DAFTAR PUSTAKA

1. WHO guidelines for safe surgery : 2009 : safe surgery saves lives., (2009).
2. Chen LF, Arduino JM, Sheng S, Muhlbaier LH, Kanafani ZA, Harris AD, et al. Epidemiology and outcome of major postoperative infections following cardiac surgery: risk factors and impact of pathogen type. Am J Infect Control. 2012;40(10):963-8.
3. Suchitra JB, Lakshmidevi N. Surgical site infections: Assessing risk factors, outcomes and antimicrobial sensitivity patterns. Afr J Microbiol Res. 2009;3(4):175-9.
4. Manniën J, Jan C. Wille, Ruud L. M. M. Snoeren, Hof Susan vd. Impact of Postdischarge Surveillance on Surgical Site Infection Rates for Several Surgical Procedures: Results From the Nosocomial Surveillance Network in The Netherlands. Infect Control Hosp Epidemiol. 2006;27(8):809-16.
5. Urban JA. Cost analysis of surgical site infections. Surg Infect. 2006;7 Suppl 1:S19-22.
6. Allegranzi B, Bagheri Nejad S, Combescure C, Graafmans W, Attar H, Donaldson L, et al. Burden of endemic health-care-associated infection in developing countries: systematic review and meta-analysis. Lancet. 2011;377(9761):228-41.
7. Zarb P, Coignard B, Griskeviciene J, Muller A, Vankerckhoven V, Weist K, et al. The European Centre for Disease Prevention and Control (ECDC) pilot point prevalence survey of healthcare-associated infections and antimicrobial use. Euro Surveill. 2012;17(46).
8. Magill SS, Hellinger W, Cohen J, Kay R, Bailey C, Boland B, et al. Prevalence of healthcare-associated infections in acute care hospitals in Jacksonville, Florida. Infect Control Hosp Epidemiol. 2012;33(3):283-91.
9. Gastmeier P, Geffers C, Brandt C, Zuschneid I, Sohr D, Schwab F, et al. Effectiveness of a nationwide nosocomial infection surveillance system for reducing nosocomial infections. J Hosp Infect. 2006;64(1):16-22.

10. Behnke M, Hansen S, Leistner R, Diaz LAP, Gropmann A, Sohr D, et al. Nosocomial Infection and Antibiotic Use: A Second National Prevalence Study in Germany. Dtsch Arztebl Int. 2013;110(38):627-33.
11. Reilly J, Cairns S, Fleming S, Hewitt D, Lawder R, Robertson C, et al. Scottish National Point Prevalence Survey of Healthcare Associated Infection and Antimicrobial Prescribing 2011. Glasgow: NHS National Services Scotland, 2012.
12. Szilagyi E, Borocz K, Gastmeier P, Kurcz A, Horvath-Puho E. The national nosocomial surveillance network in Hungary: results of two years of surgical site infection surveillance. J Hosp Infect. 2009;71(1):74-80.
13. Astagneau P, L'Heriteau F, Daniel F, Parneix P, Venier AG, Malavaud S, et al. Reducing surgical site infection incidence through a network: results from the French ISO-RAISIN surveillance system. J Hosp Infect. 2009;72(2):127-34.
14. Fiorio M, Marvaso A, Vigano F, Marchetti F. Incidence of surgical site infections in general surgery in Italy. Infection. 2006;34(6):310-4.
15. Petrosillo N, Drapeau CMJ, Nicastri E, Martini L, Ippolito G, Moro ML, et al. Surgical site infections in Italian Hospitals: a prospective multicenter study. BMC Infect Dis. 2008;8:34-.
16. Moro ML, Morsillo F, Tangenti M, Mongardi M, Pirazzini MC, Ragni P. Rates of surgical-site infection: an international comparison. Infect Control Hosp Epidemiol. 2005;26(5):442-8.
17. Duerink DO, Roeshadi D, Wahjono H, Lestari ES, Hadi U, Wille JC, et al. Surveillance of healthcare-associated infections in Indonesian hospitals. J Hosp Infect. 2006;62(2):219-29.
18. Haryanti L, Pudjiadi AH, Ifran EKB, Thayeb A, Amir I, Hegar B. Prevalens dan Faktor Risiko Infeksi Luka Operasi Pasca-bedah. Sari Pediatri. 2013;15(4).
19. Donald GW, Sunjaya D, Lu X, Chen F, Clerkin B, Eibl G, et al. Perioperative antibiotics for surgical site infection in

pancreaticoduodenectomy: does the SCIP-approved regimen provide adequate coverage? Surgery. 2013;154(2):190-6.

20. Montes CV, Vilar-Compte D, Velazquez C, Golzarri MF, Cornejo-Juarez P, Larson EL. Risk factors for extended spectrum beta-lactamase-producing *Escherichia coli* versus susceptible *E. coli* in surgical site infections among cancer patients in Mexico. Surg Infect. 2014;15(5):627-34.
21. S Sahu Js, P Sachan, P Gupta. Superficial Incisional Surgical Site Infection In Elective Abdominal Surgeries - A Prospective Study. The Internet Journal of Surgery. 2009; Volume 26.
22. Kasatpibal N, Jamulitrat S, Chongsuvivatwong V. Standardized incidence rates of surgical site infection: a multicenter study in Thailand. Am J Infect Control. 2005;33(10):587-94.
23. Ramcharan AA, den Heijer CD, Smeets EE, Rouflart MM, van Tiel FH, Bruggeman CA, et al. Microbiology of surgical site infections after gastrointestinal surgery in the south region of The Netherlands. Future Microbiol. 2014;9(3):291-8.
24. Sarma JB, Bhattacharya PK, Kalita D, Rajbangshi M. Multidrug-resistant Enterobacteriaceae including metallo-beta-lactamase producers are predominant pathogens of healthcare-associated infections in an Indian teaching hospital. Indian J Med Microbiol. 2011;29(1):22-7.
25. Kariadi LMRD. Data peta medan kuman kariadi 2011-2012. In: Kariad BMRD, editor. Semarang2012.
26. Mangram AJ, Horan TC, Pearson ML, Silver LC, Jarvis WR. Guideline for prevention of surgical site infection, 1999. Hospital Infection Control Practices Advisory Committee. Infect Control Hosp Epidemiol. 1999;20(4):250-78; quiz 79-80.
27. Kluytmans JA, Wertheim HF. Nasal carriage of *Staphylococcus aureus* and prevention of nosocomial infections. Infection. 2005;33(1):3-8.
28. Rao N, Cannella B, Crossett LS, Yates AJ, Jr., McGough R, 3rd. A preoperative decolonization protocol for *Staphylococcus aureus* prevents orthopaedic infections. Clin Orthop Relat Res. 2008;466(6):1343-8.

