

# Referanseliste neglelakk – Oversikt

Hygiene sykepleier Carl-Fredrik Borchgrevink-Lund, OUS

6 primærreferansene (4 + 2) på neglelakk og kunstige negler. 5 av disse har noen henvisninger til de andre 5.

- 4 undersøkkelse på neglelakk.
- 2 undersøkkelse på neglelakk og kunstige negler.

44 referanser til undersøkkelse/guidelines på neglelakk og kunstige negler.

- 6 henviser til 1 primærreferanse.
- 7 henviser til 2 primærreferanser.
- 4 henviser til 3 primærreferanser.

## Undersøkkelse på neglelakk

1. Baumgardner CA, Maragos CS, Larson EL. Effects of **nail polish** on microbial growth of fingernails: dispelling sacred cows. AORN J 1993;58:84–8.

- The purpose of our study was to determine the effects of nail polish on bacterial counts on fingernails.
- We did not find data to indicate an appropriate number of days to study microbial growth of fingernails; *therefore, we conducted a brief, informal survey of the OR staff members to determine the average length of time that nail polish remains on their nails before it is touched up or removed. The response was three to five days. Based on that survey, we chose four days as the length of time for nail polish to remain on the nails for this study.*
- **There were no significant differences in CFU counts between damaged and undamaged nails, either polished or unpolished, except on day four when the undamaged nails had higher counts** (38.1 versus 14.3 CFU, p = .009). We could not assess the difference in bacterial counts between nails with chipped and nonchipped polish because all but one subject had chipped polish.
  - **Summary:** Nail polish worn on short, healthy nails does not appear to be associated with increased microbial counts on the fingernails. Additional studies to examine the effect of wearing nail polish on other aspects of hand hygiene may be warranted, however.

2. Wynd CA, Samstag DE, Lapp AM. Bacterial carriage on the fingernails of OR nurses. AORN J 1994;60:796–805.

- Results of the study demonstrate that freshly applied **fingernail polish** does not contribute to bacterial carriage on the fingernails of OR nurses, either before or after a standardized surgical hand scrub.

- Freshly applied *nail polish* does not increase the number of bacteria recovered from periungual skin, but chipped nail polish may support the growth of larger numbers of organisms on fingernails (344,345).
    - Baumgardner CA, Maragos CS, Walz J, Larson E. Effects of nail polish on microbial growth of fingernails: dispelling sacred cows. AORN J 1993;58:84–8.
  
- 3. Fagernes M, Lingaas E. Factors interfering with the microflora on hands: a regression analysis of samples from 465 healthcare workers. J Adv Nurs. 2011 Feb;67(2):297-307.
  - Conclusions: Health care workers should remove finger rings and watches at work. Fingernails should be shorter than 2 mm, nail polish may be used. *No effect of nail polish was observed.*
    - Wynd CA, Samstag DE, Lapp AM. Bacterial carriage on the fingernails of OR nurses. AORN J 1994;60:796–805.
    - Baumgardner CA, Maragos CS, Walz J, Larson E. Effects of nail polish on microbial growth of fingernails: dispelling sacred cows. AORN J 1993;58:84–8.
  
- 4. Hardy JM, Owen TJ, Martinez SA, Jones LP, Davis MA. The effect of nail characteristics on surface bacterial counts of surgical personnel before and after scrubbing. Vet Surg 2017;46:952-61.
  - Conclusion: *Nail polish did not influence bacterial counts and types of isolates*, but nail length is a risk factor for increased bacterial counts. Based on our results, we recommend that nail length be kept under 2 mm.
    - Wynd CA, Samstag DE, Lapp AM. Bacterial carriage on the fingernails of OR nurses. AORN J 1994;60:796–805.
    - Baumgardner CA, Maragos CS, Walz J, Larson E. Effects of nail polish on microbial growth of fingernails: dispelling sacred cows. AORN J 1993;58:84–8.
    - Fagernes M, Lingaas E. Factors interfering with the microflora on hands: a regression analysis of samples from 465 healthcare workers. J Adv Nurs. 2011 Feb;67(2):297-307.

