



LINKS OF INTEREST DISCLOSURE

Name of the speaker: Teija-Kaisa Aholaakko

I have no link of interest.



Pathways to improve surgical site infection prevention:

Aseptic practice recommendations for circulating operating theatre nurses

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The objectives of this presentation are

to inspect and discuss development of recommendations for aseptic practices (AP) in operating theatres (OT) for circulating nurses supervising and maintaining infection prevention during invasive procedures.



Co-creation of AP-recommendations

The local recommendations were co-created during continuous infection prevention development work between OT personnel in tertiary level hospital and higher education professional.



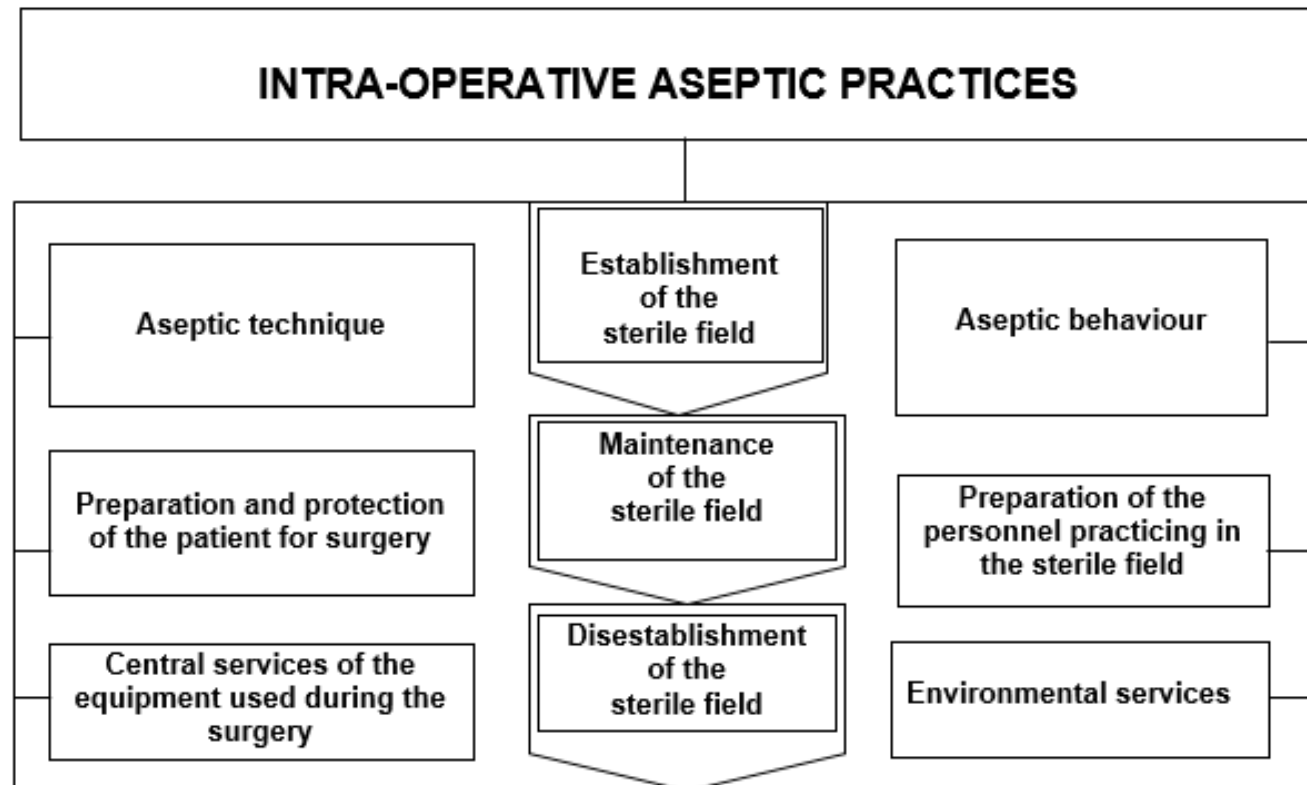
Development of local intra-operative AP-recommendations