29. Swenson BR, Hedrick TL, Metzger R, Bonatti H, Pruett TL, Sawyer RG. Effects of Preoperative Skin Preparation on Postoperative Wound Infection Rates: A Prospective Study of 3 Skin Preparation Protocols. Infect Control Hosp Epidemiol. 2009;30(10):964-71.
30. James J. Champoux WLD, Frederick C. Neidhardt, James J. Plorde, Md. Sherris-Medical Microbiology: An Introduction To Infectious Diseases. Sherris JC, editor. United States of America: The McGraw-Hill Companies; 2004.
31. Cynthia Nau Cornelissen BDF, Richard A. Harvey. Lippincott's Illustrated Reviews: Microbiology. third edition ed. Philadelphia: Lippincott Williams & Wilkins; 2013.
32. Brooks GF, Carroll KC, Butel JS, Morse SA. Jawetz, Melnick, Adelberg's Medical Microbiology. twenty fourth edition ed. United States of America: The McGraw-Hill Companies; 2007. 829 p.
33. Grice EA, Segre JA. The skin microbiome. Nature reviews Microbiology. 2011;9(4):244-53.
34. Marples RR. Sex, constancy, and skin bacteria. Arch Dermatol Res. 1982;272(3-4):317-20.
35. Fierer N, Hamady M, Lauber CL, Knight R. The influence of sex, handedness, and washing on the diversity of hand surface bacteria. Proc Natl Acad Sci U S A. 2008;105(46):17994-9.
36. Giacomoni PU, Mammone T, Teri M. Gender-linked differences in human skin. J Dermatol Sci. 2009;55(3):144-9.
37. Lipsky BA, Pecoraro RE, Chen MS, Koepsell TD. Factors affecting staphylococcal colonization among NIDDM outpatients. Diabetes care. 1987;10(4):483-6.
38. Niederman MS, Merrill WW, Ferranti RD, Pagano KM, Palmer LB, Reynolds HY. Nutritional Status and Bacterial Binding in the Lower Respiratory Tract in Patients with Chronic Tracheostomy. Ann Intern Med. 1984;100(6):795-800.

39. Olsen K, Danielsen K, Wilsgaard T, Sangvik M, Sollid JUE, Thune I, et al. Obesity and *Staphylococcus aureus* Nasal Colonization among Women and Men in a General Population. PLoS One. 2013;8(5):e63716.
40. Schwarzkopf R, Russell TA, Shea M, Slover JD. Correlation between nutritional status and *Staphylococcus* colonization in hip and knee replacement patients. Bull NYU Hosp Jt Dis. 2011;69(4):308-11.
41. Elsner P. Antimicrobials and the skin physiological and pathological flora. Curr Probl Dermatol. 2006;33:35-41.
42. Dethlefsen L, Relman DA. Incomplete recovery and individualized responses of the human distal gut microbiota to repeated antibiotic perturbation. Proc Natl Acad Sci U S A. 2011;108 Suppl 1:4554-61.
43. Dethlefsen L, Huse S, Sogin ML, Relman DA. The pervasive effects of an antibiotic on the human gut microbiota, as revealed by deep 16S rRNA sequencing. PLoS biology. 2008;6(11):e280.
44. Antonopoulos DA, Huse SM, Morrison HG, Schmidt TM, Sogin ML, Young VB. Reproducible community dynamics of the gastrointestinal microbiota following antibiotic perturbation. Infect Immun. 2009;77(6):2367-75.
45. Barrufet MP, Vendrell E, Force L, Sauca G, Rodriguez S, Martinez E, et al. Prevalence and risk factors for meticillin-resistant *Staphylococcus aureus* in an acute care hospital and long-term care facilities located in the same geographic area. Rev Esp Quimioter. 2014;27(3):190-5.
46. Sahoo KC, Sahoo S, Marrone G, Pathak A, Lundborg CS, Tamhankar AJ. Climatic Factors and Community — Associated Methicillin-Resistant *Staphylococcus aureus* Skin and Soft-Tissue Infections — A Time-Series Analysis Study. Int J Environ Res Public Health. 2014;11(9):8996-9007.
47. El Farran CA, Sekar A, Balakrishnan A, Shanmugam S, Arumugam P, Gopalswamy J. Prevalence of biofilm-producing *Staphylococcus epidermidis* in the healthy skin of individuals in Tamil Nadu, India. Indian J Med Microbiol. 2013;31(1):19-23.

48. Ariyo RVB, Lestari ES. Faktor-Faktor Risiko Yang Mempengaruhi Kolonisasi *Staphylococcus aureus* Pada Atlet Taekwondo Di Semarang [Undergraduate Thesis]. Semarang: Diponegoro University; 2011.
49. Isa RM, Lestari ES. Faktor Risiko Kolonisasi *Staphylococcus aureus* Pada Pegulat [Undergraduate Thesis]. Semarang: Diponegoro University; 2011.
50. Robie RM, Lestari ES. Faktor Risiko Kolonisasi *Staphylococcus aureus* Pada Atlet Sepak Bola Di Semarang Risk Factors Of *Staphylococcus aureus* Colonization In Soccer Athletes In Semarang [Undergraduate Thesis]. Semarang: Diponegoro University; 2011.
51. Setiawan DS. Faktor Risiko Kolonisasi *Enterobacteriaceae* Pada Nasofaring Dewasa [Undergraduate Thesis]. Semarang: Diponegoro University; 2011.
52. Erwanti G. Faktor Risiko Kolonisasi *Enterobacteriaceae* Pada Nasofaring Anak [Undergraduate Thesis]. Semarang: Diponegoro University; 2011.
53. Horan TC, Culver DH, Gaynes RP, Jarvis WR, Edwards JR, Reid CR. Nosocomial infections in surgical patients in the United States, January 1986-June 1992. National Nosocomial Infections Surveillance (NNIS) System. Infect Control Hosp Epidemiol. 1993;14(2):73-80.
54. McLaws ML, Murphy C, Keogh G. The validity of surgical wound infection as a clinical indicator in Australia. Aust N Z J Surg. 1997;67(10):675-8.
55. Khuri SF, Daley J, Henderson W, Hur K, Gibbs JO, Barbour G, et al. Risk adjustment of the postoperative mortality rate for the comparative assessment of the quality of surgical care: results of the National Veterans Affairs Surgical Risk Study. J Am Coll Surg. 1997;185(4):315-27.
56. Vincent C, Moorthy K, Sarker SK, Chang A, Darzi AW. Systems approaches to surgical quality and safety: from concept to measurement. Ann Surg. 2004;239(4):475-82.
57. Talbot TR, Bratzler DW, Carrico RM, Diekema DJ, Hayden MK, Huang SS, et al. Public Reporting of Health Care–Associated Surveillance Data: Recommendations From the Healthcare Infection Control Practices Advisory Committee. Ann Intern Med. 2013;159(9):631-5.

