

Cleaning and disinfection program: A justified process

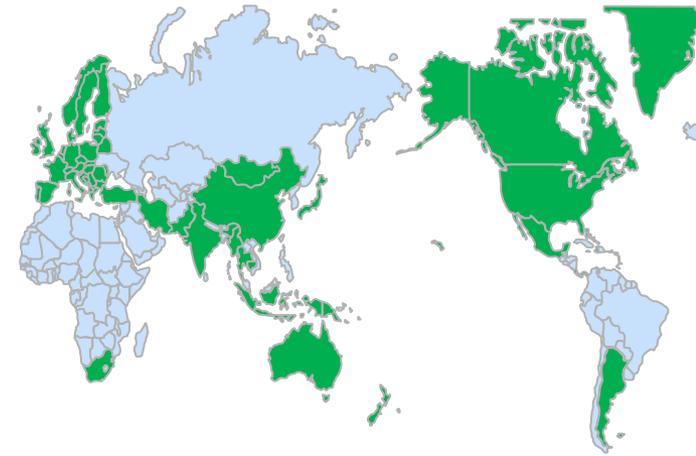


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518 Disinfection

519

520 4.36 The disinfection of cleanrooms is particularly important. They should be cleaned and disinfected
521 thoroughly in accordance with a written programme. For disinfection to be effective, prior cleaning to
522 remove surface contamination should be performed. More than one type of disinfecting agent should
523 be employed to ensure that where they have different modes of action and their combined usage is
524 effective against all bacteria and fungi. Disinfection should include the periodic use of a sporicidal
525 agent. Monitoring should be undertaken regularly in order to assess the effectiveness of the
526 disinfection program and to detect changes in types of microbial flora (e.g. organisms resistant to the
527 disinfection regime currently in use). Cleaning programs should effectively remove disinfectant
528 residues.

529

530 4.37 The disinfection process should be validated. Validation studies should demonstrate the
531 suitability and effectiveness of disinfectants in the specific manner in which they are used and should
532 support the in-use expiry periods of prepared solutions.

One or two step cleaning and
disinfection

What are the elements/parameters to analyze to determine if a cleaning prior to disinfection is required?



“ For disinfection to be effective, prior cleaning to remove *surface contamination* should be performed.”

What are the elements/parameters to analyze to determine if a cleaning prior to disinfection is required?

- 01 Amount of residue & potential interaction
- 02 Ability of disinfectant to clean and disinfect (EPA claims, EN soiled, etc.)
- 03 Application technique
- 04 Location

What are the elements/parameters to analyze to determine if a cleaning prior to disinfection is required?



People



Transport of Materials and Supplies



Treatments On Walls & Floors



Drug Components



Processing Equipment

What are the elements/parameters to analyze to determine if a cleaning prior to disinfection is required?



a. Residues & interactions



01

Contains a blend of effective surfactant

02

EPA registered as cleaner and disinfectant

What are the elements/parameters to analyze to determine if a cleaning prior to disinfection is required?



a. Residues & interactions



01 Contains a blend of surfactant

02 EPA registered as cleaner and disinfectant

b. Disinfectant composition



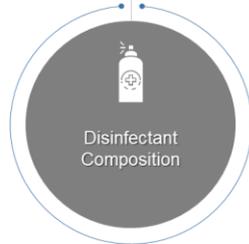
01 Spray, fumigation or vaporized

02 Mopping or wiping

What are the elements/parameters to analyze to determine if a cleaning prior to disinfection is required?



a. Residues & interactions



- 01 Contains a blend of surfactant
- 02 EPA registered as cleaner and disinfectant