#### Undersøkelse på neglelakk og kunstige negler

- 5. Nail microbial colonization following hand disinfection: a qualitative pilot study. M.Z. Wałaszek, M. Kołpa, A. Rozanska, B. Jagiencarz-Starzec, Z. Wolak, J. Wojkowska-Mach. Journal of Hospital Infection 100 (2018) 207-210.
  - *Nail polish + gel nails*
  - Discussion: Our results indicate that for effective hand hygiene, keeping the nails at an appropriate length may be at least as important as *avoiding the use of nail varnish coatings*.

- Indeed **we found** that disinfection of hands with short varnished fingernails was in some instances as effective as in the control group; other studies have also reported that healthy short nails, even when **covered with varnish**, can be disinfected effectively. [3,5,6,9,10].
  - **Wynd CA, Samstag DE, Lapp AM.** Bacterial carriage on the fingernails of OR nurses. AORN J 1994;60:796–805.
  - **Fagernes M, Lingaas E.** Factors interfering with the microflora on hands: a regression analysis of samples from 465 healthcare workers. J Adv Nurs. 2011 Feb;67(2):297-307.
  - **Hardy JM, Owen TJ, Martinez SA, Jones LP, Davis MA. (4)** - The effect of nail characteristics on surface bacterial counts of surgical personnel before and after scrubbing. Vet Surg 2017;46:952-61.

6. **Evaluation of the bacterial burden of *gel nails*, standard *nail polish*, and natural nails on the hands of health care workers.** Angela L. Hewlett MD, MS, Heather Hohenberger MSN, RN, Caitlin N. Murphy PhD, Lindsay Helget MD, Heidi Hausmann MD, Elizabeth Lyden MS, Paul D. Fey PhD, Rodney Hicks PhD. American Journal of Infection Control 46 (2018) 1356-9.
- *Discussion: The results of this study show all 3 nail types (natural nail, nail polish, and gel polish) become more contaminated with bacteria over time, regardless of the nail product applied. The level of contamination appeared to plateau between days 7 and 14 of wear.*
  - *Conclusions: This study did not show an increased number of microorganisms on nails with gel polish; however, gel nails may be more difficult to clean using alcohol hand gel.* 9 underreferanser.
    - **Baumgardner CA, Maragos CS, Walz J, Larson E.** Effects of nail polish on microbial growth of fingernails: dispelling sacred cows. AORN J 1993;58:84–8.

#### Referanser til andres undersøkelser/guidelines (ikke egne) på neglelakk og kunstige negler

7. **Edel E., Houston S., Kennedy V. & LaRocco M. (1998).** "Impact of a **5-minute scrub** on the microbial flora found on **artificial, polished, or natural fingernails** of operating room personnel". Nursing Research 47(1); 54–59.
- Only one study has examined bacterial colonization associated with polished nails.
  - Surgical Hand Scrubs - AORN – artificial nails not to be worn...free from nail polish + Only one study has examined bacterial colonization associated with polished nails. **They concluded that perioperative nurses could wear fresh fingernail polish on healthy nails without risking increased bacterial counts.**
    - **Wynd CA, Samstag DE, Lapp AM.**

8. **Jewelry and Artificial Fingernails in the Health Care Environment: Infection Risk or Urban Legend?** Joshua White, M.D., Virginia Commonwealth University Health Systems, Richmond, Virginia. *Clinical Microbiology Newsletter* - Vol. 35, No. 8, April 15, 2013.
  - *Nail polish: The data linking nail polish to the carriage of increased numbers of pathogenic microorganisms on the hands are minimal and inconclusive.* However, it is reasonable to *ban nail polish from sterile environments* and in other areas to recommend that *polish be new* (for example, less than 4 days old, as recommended by Wynd et al. based on current evidence).
    - **Wynd CA, Samstag DE, Lapp AM.**
    - **Baumgardner CA, Maragos CS, Walz J, Larson E.**
    - **Fagernes M, Lingaas E.**
  