58. Burke JP. Infection Control — A Problem for Patient Safety. N Engl J Med. 2003;348(7):651-6.
59. RI Depkes. Undang-Undang Republik Indonesia Nomor 44 Tahun 2009 Tentang Rumah Sakit. Jakarta: Kemenkes RI: 2009.
60. Magill SS, Edwards JR, Bamberg W, Beldavs ZG, Dumyati G, Kainer MA, et al. Multistate Point-Prevalence Survey of Health Care–Associated Infections. N Engl J Med. 2014;370(13):1198-208.
61. Daniati M. Studi Deskriptif Tentang Peran Perawat Dalam Pengendalian Infeksi Nosokomial Di Rumah Sakit Umum Daerah Kota Semarang [Undergraduate Thesis]. Semarang: Universitas Muhammadiyah Semarang; 2009.
62. Horan TC, Gaynes RP, Martone WJ, Jarvis WR, Grace Emori T. CDC definitions of nosocomial surgical site infections, 1992: A modification of CDC definitions of surgical wound infections. Am J Infect Control.20(5):271-4.
63. Prospero E, Cavicchi A, Bacelli S, Barbadoro P, Tantucci L, D'Errico MM. Surveillance for surgical site infection after hospital discharge: a surgical procedure-specific perspective. Infect Control Hosp Epidemiol. 2006;27(12):1313-7.
64. Control CD, Prevention. Surgical site infection (SSI) event. Atlanta: CDC. 2013.
65. Jain BK, Banerjee M. Surgical Site Infections And Its Risk Factors In Orthopaedics: A Prospective Study In Teaching Hospital Of Central India. Int J Res Med. 2013;2(1):110-3.
66. Dimick JB, Chen SL, Taheri PA, Henderson WG, Khuri SF, Campbell DA, Jr. Hospital costs associated with surgical complications: a report from the private-sector National Surgical Quality Improvement Program. J Am Coll Surg. 2004;199(4):531-7.
67. Whitehouse JD, Friedman ND, Kirkland KB, Richardson WJ, Sexton DJ. The impact of surgical-site infections following orthopedic surgery at a community hospital and a university hospital: adverse quality of life, excess

length of stay, and extra cost. Infect Control Hosp Epidemiol. 2002;23(4):183-9.

68. Coello R, Charlett A, Wilson J, Ward V, Pearson A, Borriello P. Adverse impact of surgical site infections in English hospitals. J Hosp Infect. 2005;60(2):93-103.
69. Garcia HJ, Rodriguez-Medina X, Franco-Gutierrez M, Miranda-Novales G, Villegas-Silva R. [Risk factors for surgical site infections in newborns in a neonatal intensive care unit]. Rev Invest Clin. 2005;57(3):425-33.
70. Maksimović J, Marković-Denić L, Bumbaširević M, Marinković J, Vlajinac H. Surgical Site Infections in Orthopedic Patients: Prospective Cohort Study. Croat Med J. 2008;49(1):58-65.
71. Mawalla B, Mshana S, Chalya P, Imirzalioglu C, Mahalu W. Predictors of surgical site infections among patients undergoing major surgery at Bugando Medical Centre in Northwestern Tanzania. BMC Surg. 2011;11(1):21.
72. Afifi IK, Baghagho EA. Three Months Study Of Orthopaedic Surgical Site Infections In An Egyptian University Hospital. Int J Infect Control. 2010;6(1):1-6.
73. Olsen MA, Nepple JJ, Riew KD, Lenke LG, Bridwell KH, Mayfield J, et al. Risk factors for surgical site infection following orthopaedic spinal operations. J Bone Joint Surg Am. 2008;90(1):62-9.
74. Kaye KS, Schmit K, Pieper C, Sloane R, Caughlan KF, Sexton DJ, et al. The effect of increasing age on the risk of surgical site infection. J Infect Dis. 2005;191(7):1056-62.
75. van Walraven C, Musselman R. The Surgical Site Infection Risk Score (SSIRS): A Model to Predict the Risk of Surgical Site Infections. PLoS One. 2013;8(6):e67167.
76. Munoz P, Hortal J, Giannella M, Barrio JM, Rodriguez-Creixems M, Perez MJ, et al. Nasal carriage of *S. aureus* increases the risk of surgical site infection after major heart surgery. J Hosp Infect. 2008;68(1):25-31.

77. Borriello SP, Murray PR, Funke G. Topley and Wilson's Microbiology and Microbial Infections: Bacteriology: Hodder Arnold; 2007.
78. Grice EA, Kong HH, Renaud G, Young AC, Bouffard GG, Blakesley RW, et al. A diversity profile of the human skin microbiota. Genome Res. 2008;18(7):1043-50.
79. Dominguez-Bello MG, Costello EK, Contreras M, Magris M, Hidalgo G, Fierer N, et al. Delivery mode shapes the acquisition and structure of the initial microbiota across multiple body habitats in newborns. Proc Natl Acad Sci U S A. 2010;107(26):11971-5.
80. Grice EA, Kong HH, Conlan S, Deming CB, Davis J, Young AC, et al. Topographical and temporal diversity of the human skin microbiome. Science. 2009;324(5931):1190-2.
81. Akoua Koffi C, Dje K, Toure R, Guessennd N, Acho B, Faye Kette H, et al. [Nasal carriage of meticillin-resistant *Staphylococcus aureus* among health care personnel in Abidjan (Cote d'lvoire)]. Dakar Med. 2004;49(1):70-4.
82. McBride ME, Duncan WC, Knox JM. The environment and the microbial ecology of human skin. Appl Environ Microbiol. 1977;33(3):603-8.
83. Faergemann J, Larko O. The effect of UV-light on human skin microorganisms. Acta Derm Venereol Suppl (Stockh). 1987;67(1):69-72.
84. Kampf G, Kramer A. Epidemiologic Background of Hand Hygiene and Evaluation of the Most Important Agents for Scrubs and Rubs. Clin Microbiol Rev. 2004;17(4):863-93.
85. Todar K. Todar's Online Textbook of Bacteriology: University of Wisconsin-Madison Department of Bacteriology; 2006.
86. Ki V, Rotstein C. Bacterial skin and soft tissue infections in adults: A review of their epidemiology, pathogenesis, diagnosis, treatment and site of care. Can J Infect Dis Med Microbiol. 2008;19(2):173-84.
87. Grice EA. The skin microbiome: potential for novel diagnostic and therapeutic approaches to cutaneous disease. Semin Cutan Med Surg. 2014;33(2):98-103.