- Started in 1995 -1996 in OTs of two Finnish Hospitals by observing aseptic technique (AT) according to AORN recommended practices
- The need for AP improvement was identified also by nurses
- Survey data was collected before (in 2000) and after AP-recommendation co-creation and documentation (in 2001)
- 31 breast operations were video recorded for stimulated recall interviews of circulating nurses (in 2003)
- Documents of 1042 breast patients were reviewed (2003)
- A follow-up survey was completed (2013)



The purpose of Intraoperative AP is

to control airborne, blood- and body fluid–borne, contact, and vector-associated contamination of the surgical patient, personnel, and environment during invasive operations



(Edited from original model published as: Aholaakko T-K and E Metsälä. 2015. Intra-operative aseptic practice recommendations for circulating operating theatre nurses. *British Journal of Nursing* 24(13):670,672,673,676-8)



Participation of the personnel

In 2000 survey: 105 of 221 (48%) persons responded (54% of nurses; 33% of physicians)

In 2001 survey: 106 of 234 (45%) persons responded (53% of nurses; 38% of physicians)

In 2013 survey: 73 of 242 nurses (31%) responded



Evolution of AP recommendations.

	2013 Mean (SD)	2001 Mean (SD)	2000 Mean (SD)
Establishment of Sterile Field			
Sterile indicators inspected before use ^{a)}	3.95 (0.278)	-	-
Indicator gloves taken for risk-operations ^{a)}	3.95 (0.213)	-	-
Not using sterile item after expiration date	3.94 (0.244)	3.46 (0.924)	3.59 (0.705)
Integrity of package inspected	3.89 (0.403)	3.86 (0.598)	3.98 (0.407)
Fluid transparency inspected before use ^{a)}	3.89 (0.362)	-	-
Not using damp sterile package*	3.86 (0.467)	3.85 (0.398)	3.86 (0.444)
Not using opened sterile package*	3.73 (0.623)	3.51 (0.745)	3.62 (0.713)
Fluids and medicines decanted near use ^{a)}	3.67 (0.714)	-	-
Filter needle used with liquids ^{a)}	3.61 (.748)	-	-
Sterile field created less than an hour before operation ^{a)}	3.23 (1.046)	3.46 (0.644)	3.38 (0.828)
Scale mean (SD) / Cronbach's α reliability coefficient	3.77 / 0.605		

Items reverted into 4-point scoring so that higher numbers represent stronger agreement to the recommendations

a) In 2013 updated recommendation



Evolution of AP recommendations..

Maintenance of Sterile Field	2013 Mean (SD)	2001 Mean (SD)	2000 Mean (SD)
Sterile field supervised constantly ^{a)}	3.85 (0.404)	-	-
OR doors kept closed during operation	3.80 (0.403)	3.51 (0.772)	3.35 (0.882)
Number of persons in OR limited during operation	3.75 (0.501)	3.65 (0.608)	3.54 (0.723)
Defects in aseptic practice documented	3.71 (0.744)	3.72 (0.472)	3.66 (0.495)
Unscrubbed person not moving between two sterile fields	3.66 (0.594)	3.39 (0.869)	3.26 (0.885)
Circulating nurse staying in OR during operation*	3.26 (0.776)	1.7 (0.955)	1.66 (0.855)
Intra-operative conversation aseptically important*	3.00 (0.901)	2.75 (0.918)	2.66 (0.888)
Scale mean (SD) / Cronbach's α reliability coefficient	3.58 / 0.639		

Items reverted into 4-point scoring so that higher numbers represent stronger agreement to the recommendations

a) [link](#) 2013 updated recommendation



Evolution of AP recommendations...

	2013	2001	2000
	Mean (SD)	Mean (SD)	Mean (SD)
Disestablishment of Sterile Field			
Gloves used during disestablishment of the sterile field ^{a)}	3.97(0.173)	-	-
Bloody gloves not removed outside OR^{* a)}	3.91(0.290)	-	-
Not disestablishing sterile field during wound closure^{* a)}	3.83(0.414)	-	-
Scale mean(SD) / Cronbach's α-reliability coefficient	3.90 / 0.617	-	-

* Items reverted into 4-point scoring so that higher numbers represent stronger agreement to the recommendations

a) In 2013 updated recommendation



The implementation of the recommendations

At four-point 21-item scale the total mean value of 3.44 and 0.782 Cronbach's α -reliability of the Recommended Aseptic Practices for Circulating Nurse-scale are acceptable, but is there multidisciplinary evidence enough to support the implementation of the scale?



