# Intermediate disinfection

# Preparation Steps (mobile C-arm not in direct vicinity of patient)

Remove drapes from C-arm, patient table and control units

#### **General Instructions**

- While cleaning and disinfecting, wear gloves with chemical resistance.
- Always work from top to bottom (top down) and from clean to dirty areas.
- Always use a new wet wipe or mop after removing blood.
- Use mops and wipes only as long as they leave a closed liquid film on the
- Dispose of used mops and wipes according the instructions of your facility.
- This order only applies when using fastacting surface disinfectants. For longer exposure times, it may be useful to first disinfect the surfaces near the patient and then the distant ones.

# Terminal disinfection

#### **General Instructions**

The surfaces in the OR must be completely dry before entering.

#### Start of disinfection

Visual inspection of all surfaces on the C-arm, C-arm chassis as well as all surfaces of the monitor cart for visible contamination. Proceed with targeted wipe disinfection of soiled areas.

- a) Monitor cart: display, mouse and handles
- b) Mobile C-arm: handles
- c) Mobile C-arm: handswitch
- d) Mobile C-arm touch user interface/remote user interface
- e) Remote control dock
- f) Mobile C-arm: FD from top, front to bottom
- g) Mobile C-arm FD (front)
- h) Mobile C-arm FD (bottom)
- i) C-arm inner surface
- j) C-arm single tank from top to bottom
- k) If possible, lift C-arm vertically with motorisation
- l) Wireless footswitch

#### Continue disinfection

- m) Fins below the horizontal unit of the C-arm
- n) Lifting column of the C-arm
- o) Mobile C-arm: outer rail surfaces and cabling

Use pre-soaked mops for disinfect of the floor

End of disinfection

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Caution: Federal law restricts this device to sale by or on the order of a physician.

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### Clean Guide

# Comprehensive cleaning concept

Cios Spin, Cios Alpha & Cios Flow –
Because infection control matters
siemens-healthineers.com/cios





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# Clean Guide – Improve infection control

#### Purpose of this document

This CleanGuide is a non-binding recommendation developed jointly by Siemens Healthineers and ECOLAB on how to clean and disinfect the Cios mobile C-arm, and is intended both for intermediate and terminal cleaning. Adaptations due to application- or region-specific requirements need to be considered, as well. This document contains information specific to ECOLAB and Siemens Healthineers. Please also observe the individual product information in the operator manual.

#### Indications and caution

Antibiotic-resistant pathogens are not characterized by a higher resistance to disinfectants. A patient's infection status (e.g., "septic" patients with chronic viral disease like HIV and hepatitis or patients with multi-resistant pathogens like MRSA and MRGN) does not necessarily indicate:

- changes to the intermediate disinfection of the treatment rooms and ORs or
- an extension of the contact time: extra wetting of the surfaces is not necessary.

All surfaces in the treatment rooms and ORs must be completely dry before the rooms can be entered or used! In the case of acute infectious diseases with non-enveloped viruses or spores, the standard disinfection process must be adjusted (see recommended materials).

#### Caution:

- Do not let cleaning liquids seep into the openings of the system, e.g., air openings, gaps between covers.
- Use only recommended materials for cleaning and disinfection.

#### Recommended materials

In this paragraph, we distinguish between material used to disinfect the Cios mobile C-arm, and those used to disinfect the floor directly surrounding the mobile C-arm:

#### for US-market









Floor disinfection & Cios mobile C-arm disinfection using the ECOLAB Neutral Disinfectant Cleaner Floor disinfection & Cios mobile C-arm disinfection using the ECOLAB Quaternary Disinfectant Cleaner Floor disinfection & Cios mobile C-arm disinfection (including disinfection of Clostridium difficile spores) using the ECOLAB OxyCide™ Daily Disinfectant Cleaner Cios mobile C-arm disinfection using the ECOLAB Quaternary Disinfectant Wipes

ECOLAB® Neutral Disinfectant ECOLAB® Quaternary Disinfectant Cleaner ECOLAB® OxyCide™ Daily Disinfectant Cleaner ECOLAB® Quaternary Disinfectant Wipes

#### for EU-market







Cios mobile C-arm disinfection Standard Cios mobile C-arm disinfection including inactivation of Non-enveloped viruses or spores (sporulating bacteria): e.g. Hepatitis A Virus, Norovirus, Clostridia