88. Gong JQ, Lin L, Lin T, Hao F, Zeng FQ, Bi ZG, et al. Skin colonization by *Staphylococcus aureus* in patients with eczema and atopic dermatitis and relevant combined topical therapy: a double-blind multicentre randomized controlled trial. Br J Dermatol. 2006;155(4):680-7.
89. Higaki S, Morohashi M, Yamagishi T, Hasegawa Y. Comparative study of staphylococci from the skin of atopic dermatitis patients and from healthy subjects. Int J Dermatol. 1999;38(4):265-9.
90. Acton DS, Plat-Sinnige MJ, van Wamel W, de Groot N, van Belkum A. Intestinal carriage of *Staphylococcus aureus*: how does its frequency compare with that of nasal carriage and what is its clinical impact? Eur J Clin Microbiol Infect Dis. 2009;28(2):115-27.
91. Beigi R, Hanrahan J. *Staphylococcus aureus* and MRSA colonization rates among gravidas admitted to labor and delivery: a pilot study. Infect Dis Obstet Gynecol. 2007;2007:70876.
92. Kluytmans J, van Belkum A, Verbrugh H. Nasal carriage of *Staphylococcus aureus*: epidemiology, underlying mechanisms, and associated risks. Clin Microbiol Rev. 1997;10(3):505-20.
93. Leyden JJ, McGinley KJ, Mills OH, Kligman AM. Age-related changes in the resident bacterial flora of the human face. The Journal of investigative dermatology. 1975;65(4):379-81.
94. Herwaldt LA, Cullen JJ, French P, Hu J, Pfaller MA, Wenzel RP, et al. Preoperative risk factors for nasal carriage of *Staphylococcus aureus*. Infect Control Hosp Epidemiol. 2004;25(6):481-4.
95. Zervou FN, Zacharioudakis IM, Ziakas PD, Mylonakis E. MRSA Colonization and Risk of Infection in the Neonatal and Pediatric ICU: A Meta-analysis. Pediatrics. 2014;133(4):e1015-e23.
96. Organization WH. Mean Body Mass Index (BMI): World Health Organization [cited 20 January 2015]. Available from:http://www.who.int/gho/ncd/risk_factors/bmi_text/en/.
97. Pedoman Praktis Memantau Status Gizi Orang Dewasa, (2011).

98. Syarif A, Estuningtyas A, Setiawati A, Muchtar A, Arif A, Bahry B, et al. Farmakologi dan Terapi. Edisi 5 ed. Jakarta: Badan Penerbit FKUI; 2007.
99. Katzung BG. Farmakologi Dasar dan Klinik (Basic and Clinical Pharmacology). Edisi 10 ed. Jakarta: EGC; 2010.
100. CDC. Antibiotic Resistance Threats In The United States, 2013. Georgia: Centers for Disease Control and Prevention, (DHQP) DoHQP; 2013.
101. Usman H. Antibiotic usage and antimicrobial resistance in indonesia [Doctoral thesis]. Surabaya: Airlangga University Press; 2009.
102. Zafar F, Ahmed KZ, Naz A, Naveed S. Surveillance Of Surgical Site Infections In Karachi, Pakistan. Res J Pharm Technol. 2012;2(1).
103. Jane V. Trinh MD, Luke F. Chen M, Daniel J. Sexton MD, Deverick J. Anderson MD. Risk Factors for Gram-Negative Bacterial Surgical Site Infection: Do Allergies to Antibiotics Increase Risk. Infect Control Hosp Epidemiol. 2009;30(5):440-6.
104. Weinstein RA, Gaynes R, Edwards JR, System NNIS. Overview of Nosocomial Infections Caused by Gram-Negative Bacilli. Clin Infect Dis. 2005;41(6):848-54.
105. Hans N. *Escherichia coli* 2013 [cited 2015 Jan 20]. Available from: http://www.microbiologyinpictures.com/escherichia%20coli.html.
106. Vogt RL, Dippold L. *Escherichia coli* O157:H7 outbreak associated with consumption of ground beef, June-July 2002. Public Health Rep. 2005;120(2):174-8.
107. Smith JL, Fratamico PM, Gunther NW. Extraintestinal pathogenic *Escherichia coli*. Foodborne Pathog Dis. 2007;4(2):134-63.
108. Russo TA, Johnson JR. Medical and economic impact of extraintestinal infections due to *Escherichia coli*: focus on an increasingly important endemic problem. Microbes Infect. 2003;5(5):449-56.
109. Kaper JB, Nataro JP, Mobley HLT. Pathogenic *Escherichia coli*. Nat Rev Micro. 2004;2(2):123-40.

