

9 Referenzen

1. Ammon, A., P. Gastmeier, K. Weist, M. H. Kramer, L. R. Petersen (2001): Empfehlung zur Untersuchung von Ausbrüchen nosokomialer Infektionen (Erläuterungen des Robert Koch- Institutes). RKI Heft. 21: 1-43.
2. Barber, M. (1961): Methicillin-resistant staphylococci. J. Clin. Pathol. 14: 385-393.
3. Brückler, J., S. Schwarz, F. Untermann, (1994): Staphylokokken-Infektionen und Enterotoxine. In: Blobel and Schießer, eds. Handbuch der bakteriellen Infektionen bei Tieren. Jena/ Stuttgart: Gustav Fischer Verlag,
4. Burkhardt, F. (1992): Mikrobiologische Diagnostik. Burkhardt and Bauerfeind. Stuttgart; New York, Thieme.
5. Cookson, B. D., I. Phillips (1988): Epidemic methicillin-resistant *Staphylococcus aureus*. J. Antimicrob. Chemother. 21 Suppl. C.: 57-65.
6. Foster, T. j., (2002): *Staphylococcus aureus*. In: M. Sussmann, eds. Molecular Medical Microbiology. Newcastle upon Tyne: Academic Press, 839-888
7. Gastmeier, P., H. Rüden (2001): Epidemiologie und Surveillance nosokomialer Infektionen. Krankenhaus- und Praxishygiene. A. Kramer, P. Heeg and K. Botzenhart. Greifswald / Tübingen, Urban und Fischer. 1: 92-96.
8. Gilbert, P., D. G. Allison, P. A. Lambert, (2001): Antibiotics that act on nucleic acids and protein biosynthesis. In: M. Sussman, eds. Molecular Medical Microbiology. San Diego: Academic press, 603-604
9. Hahn, H. (1991): Staphylokokken. Medizinische Mikrobiologie. F. Hahn, Klein. Berlin, Heidelberg, New York, Springer - Verlag.
10. Kayser, F. H. (1998): Ursprung und Evolution der Antibiotikaresistenz. Verein Forschung für Leben. Zürich. Nr. 51.
11. Kirby, W. M. M. (1944): Extraction of a highly potent penicillin inactivator from penicillin resistant staphylococci. Science. 99: 452-453.
12. Kleespies, C., T. Kaiser, P. Sawicki (2003): Evidenzbasierte Diagnostik und Therapie bei Disease Management Programmen. Glossar der Begriffe und Methoden evidenzbasierter Medizin. Köln: 25.
13. Kloos, U., W. E. Schleifer (1986): Bergey's Manual of Systematic Bacteriology. Genus IV. *Staphylococcus* Rosenbach 1884. P. H. A. Sneath, Mair, N. S., Sharpe, M. E., Holt, J. G. Baltimore, Williams and Wilkins. 2: 1013-1035.
14. Kreienbrock, L., S. Schach (1995): biometrie: Epidemiologische Methoden. Stuttgart Jena, Gustav Fischer Verlag: 151-152.
15. Kresken, M., B. Wiedemann (1987): [Resistance pattern of clinical bacterial isolates. Results of a super-regional multicenter study of the Resistance Study Committee of the Paul Ehrlich Society of Chemotherapy]. Infection. 15 Suppl. 4: S150-157.

- 16. Lambert, P. A., D. G. Allison, P. Gilbert, (2002):** Antibiotics that Act on the Cell Wall and Membrane. In: M. Sussmann, eds. Molecular Medical Microbiology. Newcastle upon Tyne: Academic Press, 591-593
- 17. Marples, R. R., J. F. Richardson, F. E. Newton (1990):** Staphylococci as part of the normal flora of human skin. Soc. Appl. Bacteriol. Symp. Ser. 19: 93S-99S.
- 18. Oughton, M. T., H.L.N. Dick, B.M. Willey, S. Brown, A. McGeer, B.Kreiswirth, D.E. Low (2002):** Methicillin-resistant *Staphylococcus aureus* as a cause of Infections in Domestic animals: Evidence for a New Humanotic Disease. Poster.
- 19. Peters, G., K. Becker (1996):** Epidemiology, control and treatment of methicillin-resistant *Staphylococcus aureus*. Drugs. 52 Suppl 2: 50-54.