9. **Rubin DM. Prosthetic fingernails in the OR: a research study.** *Association of Operating Room Nurses Journal*, 1988, 47:944–945, 948.
  - *Artificial fingernails.*
  
10. **Gupta A et al. Outbreak of extended-spectrum betalactamase- producing *Klebsiella pneumoniae* in a neonatal intensive care unit linked to artificial nails.** *Infection Control and Hospital Epidemiology*, 2004, 25:210–215.
  - CONCLUSION: Short, well-groomed, natural nails should be mandatory for HCWs with direct patient contact (*Infect Control Hosp Epidemiol* 2004;25:210-215).
  - As a result of this investigation, an institution-wide ban on the wearing of artificial nails was implemented; HCWs with direct patient contact must have well- groomed, short, natural nails.
    - **Wynd CA, Samstag DE, Lapp AM.**
  
11. **Epic3: National evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England, 2014.** (532 referanser).
  - making sure that fingernails are short, clean, and free from false nails and nail polish;
  - *Kun en referanse har «nails» i tittel – men det er om artificial nails in a neonatal intensive care unit*
  
- Guidelines on hand hygiene in health care.** *Journal of Advanced Nursing*, 2006, 53:613–614. G. Hussein Rassool.
  - *artificial fingernails, surgical team.*
  
12. **WHO guidelines on hand hygiene in health care.** World Health Organization. 2009. Accessed 27.01.2016.
  - Do not wear artificial nails or nail polish.

- Wynd CA, Samstag DE, Lapp AM.
- Baumgardner CA, Maragos CS, Walz J, Larson E.
- Fagernes M, Lingaas E.

13. **Best Practices for Hand Hygiene in All Health – April 2014. – Public Health Ontario, Canada**

- *Nail polish*, if worn, must be fresh and free of cracks or chips. [BII]
- Artificial nails or nail enhancements must not be worn. [AI]
  - Wynd CA, Samstag DE, Lapp AM.
  - Baumgardner CA, Maragos CS, Walz J, Larson E.
  - Fagernes M, Lingaas E.

14. **Best Practices for Hand Hygiene In All Healthcare Settings and Programs - British Colombia 7.2012.**

- nail polish should not be worn
  - Wynd CA, Samstag DE, Lapp AM
  - Baumgardner CA, Maragos CS, Walz J, Larson E.
  - Fagernes M, Lingaas E.

15. **Hand hygiene Scotland Review ver.2.0. May 2016.**

- When providing patient care, nails should be kept short and clean and staff should not wear *false nails*.
- Therefore, because it is acknowledged that chipped nail products may act as a reservoir for microorganisms and thus pose an infection risk, it is recommended that nail products *should not be worn* by NHSScotland healthcare workers.
- *Artificial nails* should not be worn as they inhibit hand hygiene and pose an infection risk. Nail products should not be worn *as chips may harbour bacteria* and thus represent an infection risk. (Grade D recommendation) - (AGREE rating: Recommend).
  - Fagernes M, Lingaas E.

16. **Surgical hand antisepsis in the clinical setting. Scotland. December 2016.**

- it is recommended that nail products *should not be worn* by NHSScotland healthcare workers.

17. **Canadian Agency for Drugs and Technologies in health. Techniques and products - 11 July 2014.**

18. **Cochrane - Removal of *nail polish* and finger rings to prevent surgical infection (Review) – 2010. Arrowsmith VA, Maunder JA, Taylor**

- Authors' conclusions: Implications for practice: *There is insufficient trial evidence concerning the impact of no nailpolish, or fresh, or chipped nail polish on bacterial density on the fingernails of scrubbed personnel within operating theatres to draw any conclusions.*
  - **Wynd CA, Samstag DE, Lapp AM.**
  - **Baumgardner CA, Maragos CS, Walz J, Larson E.**

19. **NHMRC. Australian Guidelines for the Prevention and Control of Infection in Healthcare.** Commonwealth of Australia; 2010.