110. Hudault S, Guignot J, Servin A. *Escherichia coli* strains colonising the gastrointestinal tract protect germfree mice against *Salmonella typhimurium* infection. Gut. 2001;49(1):47-55.
111. Hacker J, Kaper JB. Pathogenicity islands and the evolution of microbes. Annu Rev Microbiol. 2000;54:641-79.
112. Asima Banu JSK, Ansand M. Extraintestinal Infections due to *Escherichia coli*: An Emerging Issue. 2010.
113. Hartman D. *Enterobacter aerogenes*, a Motile Organism, in a Sulfide Indole Motility Deep 2011 [updated 2011 Nov 01; cited 2015 Jan 20]. Availablefrom:http://www.microbelibrary.org/library/2-associated-figure-resource/3641-enterobacter-aerogenes-a-motile-organism-in-a-sim-deep.
114. Buxton R. Sputum–Gram-Negative Bacilli 2007 [updated 2011 Sept 27; cited 2015 Jan 20]. Available from:http://www.microbelibrary.org /index2.php?option=com_resource&controller=article&Itemid=73&article=3076.
115. Allen M. S. marcescens, *E. coli & E. aerogenes* 2010 [updated 2010 Aug 03; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/ library/2-associated-figure-resource/1502-s-marcescens-e-colie-aerogenes-enlarged-view.
116. Sturm T. Organisms grown on MacConkey Agar 2014 [updated 2014 Dec 01; cited 2015 Jan 20]. Available from: http:// www.microbelibrary.org/ index2.php?option=com_resource&controller=article&Itemid=73&article=3988.
117. Ristuccia PA, Cunha BA. Klebsiella. Infection Control. 1984;5(7):343-8.
118. Podschun R, Ullmann U. *Klebsiella spp.* as Nosocomial Pathogens: Epidemiology, Taxonomy, Typing Methods, and Pathogenicity Factors. Clin Microbiol Rev. 1998;11(4):589-603.
119. Bagley ST. Habitat association of Klebsiella species. Inf control. 1985;6(2):52-8.
120. Buxton R. Blood Agar Plates and Hemolysis Protocols 2005 [updated 2013 Jul 22; cited 2015 Jan 20]. Available from: http://www.microbe

library.org/library/laboratory-test/2885-blood-agar-plates-and-hemolysis-protocols.

121. Buxton R. Blood Agar Plates and Hemolysis: Staphylococcus and Other Catalase Positive Gram-Positive Cocci 2010 [updated 2013 Apr 10; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/index.php/ library/laboratory-test/3220-coagulase-test-protocol.
122. Buxton R. Streptococcus species Viridans group 2010 [updated 2010 Aug 02; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/ library/2-associated-figure-resource/1521-streptococcus-species-viridans-group-enlarged-view.
123. Buxton R. Enterococcus faecalis 2010 [updated 2011 March 22; cited 2015 Jan 20].Available from: http://www.microbelibrary.org/library/2-associated-figureresource/ 1534-enterococcus-faecalis-enlarged-view.
124. Shields P, Tsang AY. Mannitol Salt Agar Plates Protocols 2006 [updated 2013 Jul 22; cited 2015 Jan 20]. Available from: http:// www.microbelibrary.org/index.php/library/laboratory-test/3034-mannitol-salt-agar-plates-protocols.
125. Reynolds J. Biochemical Test Media for Lab Unknown Identification - Part 2 2002 [updated 2010 Aug 10; cited 2015 Jan 20]. Available from:http:// www.microbelibrary.org/library/laboratory-test/3007-biochemical-test-media-for-lab-unknown-identification-part-2.
126. Allen ME. MacConkey Agar Plates Protocols 2005 [updated 01 April 2013]. Available from: http://www.microbelibrary.org/index.php?option =comresource&controller=article&article=2855&Itemid=0&category_id=1.
127. Miller D, Hanley P. *Escherichia coli* 2010 [updated 2010 August 03; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/ library/2-associated-figure-resource/1481-escherichia-coli-enlarged-view.
128. Syahrurachman A, al. E. Buku Ajar Mikrobiologi Kedokteran. Edisi Revisi ed. Indonesia SPFKU, editor. Jakarta: Binarupa Aksara; 1994.
129. Tenover F, Hirschmann JV. Interpretation of Gram Stains and Other Common Microbiologic Slide Preparations 2007 [updated 2013 Jul 25; cited

2015 Jan 20]. Available from: http://www.microbelibrary.org/library/gram-stain/3046-interpretation-of-gram-stains-and-other-slide-preparations.

130. Smith AC, Hussey MA. Gram Stain Protocols 2005 [updated 2013 Jul 22; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/library/gram-stain/2886-gram-stain-protocols.
131. Reiner K. Catalase Test Protocol 2010 [updated 2013 April 01; cited 2015 Jan 20]. Available from:http://www.microbelibrary.org/index.php/submit-new-library-record /laboratory-test/3226-catalase-test-protocol.
132. Reiner K. Slide Catalase Test Results 2010 [updated 2010 Nov 01; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/library/2-associated-figure-resource/3236-slide-catalase-test-results.
133. Katz DS. Coagulase Plasma and *Staphylococcus aureus* 2010 [updated 11 Nov 2010; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/library/2-associated-figure-resource/3248-coagulase-plasma-and-*staphylococcus-aureus*.
134. Chamberlain N. Coagulase Test for *Staphylococcus Species* 2009 [updated 11 Nov 2010; cited 2015 Jan 20]. Available from:http://www.microbelibrary.org/index.php/library/laboratory-test/3207-coagulase-test-for-staphylococcus-species.
135. Lehman D. Triple Sugar Iron Agar Protocols 2005 [updated 22 July 2013; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/index2.php?option=com_resource&controller=article&Itemid=73&article=2842.
136. Lehman D. *Escherichia coli* 2010 [updated 03 Aug 2010; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/library/2-associated-figure-resource /1439-escherichia-coli-enlarged-view.
137. Lehman D. Citrobacter freundii 2010 [updated 03 Aug 2010; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/library/2-associated-figure-resource /1436-citrobacter-freundii-enlarged-view.
138. Lehman D. Proteus mirabilis 2010 [updated 01 April 2013; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/library/2-associated-figure-resource/1438-proteus-mirabilis-enlarged-view.

139. MacWilliams MP. Indole Test Protocol 2009 [updated 01 April 2013; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/index.php?option=com_resource&controller=article&article=3202&Itemid=0&category_id=19.
140. McDevitt S. Methyl Red and Voges-Proskauer Test Protocols 2009 [updated 01 April 2013; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/index.php?option=com_resource&controller=article&article=3204&Itemid=0&category_id=1.
141. MacWilliams MP. Citrate Test Protocol 2009 [updated 22 July 2013; cited 2015 Jan 20]. Available from:http://www.microbelibrary.org/component/resource/laboratory-test/3203-citrate-test-protocol.
142. Shields P. Motility Test Medium Protocol 2011 [updated 01 April 2013; cited 2015 Jan 20]. Available from:http://www.microbelibrary.org/index2.php?option=com_resource&controller=article&Itemid=73&article=3658.
143. Brink B. Urease Test Protocol 2010 [updated 01 April 2013]. Available from:http://www.microbelibrary.org/library/laboratory-test/3223-ureasetest-protocol.
144. Katz DS. The Streak Plate Protocol 2008 [updated 01 Apr 2013; cited 2015 Jan 20]. Available from: http://www.microbelibrary.org/library/laboratory-test/3160-the-streak-plate-protocol.
145. Katz DS. Coagulase Test Protocol 2010 [updated 01 Apr 2013; cited 2015 Jan 20]. Available from : http://www.microbelibrary.org/index.php/library/laboratory-test/3220-coagulase-test-protocol.
146. Santosaningsih D, Santoso S, Budayanti NS, Kuntaman K, Lestari ES, Farida H, et al. Epidemiology of *Staphylococcus aureus* Harboring the mecA or Panton-Valentine Leukocidin Genes in Hospitals in Java and Bali, Indonesia. Am J Trop Med Hyg. 2014;90(4):728-34.
147. Kaur DC, Narayan PA. Mupirocin resistance in nasal carriage of *Staphylococcus aureus* among healthcare workers of a tertiary care rural hospital. Indian J Crit Care Med. 2014;18(11):716-21.