- 20. Piepersberg, W., (2001):** Endogenous Antimicrobial Molecules: An Ecological Perspective. In: M. Sussmann, eds. Molecular Medical Microbiology. Academic Press, 578
- 21. Rüden, H. (1995):** Nosokomiale Infektionen in Deutschland: Erfassung und Prävention (NIDEP-Studie). Baden-Baden. Teil 1: Prävalenz nosokomialer Infektionen, Qualitätssicherung in der Krankenhaushygiene.
- 22. Simon, C., S. Stille (1993):** Antibiotika Therapie in Klinik und Praxis. Stuttgart- New York, Schattauer. 8.
- 23. Sokal, R. R., C. D. Michener (1958):** A statistical method for evaluating systematic relationships. University of Kansas Science Bulletin. 38: 1409-1438.
- 24. Walther, B., L. H. Wieler, B. Kohn, L. Brunnberg, A. Lübke-Becker (2005):** Monitoring Methicillin-resistant *Staphylococcus aureus* (MRSA) in a Small Animal Hospital. Poster. DGHM Tagung Göttingen.
- 25. Andersen, B. M., R. Lindemann, K. Bergh, B. I. Nesheim, G. Syversen, N. Solheim, F. Laugerud (2002):** Spread of methicillin-resistant *Staphylococcus aureus* in a neonatal intensive unit associated with understaffing, overcrowding and mixing of patients. J. Hosp. Infect. 50: 18-24.
- 26. Bello, C., A. Qahtani (2005):** Pitfalls in the routine diagnosis of *Staphylococcus aureus*. African Journal of Biotechnology. 4: 83-86.
- 27. Bootsma, H. J., H. van Dijk, P. Vauterin, J. Verhoef, F. R. Mooi (2000):** Genesis of BRO beta-lactamase-producing *Moraxella catarrhalis*: evidence for transformation-mediated horizontal transfer. Mol. Microbiol. 36: 93-104.
- 28. Devine, J., R. P. Cooke, E. P. Wright (2001):** Is methicillin-resistant *Staphylococcus aureus* (MRSA) contamination of ward-based computer terminals a surrogate marker for nosocomial MRSA transmission and handwashing compliance? J. Hosp. Infect. 48: 72-75.
- 29. Devriese, L. A., J. Hommez (1975):** Epidemiology of methicillin-resistant *Staphylococcus aureus* in dairy herds. Res. Vet. Sci. 19: 23-27.
- 30. Frenay, H. M., A. E. Bunschoten, L. M. Schouls, W. J. van Leeuwen, C. M. Vandebroucke-Grauls, J. Verhoef, F. R. Mooi (1996):** Molecular typing of methicillin-resistant *Staphylococcus aureus* on the basis of protein A gene polymorphism. Eur. J. Clin. Microbiol. Infect. Dis. 15: 60-64.

- 31. Geiss, H., D. Mack, H. Seifert (2004):** Identifizierung von speziellen Resistenzmechanismen und Interpretation von Ergebnissen der Antibiotika Empfindlichkeitstestung bei grampositiven und gramnegativen Erregern. *Chemotherapie Journal*. 13: 1-16.
- 32. Hanssen, A. M., G. Kjeldsen, J. U. Sollid (2004):** Local variants of Staphylococcal cassette chromosome *mec* in sporadic methicillin-resistant *Staphylococcus aureus* and methicillin-resistant coagulase-negative Staphylococci: evidence of horizontal gene transfer? *Antimicrob. Agents Chemother.* 48: 285-296.
- 33. Hiramatsu, K., H. Hanaki, T. Ino, K. Yabuta, T. Oguri, F. C. Tenover (1997):** Methicillin-resistant *Staphylococcus aureus* clinical strain with reduced vancomycin susceptibility. *J. Antimicrob. Chemother.* 40: 135-136.
- 34. Lyon, B. R., R. Skurray (1987):** Antimicrobial resistance of *Staphylococcus aureus*: genetic basis. *Microbiol. Rev.* 51: 88-134.
- 35. Ryffel, C., F. H. Kayser, B. Berger-Bachi (1992):** Correlation between regulation of *mecA* transcription and expression of methicillin resistance in staphylococci. *Antimicrob. Agents Chemother.* 36: 25-31.
- 36. Simor, A. E., M. Ofner-Agostini, E. Bryce, K. Green, A. McGeer, M. Mulvey, S. Paton (2001):**
The evolution of methicillin-resistant *Staphylococcus aureus* in Canadian hospitals: 5 years of national surveillance. *Cmaj.* 165: 21-26.
- 37. Rankin, S., S. Roberts, K. O'Shea, D. Maloney, M. Lorenzo, C. E. Benson (2005):** Panton valentine leukocidin (PVL) toxin positive MRSA strains isolated from companion animals. *Vet. Microbiol.* 108: 145-148.