b. Disinfectant composition



- 01 Spray, fumigation or vaporized
- 02 Mopping or wiping

c. Application Technique

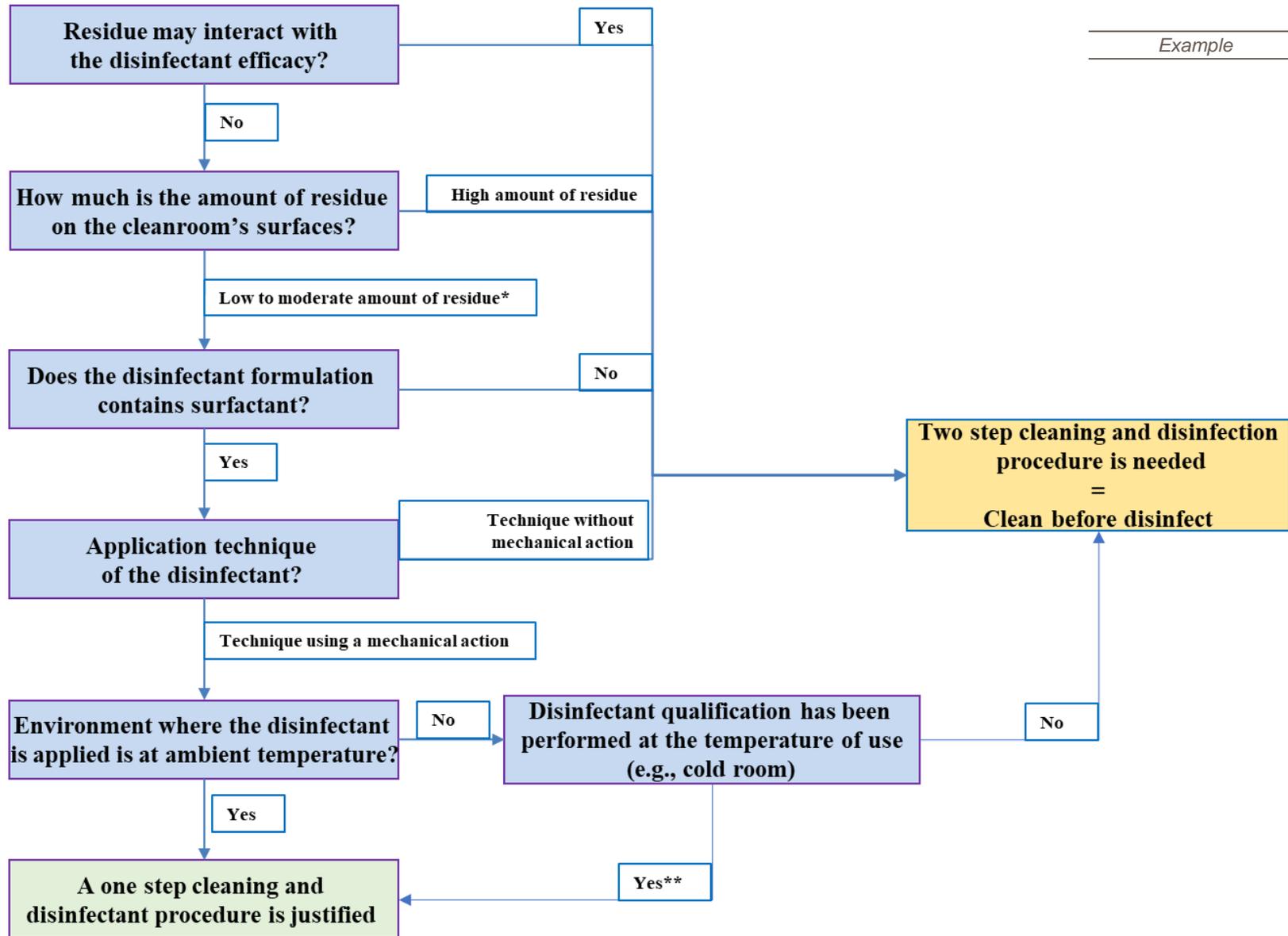


- 01 Cold room
- 02 Ambient temperature