148. Reighard A, Diekema D, Wibbenmeyer L, Ward M, Herwaldt L. *Staphylococcus aureus* nasal colonization and colonization or infection at other body sites in patients on a burn trauma unit. Infect Control Hosp Epidemiol. 2009;30(8):721-6.
149. Landrum ML, Neumann C, Cook C, Chukwuma U, Ellis MW, Hospenthal DR, et al. Epidemiology of *Staphylococcus aureus* blood and skin and soft tissue infections in the US military health system, 2005-2010. Jama. 2012;308(1):50-9.
150. Naik G, Deshpande S. A study on surgical site infections caused by *Staphylococcus aureus* with a special search for methicillin-resistant isolates. J Clin Diagn Res. 2011;5(3):502-8.
151. Farida H, Lestari ES, Iskandar, Marityaningsih NJ, Laras NW. Kualitas Penggunaan Antibiotik Di Bangsal Bedah Dan Obstetri-Ginekologi Setelah Kampanye Penggunaan Antibiotik Secara Bijak: Fakultas Kedokteran; 2012.
152. Schweizer ML, Furuno JP, Harris AD, Johnson JK, Shardell MD, McGregor JC, et al. Comparative effectiveness of nafcillin or cefazolin versus vancomycin in methicillin-susceptible *Staphylococcus aureus* bacteremia. BMC Inf Dis. 2011;11:279-279.
153. Fuke T, Abe Y, Hoshino A, Oto H, Sakai N, Murayama J, et al. [Cefazolin efficacy and antibiotic sensitivity against pathogenic bacteria in pediatric with acute upper urinary tract infection]. Kansenshogaku Zasshi. 2010;84(3):269-75.
154. Mathur P, Kapil A, Das B, Dhawan B. Prevalence of extended spectrum (beta) lactmase producing Gram negative bacteria in a tertiary care hospital. Indian J Med Res. 2002;115:153.
155. Subha A, Ananthan S. Extended spectrum beta lactamase (ESBL) mediated resistance to third generation cephalosporins among *Klebsiella pneumoniae* in Chennai. Indian J Med Microbiol. 2002;20(2):92.
156. Hartlan TE. Pengaruh Faktor Demografi Terhadap Kolonisasi Dan Pola Resistensi *Staphylococcus Aureus* Pada Siswa Sd Penelitian Di Tiga Sd Di

Kota Semarang [Undergraduate Thesis]. Semarang: Diponegoro University; 2010.

157. Setiawan DS. Faktor Risiko Kolonisasi *Enterobacteriaceae* Pada Nasofaring Dewasa [Undergraduate Thesis]. Semarang: Diponegoro University; 2010.
158. Isa RM, Lestari ES. Faktor Risiko Kolonisasi *Staphylococcus Aureus* Pada Pegulat [Undergraduate Thesis]. Semarang: Diponegoro University; 2011.

Lampiran 1. *Informed Consent* (Persetujuan Pasien)

JUDUL PENELITIAN :

KOLONISASI BAKTERI PATOGEN POTENSIAL PENYEBAB INFEKSI DAERAH OPERASI PADA KULIT PASIEN PRAOPERATIF

INSTANSI PELAKSANA : Program Studi Ilmu Pendidikan Dokter Fakultas Kedokteran Universitas Diponegoro

INFORMED CONSENT

Yth. Bapak/Ibu/Sdr : ……

Kami, Gina Dhani Wilantri dan Mesayu Nadya Prameswari, mahasiswa Program Studi S1 Ilmu Pendidikan Dokter Fakultas Kedokteran UNDIP.Kami akan melakukan penelitian dengan judul:

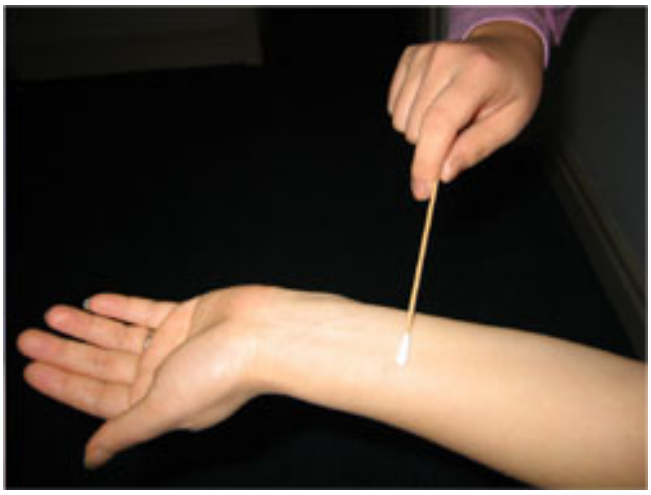
KOLONISASI BAKTERI PATOGEN POTENSIAL PENYEBAB INFEKSI DAERAH OPERASI PADA KULIT PASIEN PRAOPERATIF

Tujuan dari penelitian ini adalah untuk mendapatkan data prevalensi dan faktor risiko dari bakteri yang menempati atau hidup di kulit pada pasien yang akan menjalani operasi. Manfaat penelitian ini adalah :dengan mengetahui dan memahami prevalensi dan faktor risiko kolonisasi pada kulit pasien yang akan menjalani operasi, maka dapat dilakukan upaya pencegahan dan pengobatan terhadap infeksi daerah operasi yang umumnya diawali dengan pertumbuhan bakteri pada kulit.