Floor disinfection & Cios mobile C-arm disinfection using the ECOLAB Incidin Dry Wipe system

ECOLAB® Incidin® OxyWipes ECOLAB® Incidin® OxyFoam

ECOLAB® Incidin®
Pro 0.5 impregnated
mops & dry wipes



# General cleaning and disinfection instructions

#### While cleaning and disinfecting, wear gloves with chemical resistance.

- Always work from top to bottom (top down) and from clean to dirty areas.
- After removing blood, discard the wet wipe or mop. Use a new one to continue cleaning.
- Use mops and wipes only as long as they leave a closed liquid film on the surface.
- Dispose of used mops and wipes according the instructions of your facility.

# 1. Preparation

Disinfection of the floor in the direct environment of the mobile C-arm: An adequate number of mops must be prepared as needed for use (according to the dilution instructions for Incidin® Pro, and the instruction for impregnation of mops at your facility).

Surface disinfection of the mobile C-arm:

- The buckets of Incidin® Dry Wipes for disinfection of surfaces must be filled with Incidin Pro 0.5 %.
- Incidin® OxyWipes must be on hand.

The OR nurse determines when to start any intermediate disinfection. If necessary, the OR staff can give instructions to remove drapes from areas further away from the patients (e.g., C-arm) and disinfect those while the patient is present in the OR.

The mobile C-arm should be moved to the edge of the operating room. If the patient is still in the operating room, the disinfection of the mobile C-arm must not take place directly in the vicinity of the patient. Afterwards the drapes should be carefully removed and disposed of, to reduce the risk of contamination (when removing, turn inwards and make sure that any remaining liquids, etc., are not distributed during disposal. If used, remove the drapes from C-arm, patient table and control units.)

## 2. Intermediate disinfection

If there is visible soiling of the floor: disinfect the floor below and directly around the mobile C-arm. Visual inspection of all surfaces on the C-arm, C-arm chassis as well as all surfaces of the monitor cart for visible contamination. Proceed with targeted wipe disinfection of soiled areas before starting the actual surface disinfection workflow.

Use wet or impregnated dry wipes to disinfect the following surfaces, in the following order:







a) Monitor cart: display, mouse and handles



b) Mobile C-arm: handles



c) Mobile C-arm: handswitch





d) Mobile C-arm touch user interface/remote user interface

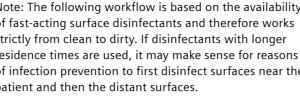


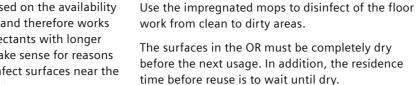
e) Tableside docking for remote control unit



f) Mobile C-arm: FD from top, front to bottom

Note: The following workflow is based on the availability of fast-acting surface disinfectants and therefore works strictly from clean to dirty. If disinfectants with longer residence times are used, it may make sense for reasons of infection prevention to first disinfect surfaces near the patient and then the distant surfaces.







g) Mobile C-arm FD (front)

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h) Mobile C-arm FD (bottom)



j) C-arm: single tank from top to bottom



I) Wireless footswitch





i) C-arm: inner surface

k) If possible, lift C-arm vertically

with motorisation.





The terminal disinfection procedure differs in some respects from intermediate disinfection. The most important change is that on C-arm main unit and the monitor cart, all surfaces get wipe-disinfected. The sequence of disinfection work remains unchanged,

3. Terminal disinfection of the mobile C-arm

but is supplemented by the following activities (have the C-arm raised beforehand; see item i).



m) Fins below the horizontal unit of the C-arm



n) Lifting column of the C-arm





o) Mobile C-arm: outer rail surfaces and cabling

# 4. Cleaning

To ensure good hygiene practice, preserve material integrity long-term and avoid any build-up of residues, a regular cleaning step is required. This cleaning step is important, no matter whether cleaner-disinfectants or just disinfectants are used for disinfection.

A cleaner-disinfectant enables a one-step process in most cases, pre-empting a cleaning step preceding each disinfection step. However, use of a cleanerdisinfectant does not replace a regular cleaning process. If the mobile C-arm is used heavily, a weekly cleaning procedure of all regularly disinfected surfaces is strongly recommended.