- *artificial nails*
- *both before and after hand washing.*

20. **Boyce JM, Pittet D. Guideline for Hand Hygiene in Health-Care Settings:** recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *Infect Control Hosp Epidemiol.* 2002;23(12 Suppl):S3-40.

- *both before and after hand washing.*
- *artificial nails*
  - **Wynd CA, Samstag DE, Lapp AM.**
  - **Baumgardner CA, Maragos CS, Walz J, Larson E.**

21. **Josephson D. Intravenous Infusion Therapy for Nurses: Principles & Practice:** Thomson Delmar Learning; 2003.

- *..if nail polish is worn, it should be clear (so as not to obliterate visible dirt under nails). Ingen referanser.*

22. **Morbidity and Mortality Weekly Report. (October 25, 2002). "Guideline for hand hygiene in health care settings".** Retrieved March 23, 2012 from <http://www.cdc.gov/mmwr/pdf/rr/rr5116.pdf>

- *Freshly applied nail polish does not increase the number of bacteria recovered from periungual skin, but chipped nail polish may support the growth of larger numbers of organisms on fingernails.*
  - **Wynd CA, Samstag DE, Lapp AM**
  - **Baumgardner CA, Maragos CS, Walz J, Larson E.**

23. **Association of Surgical Technologists (AST). (April 13, 2007). "Recommended Standards of Practice for Hand Hygiene and Fingernails".** Retrieved March 20, 2012 from [http://www.ast.org/uploadedFiles/Main\\_Site/Content/About\\_Us/Standard\\_Surgical\\_Attire\\_Surgical\\_Scrub.pdf](http://www.ast.org/uploadedFiles/Main_Site/Content/About_Us/Standard_Surgical_Attire_Surgical_Scrub.pdf)

24. **AST Standard and practice for surgical attire, surgical scrub, hand hygiene, hand washing.** Sterile surgical team - *artificial nails* should not be worn. *Nail polish*, if worn, should *be freshly applied and free of chips*. Studies have not established a correlation between the wearing of freshly applied nail polish and an increase in microbial growth. However, nails with chipped polish or polish that has been worn for more than *four days* harbor a greater number of bacteria as compared to unpolished nails.
25. **Centers for Disease Control and Prevention. Guideline for prevention of surgical site infection, 1999.** US Dept of Health and Human Services <http://www.cdc.gov/hicpac/pubs.html>. Accessed July 28, 2010.
- No recommendation on wearing nail polish. *Unresolved Issue*
    - S.258: *A surgical team* member who wears *artificial nails* may have increased bacterial and fungal colonization of the hands despite performing an adequate hand scrub. 212,213.
      - **Baumgardner CA, Maragos CS, Walz J, Larson E.**
26. **Pottinger J, Burns S, Manske C. Bacterial carriage by *artificial versus natural nails*.** Am J Infect Control 1989;17:340-4.
- Referanse til AORN, no *artificial nails when surgical scrub*.
  - The relationship between the wearing of *nail polish* or jewelry by surgical team members and SSI risk has *not been adequately studied*. 194,212,215,217(side 267): No recommendation on wearing nail polish. *Unresolved Issue*.
27. **Larson EL. APIC guideline for handwashing and hand antisepsis in health care settings.** Am J Infect Control 1995;23:251-69.
- **Baumgardner CA, Maragos CS, Walz J, Larson E.**
28. **Sandlin D. Did You Wash Your Hands? campaign.** J Perianesthesia Nursing 2007;22(2):139-41.
- Referer til CDC Hand Hygiene, skriver om *artificial nails*, ingen egne tester. Best-practice-guidelines-handhygiene - British Columbia 7.2012, over.
    - Omhandler surgical staff og implications on surgical site infections.
29. **Hoffman PN, Cooke EM, McCarville MR, Emmerson AM. Microorganisms isolated from skin under wedding rings worn by hospital staff.** Br Med J (Clin Res Ed) 1985;290:206-7.
- Bare om ringer.