Sebenarnya pemeriksaan bakteri pada kulit tidak rutin dilakukan pada setiap pasien yang akan menjalani operasi dan hanya dilakukan untuk tujuan penelitian. Tetapi pemeriksaan ini perlu dilakukan dalam penelitian ini, karena dalam penelitian ini, kami berharap bisa memperoleh data prevalensi dan faktor faktor risiko dari bakteri yang menempati atau hidup di kulit. Sehingga jika seorang pasien akan menjalani operasi dan dapat diidentifikasi faktor risiko tertentu pada pasien tersebut yang menyebabkan bakteri menempati atau hidup di kulit, maka dokter dapat memperkirakan risiko infeksi daerah operasi yang akan terjadi dan dapat melakukan penanganan yang lebih tepat untuk menghindari hal tersebut.

Anda terpilih sebagai peserta penelitian ini. Apabila Bapak/Ibu/Saudara setuju sebagai peserta penelitian maka ada beberapa hal yang akan Bapak/Ibu/Saudara alami, yaitu:

- Diminta berbagai informasi mengenai data demografik, hiegiene dan kesehatan personal yang akan dilakukan dengan wawancara dan pengukuran berat badan dan tinggi badan secara langsung dalam waktu tidak lebih dari 10 menit.
- Dilakukan pemeriksaan fisik untuk mengetahui adanya lesi kulit di bagian tubuh.
- Dilakukan apus kulit pada bagian yang akan dioperasi pada 1-2 jam sebelum operasi.Apus kulit menggunakan alat swab yang lembut ke kulit Bapak/Ibu/Saudara. Prosedur ini hanya memerlukan waktu 2-3 menit, dan mungkin akan sedikit geli tapi tidak menyakitkan karena kami hanya melakukan usapan pada kulit bapak/ibu. Ini adalah ilustrasi gambar tentang cara pengambilan apus kulit.



Penelitian ini tidak akan menimbulkan efek yang merugikan pada Bapak/Ibu/Saudara. Dalam penelitian ini tidak ada intervensi dalam bentuk apapun terhadap Bapak/ Ibu/ Saudara sehingga tidak ada tindakan terapi/ tidak dilakukan intervensi manajemen terapi apapun. Setiap data pemeriksaan dan penelitian dijamin kerahasiaannya. Sebagai peserta penelitian keikutsertaan ini bersifat sukarela dan tidak dikenakan biaya penelitian. Oleh karena itu Bapak/ Ibu/ Saudara berhak menolak berpartisipasi atau berhenti berpartisipasi kapan saja atas alasan apapun tanpa adanya konsekwensi. Apabila ada informasi yang belum jelas atau pertanyaan mengenai penelitian ini Bapak/Ibu/Saudara bisa menghubungi kami (Gina/Mesayu), mahasiswa Program Studi S1 Ilmu Pendidikan Dokter FK UNDIP (HP 081390396658/081641070777)

Terima kasih atas kerjasama Bapak/ Ibu/ Saudara.

KOLONISASI BAKTERI PATOGEN POTENSIAL PENYEBAB INFEKSI DAERAH OPERASI PADA KULIT PASIEN PRAOPERATIF

Setelah mendengar dan memahami penjelasan tentang penelitian, dengan ini saya menyatakan:

Nama :..……

Usia :……..

Jenis kelamin : Laki-laki / Perempuan*

Menyatakan: **SETUJU / TIDAK SETUJU***

Untuk ikut sebagai peserta penelitian.

Semarang, …….2015

Peneliti Saya yang membuat pernyataan

( ) ( )

Alamat :

Saksi

( )

Alamat :

*coret salah satu

Contact Person: Gina Dhani Wilantri (081390396658)

Mesayu Nadya P. (085641070777)

Lampiran 2. Kuesioner

KOLONISASI KULIT PASIEN PRAOPERATIF

Demografi		
1.	Nama	
2.	Usia	Tahun
3.	Jenis kelamin	Laki laki / Perempuan *
4.	Tempat, tanggal lahir	
5.	Tinggi badan / Berat badan	cm/ kg
6.	Alamat	
7.	Tanggal Masuk Rumah Sakit	
8.	Tanggal Operasi	
9.	Jenis Operasi	
10.	Perokok aktif	0. Tidak 1. Ya 2. Tidak tahu
11.	Riwayat perawatan di rumah sakit 3 bulan terakhir	0. Tidak 1. Ada : sakit....., ...hari
12.	Minum antibiotik saat ini	0. Tidak 1. Ya 2. Tidak tahu
13.	Minum antibiotik 1 minggu terakhir	0. Tidak 1. Ya 2. Tidak tahu
14.	Penyakit diabetes melitus	0. Tidak 1. Ya 2. Tidak tahu
15.	Tanggal Masuk Rumah Sakit	
16.	Penyakit kulit di daerah operasi	0. Tidak 1. Ya 2. Tidak tahu
17.	Penyakit kulit di luar daerah operasi	0. Tidak 1. Ya 2. Tidak tahu

*) coret yang tidak perlu

Lampiran 7. Hasil analisis (*output* analisis menggunakan program statistik)

Frequency Table

Jenis Kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Perempuan	20	52.6	52.6	52.6
	Laki laki	18	47.4	47.4	100.0
	Total	38	100.0	100.0	

Status Gizi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	27	71.1	71.1	71.1
	Underweight	9	23.7	23.7	94.7
	Overweight	2	5.3	5.3	100.0
	Total	38	100.0	100.0	

Diabetes Melitus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak ada	38	100.0	100.0	100.0

Riwayat Penggunaan Antibiotik 3 Hari Terakhir

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak Ada	37	97.4	97.4	97.4
	Ada	1	2.6	2.6	100.0
	Total	38	100.0	100.0	

Jenis Kelamin * Bakteri Patogen penyebab IDO

Crosstab

			Bakteri Patogen penyebab IDO		
			Negatif	Positif	Total
Jenis Kelamin	Perempuan	Count	1	19	20
		Expected Count	.5	19.5	20.0
		% of Total	2.6%	50.0%	52.6%
	Laki laki	Count	0	18	18
		Expected Count	.5	17.5	18.0

	% of Total	.0%	47.4%	47.4%
Total	Count	1	37	38
	Expected Count	1.0	37.0	38.0
	% of Total	2.6%	97.4%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.924[a]	1	.336		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	1.308	1	.253		
Fisher's Exact Test				1.000	.526
Linear-by-Linear Association	.900	1	.343		
N of Valid Cases[b]	38				

a. 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,47.

b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
For cohort Bakteri Patogen penyebab IDO = Positif	.950	.859	1.050

Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
For cohort Bakteri Patogen penyebab IDO = Positif	.950	.859	1.050
N of Valid Cases	38		

Diabetes Melitus * Bakteri Patogen penyebab IDO

Chi-Square Tests

	Value
Pearson Chi-Square	.[a]
N of Valid Cases	38

a. No statistics are computed because Diabetes Melitus is a constant.

