- Longer contact time products may not be saving you money if you have to keep applying them!
  - Find the fastest contact time, for the bugs that are of concern to you.

Poorly laundered, reusable cloths may transmit pathogens

- A study showed that 94% of cloths had bacteria on them when returned from the laundry
- Microfiber can only be washed a set number of times (set by the manufacturer) before they are ineffective
- Microfiber also needs very specific washing steps, some can't have bleach, or high temperatures, each manufacturer will be different.
  - Make sure you cloths are being cleaned as per instructions at a reputable laundry.

Compatibility with cleaning tools

- Quaternary ammonium compounds (quats) can bind to cleaning cloths due to an electric charge issue (cloths are negative, quats are positive)
- The active chemistry may bind to the cloth and not get on the surface you are disinfecting
- Microfiber cloths will vary in their binding ability, cotton cloths will bind!
  - If using dilutable quats, check for quat binding using strips that will be available from your supplier

Who? What? When? How?

- Everyone must know what they are responsible for cleaning/disinfecting
- Everyone must know expectations for the frequency of cleaning/disinfecting (after each use, daily, weekly, etc.)
- Everyone must know the limitations of the method they use
  - Disposable pre-wetted wipes
  - Cloths
  - Diluted products
- Use a checklist of items to ensure each item has been addressed so that there are no 'orphan' items
- Use a validation system to check cleaning and disinfection
  - Having clear roles and responsibilities will ensure the safest environment for one and all.

Inaccessible means ineffective

- Having disinfectants attached to mobile equipment helps ensure the equipment is cleaned and disinfected
- Having a safe product means it can be kept at all points where it might be needed
  - Find the safest, most convenient product to enhance cleaning/disinfection

Unpleasant to use

- Products with strong odors might cause staff not to use it, or to not get it on surfaces near the patient
    - If staff like a product, they will use it as instructed

Incorrect disinfection dilution can be dangerous

- Dilution stations cannot be guaranteed to work each and every time
- Older systems have a tip that goes into the concentrate, this needs to be checked regularly that it is not blocked
- Even systems with a tip in each container of concentrate need to be checked when the bottle is changed to ensure that the bottle has been placed in the station properly
    - Each manufacturer will tell you how often to check the station (daily, each use, each change, monthly, etc.)
    - You, as a user, have to be comfortable with this time frame.