30. Gruendemann BJ, Magnum SS. **Infection Prevention in Surgical Settings. Philadelphia, PA: WB Saunders Company; 2001.**
- Bok - <https://bournemouth.rl.talis.com/items/03E498CE-04C8-4BAA-5145-26637DB15E3E.html> -
  - Gjelder Surgical scrub – Freshly applied nail polish on well-manicured nails may be acceptable (ingen referanse). *...if permitted by facility policy..*
31. Bjerke NB. **The evolution: Handwashing to hand hygiene guidance. Critical Care Nursing Quarterly 2004 Jul;27(3):Jul.**
- Do not wear artificial fingernails or extenders when having direct contact with patients at high risk (eg, those in intensive care units or operating rooms).... polish free..
32. Ellingson K, Haas JP, Aiello AE, Kusek L, Maragakis LL, Olmsted RN, et al. **Strategies to prevent healthcare-associated infections through hand hygiene. Infection Control and Hospital Epidemiology 2014;35(SUPPL2):2014.**
- *To date, no evidence-based guidance on shellac (gel) nails or nailartexists. Policies regarding nail enhancements hinge on whether they are considered artificial nails or polish. A conservative approach treats them as artificial nails, **in which case they should not be allowed on HCP treating high-risk patients.** (1).*
    - (1). Boyce JM, Pittet D. *Guideline for hand hygiene in health-care settings: recommendations of the Healthcare Infection Control Practices Advisory Committee and the HIPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. Am J Infect Control 2002;30:S1–S46.*
33. Dryer LN. **Clean hands: protocol for maintaining proper hand hygiene. RDH 2010 Mar;30(3):62.**
- Om dental care provideres og håndhygiene – keep fingernails short, ...clean and free of nail polish and artificial nails and jewelry (except plain, nondecorated wedding rings)...(5,6).
    - 5. Mosby's Dental Hygiene: Concepts, Cases, and Competencies 2nd Edition by Susan J. Daniel RDH BS D.A.T.E. MS (Author), Sherry A. Harfst RDH BSDH MS (Author), Rebecca Wilder RDH BSDH MS (Author) – Lærebok.
34. Hughes NL. **Health & safety. Handwashing: going back to basics in infection control. American Journal of Nursing 2006 Jul;106(7):96.**
- Wearing *artificial fingernails* or extenders has been shown to increase subungual bacteria.
  - Sier ikke noe om nail polish.
35. Jumaa PA. **Hand hygiene: simple and complex. [Review] [113 refs]. International Journal of Infectious Diseases 2005 Jan;9(1):3-14.**



- Fingernails, nail technology and nail polish: Although most hand hygiene policies recommend that nail polish is not worn in clinical areas, there has been little work to investigate the effect of nail polish on the flora of fingernails and none linking nail polish with hospital-acquired infection.
  - Arrowsmith VA, Maunder JA, Seargent RJ, Taylor R. Removal of nail polish and finger rings to prevent surgical infection. Cochrane Database Syst Rev 2001; 4:CD003325.
  - A study on the fingernails of operating room nurses found increased bacterial counts associated with chipped nail polish or nail polish that had been worn for more than four days compared with fresh, intact polish. (92).
  - *Freshly applied nail polish on natural nails did no result in increased bacterial counts compared with unpolished natural nails.*
    - Wynd CA, Samstag DE, Lapp AM.