- 38. Weese, J. S., H. Dick, B. M. Willey, A. McGeer, B. N. Kreiswirth, B. Innis, D. E. Low (2006):** Suspected transmission of methicillin-resistant *Staphylococcus aureus* between domestic pets and humans in veterinary clinics and in the household. *Vet. Microbiol.* 115: 148-155.
- 39. Archambault, M., S. Weese, H. Staempfli (2002):** Why are oxacillin/methicillin-resistant *Staphylococcus aureus* important? *AHL- Newsletter.* 6: 14.
- 40. Archer, G. L., C. G. Mayhall (1983):** Comparison of epidemiological markers used in the investigation of an outbreak of methicillin-resistant *Staphylococcus aureus* infections. *J. Clin. Microbiol.* 18: 395-399.
- 41. Kumari, D. N., T. C. Haji, V. Keer, P. M. Hawkey, V. Duncanson, E. Flower (1998):**
Ventilation grilles as a potential source of methicillin-resistant *Staphylococcus aureus* causing an outbreak in an orthopaedic ward at a district general hospital. *J. Hosp. Infect.* 39: 127-133.
- 42. Manian, F. A. (2003):** Asymptomatic nasal carriage of mupirocin-resistant, methicillin-resistant *Staphylococcus aureus* (MRSA) in a pet dog associated with MRSA infection in household contacts. *Clin. Infect. Dis.* 36: e26-28.
- 43. Nichols, R. L. (2001):** Preventing surgical site infections: a surgeon's perspective. *Emerg. Infect. Dis.* 7: 220-224.
- 44. Oie, S., I. Hosokawa, A. Kamiya (2002):** Contamination of room door handles by methicillin-sensitive/methicillin-resistant *Staphylococcus aureus*. *J. Hosp. Infect.* 51: 140-143.

- 45. Prescott, J. F., W. J. Hanna, R. Reid-Smith, K. Drost (2002):** Antimicrobial drug use and resistance in dogs. Can. Vet. J. 43: 107-116.
- 46. Skov, R., R. Smyth, M. Clausen, A. R. Larsen, N. Frimodt-Møller, B. Olsson-Liljequist, G. Kahlmeter (2003):** Evaluation of a cefoxitin 30 microg disc on Iso-Sensitest agar for detection of methicillin-resistant *Staphylococcus aureus*. J. Antimicrob. Chemother. 52: 204-207.
- 47. Valle, J., S. Piriz, R. de la Fuente, S. Vadillo (1991):** Staphylococci isolated from healthy goats. Zentralbl. Veterinärmed. B. 38: 81-89.
- 48. Chongtrakool, P., T. Ito, X. X. Ma, Y. Kondo, S. Trakulsomboon, C. Tiensasitorn, M. Jamklang, T. Chavalit, J. H. Song, K. Hiramatsu (2006):** Staphylococcal cassette chromosome *mec* (SCCmec) typing of methicillin-resistant *Staphylococcus aureus* strains isolated in 11 Asian countries: a proposal for a new nomenclature for SCCmec elements. Antimicrob. Agents Chemother. 50: 1001-1012.
- 49. Diekema, D. J., M. A. Pfaller, J. Turnidge, J. Verhoef, J. Bell, A. C. Fluit, G. V. Doern, R. N. Jones (2000):** Genetic relatedness of multidrug-resistant, methicillin (oxacillin)-resistant *Staphylococcus aureus* bloodstream isolates from SENTRY Antimicrobial Resistance Surveillance Centers worldwide, 1998. Microb. Drug. Resist. 6: 213-221.
- 50. Garcia, M. L., B. Moreno, M. S. Bergdoll (1980):** Characterization of staphylococci isolated from mastitic cows in Spain. Appl. Environ. Microbiol. 39: 548-553.
- 51. Grimble, S. A., T. R. Magee, R. B. Galland (2001):** Methicillin resistant *Staphylococcus aureus* in patients undergoing major amputation. Eur. J. Vasc. Endovasc. Surg. 22: 215-218.
- 52. Hartmann, A. A. (1978):** Staphylococci of the normal human skin flora. Variety of biotypes and antibiograms without direct correlations. Arch. Dermatol. Res. 261: 295-302.
- 53. Hoover, D. G., S. R. Tatini, J. B. Maltais (1983):** Characterization of staphylococci. Appl. Environ. Microbiol. 46: 649-660.