d. Environment

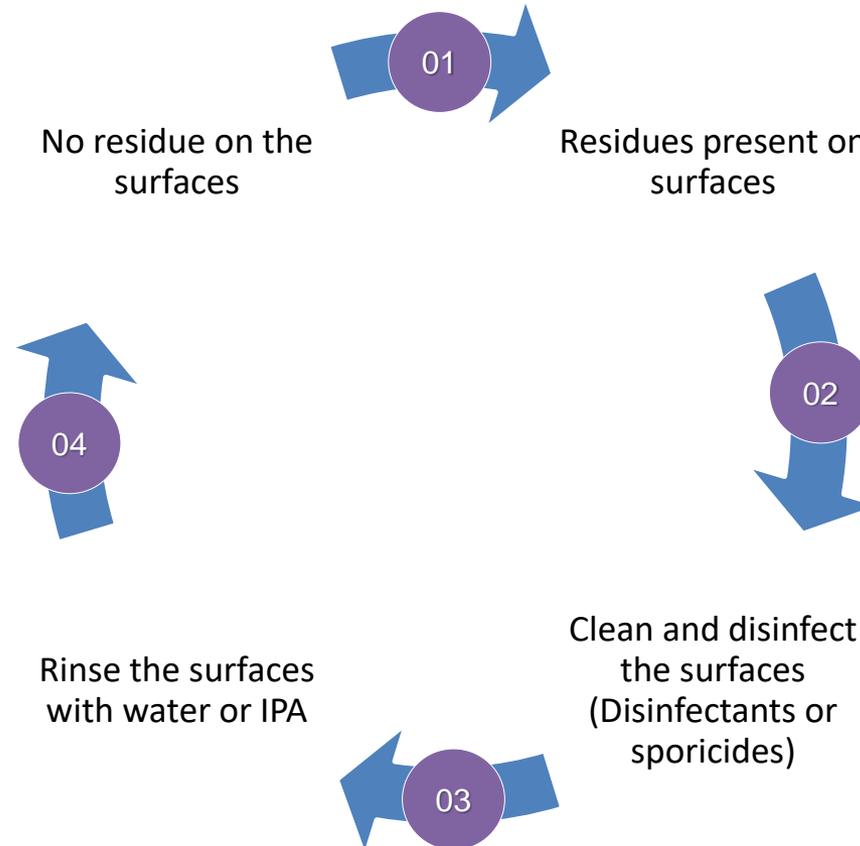
Cleaning and disinfection a one or a two-step?

Example



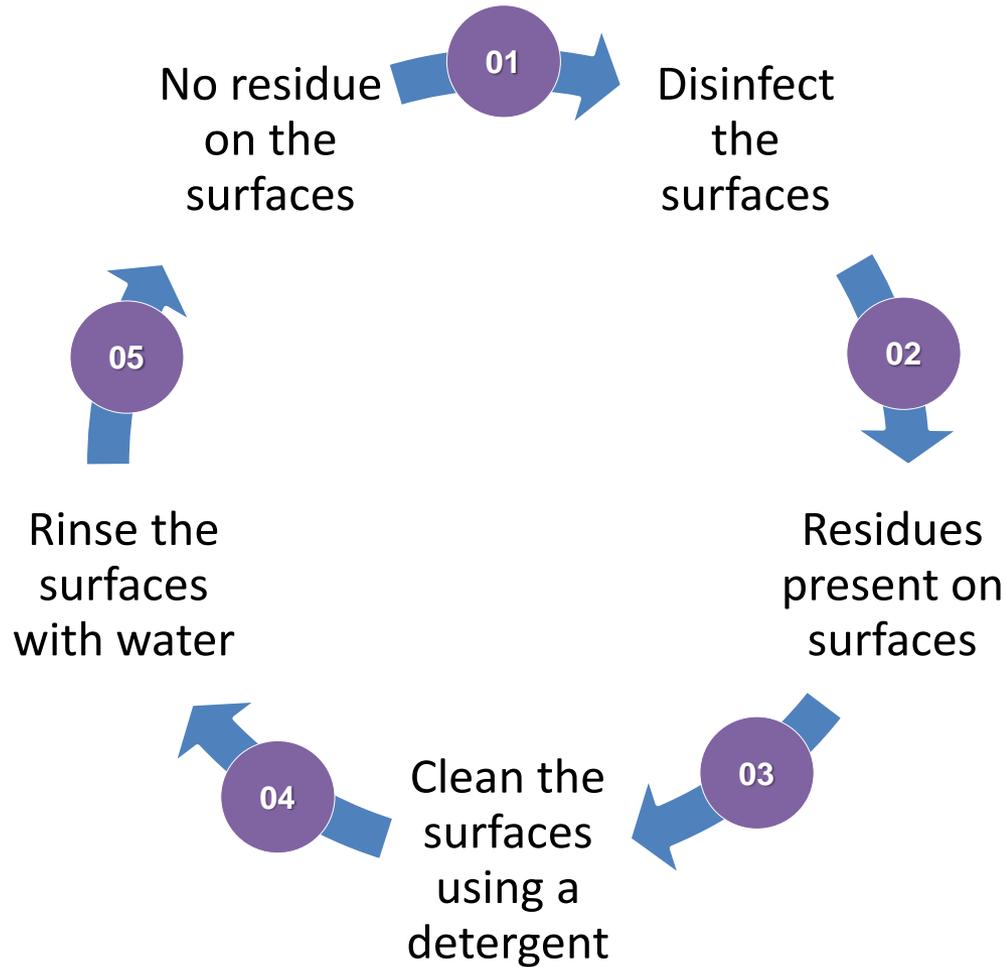
Possible options for cleaning and disinfection procedure