Crosstab

			Bakteri Patogen penyebab IDO		
			Negatif	Positif	Total
Diabetes Melitus	Tidak ada	Count	1	37	38
		Expected Count	1.0	37.0	38.0
		% of Total	2.6%	97.4%	100.0%
Total		Count	1	37	38

Risk Estimate

	Value
Odds Ratio for Diabetes Melitus (Tidak ada / .)	.[a]

a. No statistics are computed because Diabetes Melitus is a constant.

	Expected Count	1.0	37.0	38.0
	% of Total	2.6%	97.4%	100.0%

status gizi * Bakteri Patogen penyebab IDO

Crosstab

			Bakteri Patogen penyebab IDO		Total
			Negatif	Positif	
status gizi	Normal	Count	1	35	36
		Expected Count	.9	35.1	36.0
		% of Total	2.6%	92.1%	94.7%
	Overweight	Count	0	2	2
		Expected Count	.1	1.9	2.0

	% of Total	.0%	5.3%	5.3%
Total	Count	1	37	38
	Expected Count	1.0	37.0	38.0
	% of Total	2.6%	97.4%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.057[a]	1	.811		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.110	1	.741		
Fisher's Exact Test				1.000	.947
Linear-by-Linear Association	.056	1	.814		
N of Valid Cases[b]	38				

a. 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,05.

b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper

For cohort Bakteri Patogen penyebab IDO = Positif	.972	.920	1.027
N of Valid Cases	38		

Riwayat Penggunaan Antibiotik 3 Hari Terakhir * Bakteri Patogen penyebab IDO

Crosstab

			Bakteri Patogen penyebab IDO		
			Negatif	Positif	Total
Riwayat Penggunaan Antibiotik 3 Hari Terakhir	Tidak Ada	Count	1	36	37
		Expected Count	1.0	36.0	37.0
		% of Total	2.6%	94.7%	97.4%
	Ada	Count	0	1	1
		Expected Count	.0	1.0	1.0
		% of Total	.0%	2.6%	2.6%
Total		Count	1	37	38
		Expected Count	1.0	37.0	38.0
		% of Total	2.6%	97.4%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.028[a]	1	.868		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.054	1	.816		
Fisher's Exact Test				1.000	.974
Linear-by-Linear Association	.027	1	.869		
N of Valid Cases[b]	38				

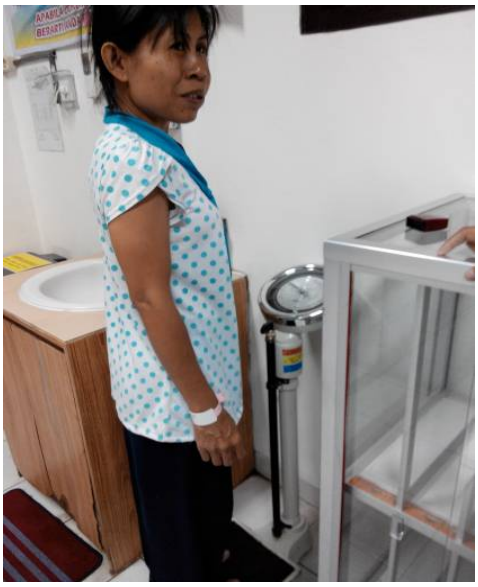
a. 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,03.

b. Computed only for a 2x2 table

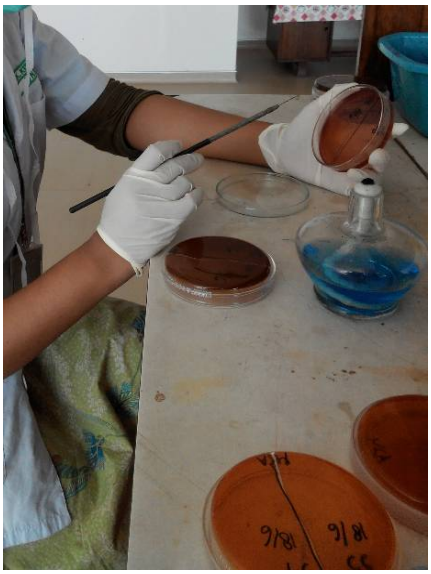
Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
For cohort Bakteri Patogen penyebab IDO = Positif	.973	.922	1.027
N of Valid Cases	38		

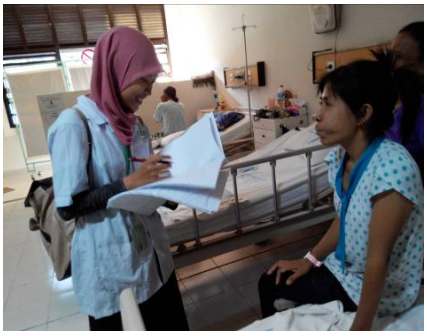
Lampiran 8. Dokumentasi penelitian.



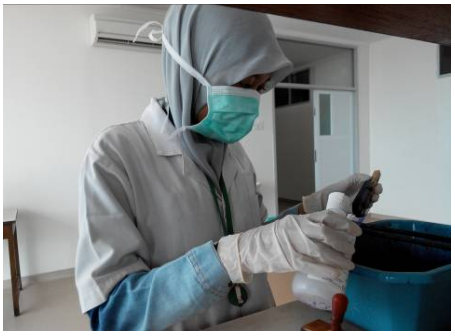
Pengukuran tinggi dan berat badan



Isolasi primer



Wawancara dengan subjek



Pengecatan gram

Identifikasi dengan mikroskop

Lampiran 9. Biodata mahasiswa.

Identitas

Nama	: Mesayu Nadya Prameswari
NIM	: 22010111130123
Tempat/ Tanggal Lahir	: Semarang, 19 September 1993
Jenis Kelamin	: Perempuan
Alamat	: Jl. Kenconowungu Tengah V no 38, Semarang

Riwayat Pendidikan Formal

1.	SD	: SD Negeri Anjasmoro	Lulus tahun: 2005
2.	SMP	: SMP Negeri 1 Semarang	Lulus tahun: 2008
3.	SMA	: SMA Negeri 3 Semarang	Lulus tahun: 2011

Keanggotaan organisasi

1.	MALADICA FK UNDIP	Tahun 2012 s/d sekarang