- 54. Kernodle, D. S., R. K. Voladri, A. B. Kaiser (1998):** Beta-lactamase production diminishes the prophylactic efficacy of ampicillin and cefazolin in a guinea pig model of *Staphylococcus aureus* wound infection. J. Infect. Dis. 177: 701-706.
- 55. Rosec, J. P., J. P. Guiraud, C. Dalet, N. Richard (1997):** Enterotoxin production by staphylococci isolated from foods in France. Int. J. Food Microbiol. 35: 213-221.
- 56. Strommenger, B., C. Kehrenberg, C. Kettilitz, C. Cuny, J. Verspohl, W. Witte, S. Schwarz (2006):** Molecular characterization of methicillin-resistant *Staphylococcus aureus* strains from pet animals and their relationship to human isolates. J. Antimicrob. Chemother. 57: 461-465.
- 57. Waller, A. (2005):** The creation of a new monster: MRSA and MRSI--important emerging veterinary and zoonotic diseases. Vet. J. 169: 315-316.
- 58. Weese, J. S. (2004):** *Methicillin-resistant Staphylococcus aureus* in horses and horse personnel. Vet. Clin. North. Am. Equine. Pract. 20: 601-613.
- 59. Weese, J. S. (2005):** Methicillin-Resistant *Staphylococcus aureus*: An Emerging Pathogen in Small Animals. J. Am. Anim. Hosp. Assoc. 41: 150-157.

- 60. Weese, J. S., M. Archambault, B. M. Willey, P. Hearn, B. N. Kreiswirth, B. Said-Salim, A. McGeer, Y. Likhoshvay, J. F. Prescott, D. E. Low (2005):** Methicillin-resistant *Staphylococcus aureus* in horses and horse personnel, 2000-2002. *Emerg. Infect. Dis.* 11: 430-435.
- 61. Chambers, H. F. (1997):** Methicillin resistance in staphylococci: molecular and biochemical basis and clinical implications. *Clin. Microbiol. Rev.* 10: 781-791.
- 62. Cucarella, C., M. A. Tormo, C. Ubeda, M. P. Trotonda, M. Monzon, C. Peris, B. Amorena, I. Lasa, J. R. Penades (2004):** Role of biofilm-associated protein bap in the pathogenesis of bovine *Staphylococcus aureus*. *Infect. Immun.* 72: 2177-2185.
- 63. Hajek, V., J. Balusek, V. Horak, D. Koukalova (1991):** Characterization of coagulase-positive staphylococci isolated from free-living birds. *J. Hyg. Epidemiol. Microbiol. Immunol.* 35: 407-418.
- 64. Lilenbaum, W., E. L. Nunes, M. A. Azeredo (1998):** Prevalence and antimicrobial susceptibility of staphylococci isolated from the skin surface of clinically normal cats. *Lett. Appl. Microbiol.* 27: 224-228.
- 65. Loeffler, A., A. K. Boag, J. Sung, J. A. Lindsay, L. Guardabassi, A. Dalsgaard, H. Smith, K. B. Stevens, D. H. Lloyd (2005):** Prevalence of methicillin-resistant *Staphylococcus aureus* among staff and pets in a small animal referral hospital in the UK. *J. Antimicrob. Chemother.* 56: 692-697.
- 66. Murchan, S., M. E. Kaufmann, A. Deplano, R. de Ryck, M. Struelens, C. E. Zinn, V. Fussing, S. Salmenlinna, J. Vuopio-Varkila, N. El Solh, C. Cuny, W. Witte, P. T. Tassios, N. Legakis, W. van Leeuwen, A. van Belkum, A. Vindel, I. Laconcha, J. Garaizar, S. Haeggman, B. Olsson-Liljequist, U. Ransjo, G. Coombes, B. Cookson (2003):** Harmonization of pulsed-field gel electrophoresis protocols for epidemiological typing of strains of methicillin-resistant *Staphylococcus aureus*: a single approach developed by consensus in 10 European laboratories and its application for tracing the spread of related strains. *J. Clin. Microbiol.* 41: 1574-1585.
- 67. Musher, D. M., N. Lamm, R. O. Darouiche, E. J. Young, R. J. Hamill, G. C. Landon (1994):** The current spectrum of *Staphylococcus aureus* infection in a tertiary care hospital. *Medicine (Baltimore)*. 73: 186-208.
- 68. Porter, R., K. Subramani, A. N. Thomas, P. Chadwick (2003):** Nasal carriage of *Staphylococcus aureus* on admission to intensive care: incidence and prognostic significance. *Intensive Care Med.* 29: 655-658.