**36. Pellowe C. How to wash your hands. Midwives 2008 Aug/Sep. 11(4).**

- Om håndhygiene, hånddesinfeksjon, *ikke noe om neglelakk*. Referanse til epic2 + WHO.

**37. Ward DJ. Hand adornment and infection control. Br J Nurs 2007 Jun 14;16(11):654-6.**

- Ingen direkte henvisning til referanser.
- Fingernails: Guidelines and policies state that fingernails should be kept clean and short and **free from nail polish**.
- There is no literature implicating the wearing of nail polish in the actual transmission of infection. Baumgardner et al (1993) found that nail polish appears to have no detrimental influence if nails are short..... The main issue with the wearing of nail polish is when it chips, as this provides an uneven surface on the nail which can harbour microorganisms.
  - In areas where there is conflicting evidence, such as the wearing of nail polish, further research is needed to clarify current recommendations.
  - Wynd CA, Samstag DE, Lapp AM
  - Baumgardner CA, Maragos CS, Walz J, Larson E.

**38. Recommended practices for surgical hand antisepsis/hand scrubs. AORN J 2004 Feb;79(2):416-8.**

- Polish if used should not be chipped. Refererer til CDC hand hygiene.
  - Wynd CA, Samstag DE, Lapp AM
  - Baumgardner CA, Maragos CS, Walz J, Larson E.

**39. Association for Perioperative Practice. Standards and recommendations for safe perioperative practice. Harrogate: AfPP; 2007.**

- Plakat, sier ikke noe om nail polish.

40. **Boyce JM, Pittet D. Guideline for Hand Hygiene in Health-Care Settings: recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force.**

- Morbidity and Mortality Weekly Report - Recommendations and Reports October 25, 2002 / Vol. 51 / No. RR-16. + INFECT CONTROL HOSP EPIDEMIOL 2002 Dec;23(12 Suppl):S3-40.
- Freshly applied nail polish does not increase the number of bacteria recovered from periungual skin, but chipped nail polish may support the growth of larger numbers of organisms on fingernails.
  - **Wynd CA, Samstag DE, Lapp AM**
  - **Baumgardner CA, Maragos CS, Walz J, Larson E.**

41. **Woodhead K, Taylor EW, Bannister G, Chesworth T, Hoffman P, Humphreys H. Behaviours and rituals in the operating theatre.** A report from the Hospital Infection Society Working Party on Infection Control in Operating Theatres. J HOSP INFECT 2002 Aug;51(4):241-55.

- «scrub» staff in OR - ...*False fingernails* - Hedderwick et al. (72) have shown that false finger nails harbour pathogens, the longer they are worn the more likely it was that a pathogen would be isolated. ....recommendation that false nails should not be worn in the operating theatre.

42. **Association for perioperative practice. A guide to surgical hand antisepsis. (AfPP) 2014.**

- Plakat, sier ikke noe om nail polish.

43. **Canadian Agency for Drugs and Technologies in health. Techniques and products - 11 July 2014 Recommendations for surgical staff**

Nail polish should not be chipped. KEY FINDINGS - Two guidelines recommend that *artificial nails* and jewelry be removed prior to cleaning and soiled hands be washed with soap and water prior to surgical hand antisepsis. Conclusion: The guidelines stated that *artificial nails should not be worn* and all jewelry should be removed by surgical staff.

44. **Cochrane - Removal of nail polish and finger rings to prevent surgical infection (Review) - 2010**

- **Background** - .....Surgical scrubbing prior to surgery reduces the number of bacteria on the skin, but wearing rings and nail polish on the fingers may reduce the efficacy of scrubbing, as bacteria may remain in microscopic imperfections of nail polish and on the skin beneath rings.

- **Main results** - We identified: no new trials; no randomised controlled trials (RCTs) that compared wearing of rings with the removal of rings; and no trials of nail polish versus no nail polish that measured surgical infection rates.

