

# THE CHANGE OF PERIOPERATIVE DESINFECTION OF KNEE JOINT SURGERY

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## The aim

The total amount of infections among total knee arthroplasty patients by orthopedics was too high in Central hospital of Central Finland. The whole perioperative procedure of knee joint surgery was surveyed in operating room (OR) to find any acts to improve.

Perioperative disinfection was one of the components which was closely evaluated.

## Background

It was found that preoperative disinfection was not performed by evidence-based guidelines and there were none written instructions.

Skin disinfection was done:

- with plain 80% Ethanol
- with too wet swaps
- observed runoff directions of ethanol liquid
- too many times.
- to lifted straight leg
- beginning from toes to ankle, continuing over knee down to hip
- by one-way draws



## Method

All orthopedic OR nurses was educated by same infection control nurse to use the new method.

The written guideline of skin disinfection method guides to:

- take ready to use applicator
- use coloured CHG-isopropanol solution
- start from incision site with curved knee
- paint up-and-down, side-to-side reaching all side of wrinkles and papules
- proceed from incision site
- extend to peripheral areas, without toes

## Result

Central Hospital of Central Finland took firstly this applicator to use for skin disinfections in knee joint surgery in Finland.

After briefing the orthopedic OR nurses are satisfied with updated disinfection guideline.

They find it:

- easy to use
- ready to use
- quick to use
- less waste



Nowadays this method has been implemented to all knee and hip surgery. Other hospitals have been interested and contacted asking for knowledge.

Referense:

Lancet Infect Dis 2016;16: e276–87:

*New WHO recommendations on preoperative measures for surgical site infection prevention: an evidence-based global perspective*