What about these recommendations?

Establishment of the sterile field:

- Sterile field not created near patient's head
- Most upper packaging removed outside OT
- Sterile item not used if package damaged
- Sharps and heavy objects presented onto sterile field
- Sterile item not tossed onto sterile field

Maintenance of the sterile field:

- Unscrubbed person keep 50 cm distance to sterile field
- Blood spills disinfected immediately

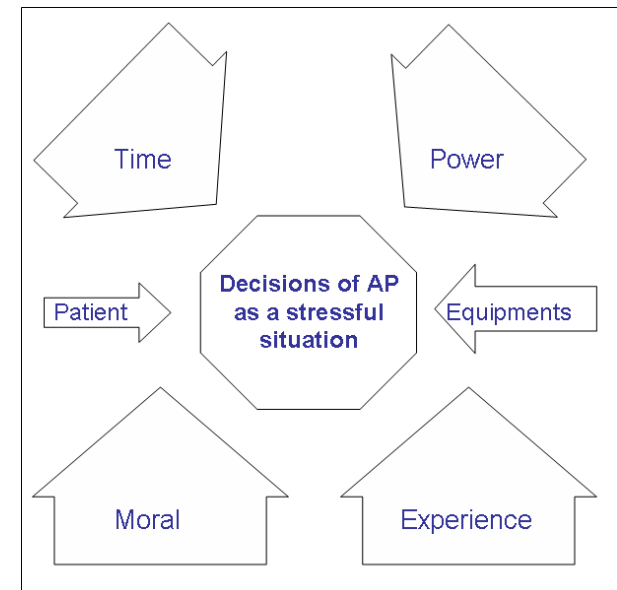
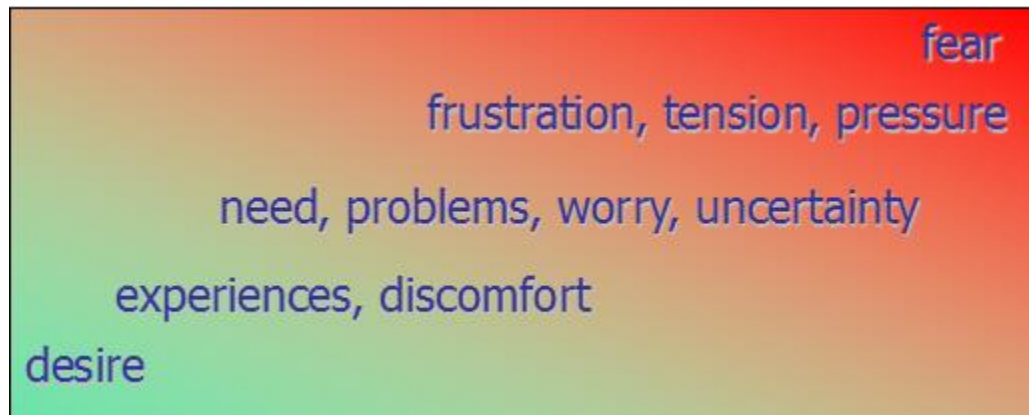
Disestablishment of the sterile field

- Hands disinfected after removing gloves
- Used needles not left to colleagues to put away



Results of stimulated recall interviews justify the AP-recommendation implementation

Variations in AP of circulating OT-nurses were observed after recommendation development and the AP-related stress was identified





Challenges to tackle in AP development

- Earning the trust among personnel
- Finding evidence for reasoning the APs
- Facilitating the recommendation adherence of the personnel
- Obstacles due organisational changes
- Difficulties in publishing local results
- Ethical limitations in testing the recommendations



How to continue AP-development?

In multiprofessional consortium ?

In transnational consortium ?



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Merci beaucoup! Kiitos paljon!