#### **Authors' conclusions**

- No trials have investigated whether wearing nail polish or finger rings affects the rate of surgical wound infection. There is insufficient evidence to determine whether wearing nail polish affects the number of bacteria on the skin post-scrub.

#### **Side 4/21: PLAIN LANGUAGE SUMMARY**

- *No evidence to show whether removing nail polish and finger rings prevents wound infection after surgery.*

#### **Authors' conclusions**

- Implications for practice: *There is insufficient trial evidence concerning the impact of no nail polish, or fresh, or chipped nail polish on bacterial density on the fingernails of scrubbed personnel within operating theatres to draw any conclusions.* There are no RCTs that assess surgical wound infection rates when surgical scrub personnel wear, or remove, finger rings or nail polish. Given the lack of evidence for either the safety or the harm that may be associated with nail polish and finger rings, health care organisations must continue to develop institutional policies based on expert opinion.

45. Hautemaniere A, Cunat L, Diguio N, Vernier N, Schall C, Daval MC, et al. **Factors determining poor practice in *alcoholic gel* hand rub technique in hospitalworkers.** J Infect Public Health 2010;3:25e34.

- use of alcohol-based hand gel. Wearing wedding rings or long sleeves, and having varnished nails, visibly dirty hands prior to washing and cutaneous lesions were not associated with effective *gel use*.

46. **Guidelines on hand hygiene in health care 2006.** Edited by G. Hussein Rassool. The Author. Journal compilation 2006 Blackwell Publishing Ltd. *Sier ikke noe om nail polish.*

47. **2005-AORN\_Journal - Recommended Practices for surgical attire.**

- *....however, **nail polish** that is obviously chipped or worn longer than four days is associated with the presence of greater numbers of bacteria and has been associated with infections.*
- Recent studies found no increase in microbial growth related to wearing freshly applied nail polish; however, nail polish that is obviously chipped or worn longer than four days is associated with the presence of greater numbers of bacteria and has been associated with infections.
- Artificial nails should not be worn.

48. **1999-AORN\_Journal - Recommended Practices for surgical hand scrubs** – Discussion: The traditional recommendation against nail polish has had little supporting research, and recent studies found no increase in microbial growth related to the wearing of freshly applied nail polish.

- Recent studies found no increase in microbial growth related to wearing freshly applied nail polish,
- Available data suggest that *nail polish* that is obviously chipped or worn for more than four days has a tendency to harbor greater numbers of bacteria. ... They concluded that perioperative nurses could wear fresh fingernail polish on healthy nails without risking increased bacterial counts.
  - **Wynd CA, Samstag DE, Lapp AM**
  - **Baumgardner CA, Maragos CS, Walz J, Larson E.**

49. **Rayan, Floumoy, “Microbiologic flora of human fingernails - 605-607.**

- *Er underreferanse til Wynd et al.*
- *Isolation of microorganisms from **the fingernails of all the patients** in our study indicates that fingernails can be a source of contamination and emphasizes the importance of nail hygiene in health care personnel to prevent nosocomial infections.*
  - Sier noe om neglelengde, bakterieflora på negler, ikke noe om nail polish.
  - Heavy bacterial growth occurred in fingernails that were more than 1 mm in length, in spite of "adequate" preoperative hand scrubbing with Betadine, when the nails did not have adequate brushing.

50. **Nasjonal veileder for håndhygiene - Juli 2017 –FHI.**

- *Klinisk helsepersonell bør ikke benytte neglelakk, inkludert gelélakk (Gradering II).*
- *Hendene må være fri for ringer, armbåndsår, armbånd, kunstige negler, neglepynt, **neglelakk** og lange negler.*
  - *Det er uavklart hvorvidt bruk av neglelakk påvirker den mikrobiologiske floraen på helsepersonells hender. De få studiene som er gjennomført antyder at nylig påført neglelakk ikke påvirker forekomsten av mikroorganismer, mens krakelert eller avskallet neglelakk kan gi økt mengde av mikroorganismer,.....*