

# Triklosanbelagte suturer - hvor godt dokumentert er den infeksjonsforebyggende effekten?

Per Espen Akselsen, overlege, Regionalt kompetansesenter for smittevern i Helse Vest

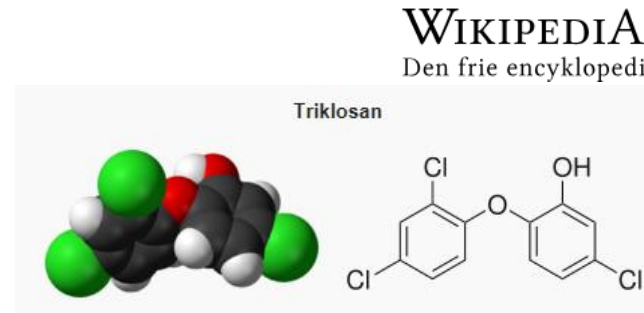
Liv Giske, Seniorforsker/PhD, Avdeling: Vurdering av tiltak, FHI

# Smittevernforums Årskonferanse 2023



Scandic Oslo Airport - Gardermoen/Oslo 17.- 18. oktober 2023

# Agenda

- Hva er triklosan?
- Hvordan kan triklosanbelagte suturer være infeksjonsforebyggende?
- Historikk
  - Litt om tidlige studier, kunnskapsoppsummeringer og anbefalinger
  - Forslag til nasjonal metodevurdering 2018
  - Diskusjon i det norske smittevernmiljøet
  - NICE guideline 2019
  - NICE Medical technologies guidance 2021
- Triklosanbelagte suturer til forebygging av infeksjoner i operasjonsområde: en fullstendig metodevurdering. Liv Giske, FHI



# Triclosan

 Publisert 25.02.2013    **Sist endret** 25.02.2013     Skriv ut

Triclosan er et syntetisk fremstilt kjemisk stoff som siden 60-tallet har vært anvendt i mange forskjellige typer produkter som middel for å drepe bakterier eller hindre oppvekst av bakterier. Det er godkjent som konserveringsmiddel i kosmetikk. Den hovedsakelige egentlige bruken er allikevel som middel mot plakk ved bruk i tannkrem og som middel mot ubehagelig kroppslukt ved bruk i deodoranter. Forsøk har vist at bruken kan forårsake at bakterier blir resistente ikke bare mot triclosan selv men også mot viktige antibiotika på grunn av kryssresistens. Det er dermed risiko for at denne unødvendige ikke-medisinske bruken kan bidra til det alvorlige globale problemet med antibiotika-resistens.

# Triklosan i vanlige produkter

- Såpe, tannkrem, sminke, deodorant, plaster, sportstøy.....



**Other:** Bionare® Cool Mist Humidifier; Deciguard AB® Antimicrobial Ear Plugs; Bauer® Re-Akt hockey helmet and 7500 hockey helmet; Miller Paint Acro Pure Interior Paint; Holmes Foot Buddy™ HMH120U Antimicrobial Foot Buddy Foot Warmer, Blue Mountain Wall Coverings, California Paints®, Davis Paint® Perfection, Hirschfield's Paint®, O'Leary Paint®, EHC AMRail Escalator Handrails, Dupont™ Air Filters, Winix Dehumidifiers, J Cloth® towels, select Quickie cleaning products, Kimberly Clark® WYPALL X30 Towels, Canopy® kitchen towels, ALUF Plastics®, BioEars earplugs, Petmate® LeBistro feeders and waterers, Infantino cart covers and baby carriers, Oreck XL®, Bissell Healthy Home Vacuum™, NuTone® Central Vacuum systems, Rivalo® Seal-A-Meal® Vacuum Food Sealer, CleenFreek SportsHygiene Yoga Mat, Resilite Sports Products, Rubbermaid® Coolers, Stufitts sports gear, Venture Products® fitness mats, Custom Building Products, DAP®Kwik Seal Plus®, Laticrete, Niasa Biquichamp® mortar grout and sealant, ProAdvanced Products.