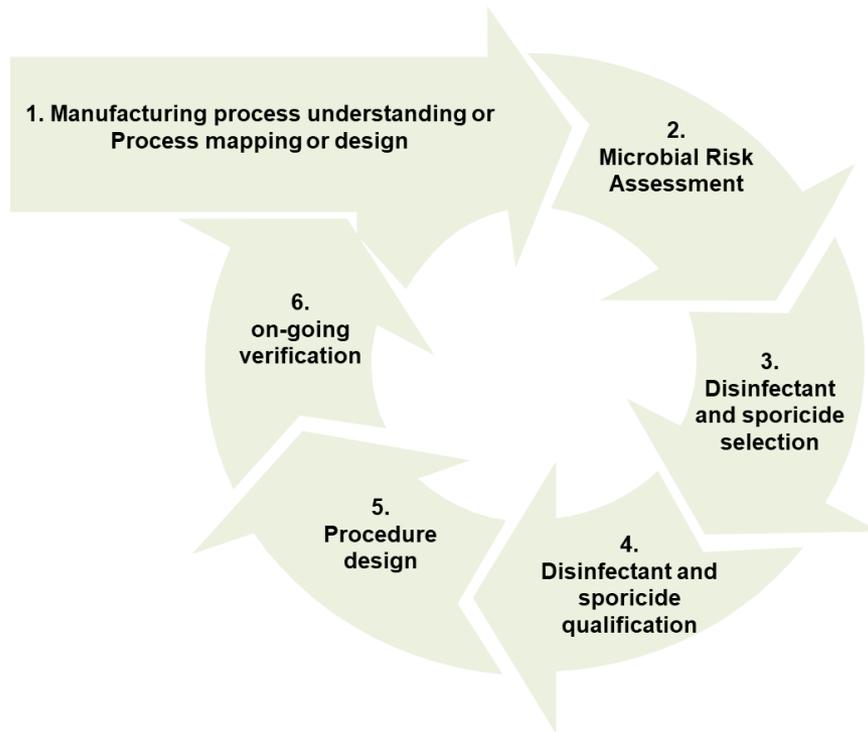
Option 1



Possible options for cleaning and disinfection procedure

Option 2





Keep it simple :

Understand your processes and sources of contamination and interaction to develop robust cleaning and disinfection procedures.



Thank You

For your listening

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- *PDA Technical Report Number 70: Fundamentals of Cleaning and Disinfection Programs for Aseptic Manufacturing Facilities (2015)*
 - *European Commission, Good Manufacturing Practice Medicinal Products for Human and Veterinary Use - Annex 1, Manufacture of Sterile Medicinal Products*
 - *United States Pharmacopeia 38 (USP) <1072> - Disinfectants and Antiseptics. The United States Pharmacopeia Convention/National Formulary, Rockville, MD.*
 - *Sartain K.E., Disinfectants rotation, access on Jul 1, 2017 at: <https://www.cemag.us/article/2005/03/disinfectant-rotation>*
 - *United States Department of Health and Human Services Food and Drug Administration, Guidance for Industry Sterile Drug Products Produced by Aseptic Processing – Current Good Manufacturing Practice, 2004.*
 - *Regulatory Science of Pharmaceuticals and Medical Devices from Ministry of Health, Labour and Welfare of Japan, Guidance on the Manufacture of Sterile Pharmaceutical Products by Aseptic Processing, 2006.*
 - *Rogers M. and Polarine J., Rinsing Strategy, access on August 25, 2017 at: <http://www.ivtnetwork.com/article/jim-polarine-and-marc-rogers-rinsing-strategy>*
 - *El Azab W., Residue removal in cleanrooms: A regulatory overview, Cleanroom Journal, edition Jan 2020*
 - *El Azab W., Cleaning and disinfection - a one or a two steps process or scientifically justified?, cleanroom technology, edition March 2019*
 - *El Azab W., Lifecycle Approach to Cleaning and Disinfection Rotation, Cleanroom Technology, edition March 2018*
- Note: This is not a complete listing, just a guidance to literature the speaker has found to be interesting/beneficial.**