FORBUDT I EU FRA 2017

| Triklosan forbruk i EU/EØS |         |
|----------------------------|---------|
| 2006                       | 2018    |
| 4 050 tonn                 | 10 tonn |

# Suturer belagt med triklosan



Monofilament  
Absorberbar

Flettet  
Absorberbar

Monofilament  
Absorberbar





Brukt i Helse Bergen siden 2010



# Forslag til nasjonal metodevurdering, desember 2017

Ethicon, Johnson & Johnson MD, a division of Janssen-Cilag AS

**Use of triclosan coated sutures are already endorsed in the guidelines for prevention of SSI, published by WHO, CDC and ACS together with SIS.**

(WHO. The Global Guidelines for Prevention of Surgical Site Infection. 2016.

Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, 2017  
American College of Surgeons and Surgical Infection Society: Surgical Site Infection Guidelines, 2016 Update)

**A national guideline for the use of triclosan coated sutures would:**

- **Improve patient outcomes**
- **Reduce health care costs**
- **Reduce the use of antibiotics**

(De Jonge et al. Meta-analysis and trial sequential analysis of triclosan-coated sutures for the prevention of surgical-site infection. BJS 2017; 104: e118–e133

D. J. Leaper, C. E. Edmiston Jr and C. E. Holy. Meta-analysis of the potential economic impact following introduction of absorbable antimicrobial sutures. BJS 2017 Jan;104(2):e134-e144

Thimour-Bergström et al. Triclosan-coated sutures reduce surgical site infection after open vein harvesting in coronary artery bypass grafting patients: a randomized controlled study. Eur J Cardiothorac Surg. 2013 Nov;44(5):931-8.)

- Internasjonale retningslinjer
- Reduksjon i SSSI (26%)
- Reduserte kostnader -200 mill NOK for norske sykehus
- Redusert antibiotikabruk – mindre resistens



**2016**

## Global guidelines on the prevention of surgical site infection

The panel suggests the use of triclosan-coated sutures for the purpose of reducing the risk of SSI, independent of the type of surgery.

*(Conditional recommendation, moderate quality of evidence)*



**2017**

## Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, 2017

2C. Consider the use of triclosan-coated sutures for the prevention of SSI. (Category II-weak recommendation; moderate-quality evidence suggesting a trade-off between clinical benefits and harms.)



**2017**

A statistically significant benefit of triclosan-coated sutures in reducing the risk of total incisional SSIs was demonstrated in our SR/MA, based on moderate quality RCTs data.



## National Institute for Health and Care Excellence

Guideline version (FINAL)

### Surgical site infection: prevention and treatment

[D] Evidence review for the effectiveness of closure materials and techniques in the prevention of surgical site infection

*NICE guideline NG125*

*Evidence reviews*

*April 2019*

- Streng protokoll
  - RCT med >200 pasienter
  - 13 studier
  - Low to high quality evidence
  - Sprowson 2018 ekskludert (2500 pasienter)

*When using sutures, consider using antimicrobial triclosan-coated sutures, especially for paediatric surgery, to reduce the risk of surgical site infection.*

**NICE** National Institute for  
Health and Care Excellence



## Plus Sutures for preventing surgical site infection

Medical technologies guidance  
Published: 28 June 2021

[www.nice.org.uk/guidance/mtg59](http://www.nice.org.uk/guidance/mtg59)

- Evidence *supports the case for adopting Plus Sutures as part of a bundle of care for preventing surgical site infection in the NHS for people who need wound closure after a surgical procedure when absorbable sutures are an appropriate option*
- 31 RCT, >14 000 pasienter
- Extensive evidence base of relatively high quality
- 30 % reduksjon i SSI
- Plus Sutures is *cost saving* compared with non-triclosan absorbable sutures by an average of *£13.62 per patient*. .....Cost savings will vary by surgery type and baseline risk of surgical site infection

# Noen spørsmål/motforestillinger

- Er det riktig å slå sammen vidt forskjellige inngrep med ulik patogenese for infeksjon og ulik insidens av infeksjoner?
- Er det et tilstrekkelig antall pasienter i studiene?
- Hvordan er det med overføringsverdien, hvis infeksjonsinsidens er mye lavere i Norge
  - Vil effekten være den samme?
  - Kost/nytte – numbers needed to treat?
- Mange av studiene er firmasponsede, betyr det noe?