- 69. Rüden, H., P. Gastmeier, F. D. Daschner, M. Schumacher (1997):** Nosocomial and community-acquired infections in Germany. Summary of the results of the First National Prevalence Study (NIDEP). *Infection.* 25: 199-202.
- 70. Tenover, F. C., M. V. Lancaster, B. C. Hill, C. D. Steward, S. A. Stocker, G. A. Hancock, C. M. O'Hara, S. K. McAllister, N. C. Clark, K. Hiramatsu (1998):** Characterization of staphylococci with reduced susceptibilities to vancomycin and other glycopeptides. *J. Clin. Microbiol.* 36: 1020-1027.
- 71. Veeh, R. H., M. E. Shirtliff, J. R. Petik, J. A. Flood, C. C. Davis, J. L. Seymour, M. A. Hansmann, K. M. Kerr, M. E. Pasmore, J. W. Costerton (2003):** Detection of *Staphylococcus aureus* biofilm on tampons and menses components. *J. Infect. Dis.* 188: 519-530.

- 72. Vogel, U., P. Kurzai, H. Claus, A. Knaust, F. Pitten (2005):** Spa-Typisierung von Methicillin-resistenten *Staphylococcus aureus* Stämmen am Universitätsklinikum Würzburg. Der Mikrobiologe. Institut für Hygiene und Mikrobiologie, Universität Würzburg, Berufsverband der Ärzte für Mikrobiologie und Infektionsepidemiologie e.V.: 131-135.
- 73. Weese, J. S., T. DaCosta, L. Button, K. Goth, M. Ethier, K. Boehnke (2004):** Isolation of methicillin-resistant *Staphylococcus aureus* from the environment in a veterinary teaching hospital. J. Vet. Intern. Med. 18: 468-470.
- 74. Whitney, V. K. M. (1972):** Algorithm 422: minimal spanning tree [H]. Communications of the ACM archive. 15: 273 - 274.
- 75. Armand-Lefevre, L., R. Ruimy, A. Andremont (2005):** Clonal comparison of *Staphylococcus aureus* isolates from healthy pig farmers, human controls, and pigs. Emerg. Infect. Dis. 11: 711-714.
- 76. Berisio, R., F. Schluenzen, J. Harms, A. Bashan, T. Auerbach, D. Baram, A. Yonath (2003):** Structural insight into the role of the ribosomal tunnel in cellular regulation. Nat. Struct. Biol. 10: 366-370.
- 77. Brumfitt, W., J. M. Hamilton-Miller (1990):** The worldwide problem of methicillin-resistant *Staphylococcus aureus*. Drugs Exp. Clin. Res. 16: 205-214.
- 78. Engemann, J. J., Y. Carmeli, S. E. Cosgrove, V. G. Fowler, M. Z. Bronstein, S. L. Trivette, J. P. Briggs, D. J. Sexton, K. S. Kaye (2003):** Adverse clinical and economic outcomes attributable to methicillin resistance among patients with *Staphylococcus aureus* surgical site infection. Clin. Infect. Dis. 36: 592-598.
- 79. Feil, E. J., B. C. Li, D. M. Aanensen, W. P. Hanage, B. G. Spratt (2004):** eBURST: inferring patterns of evolutionary descent among clusters of related bacterial genotypes from multilocus sequence typing data. J. Bacteriol. 186: 1518-1530.
- 80. Hartmann, F. A., S. S. Trostle, A. A. Klohnen (1997):** Isolation of methicillin-resistant *Staphylococcus aureus* from a postoperative wound infection in a horse. J. Am. Vet. Med. Assoc. 211: 590-592.
- 81. Ito, T., Y. Katayama, K. Asada, N. Mori, K. Tsutsumimoto, C. Tiensasitorn, K. Hiramatsu (2001):** Structural comparison of three types of staphylococcal cassette chromosome *mec* integrated in the chromosome in methicillin-resistant *Staphylococcus aureus*. Antimicrob. Agents. Chemother. 45: 1323-1336.
- 82. Lina, G., Y. Piemont, F. Godail-Gamot, M. Bes, M. O. Peter, V. Gauduchon, F. Vandenesch, J. Etienne (1999):** Involvement of Panton-Valentine leukocidin-producing *Staphylococcus aureus* in primary skin infections and pneumonia. Clin. Infect. Dis. 29: 1128-1132.
- 83. Merlino, J., J. Watson, B. Rose, M. Beard-Pegler, T. Gottlieb, R. Bradbury, C. Harbour (2002):** Detection and expression of methicillin/oxacillin resistance in multidrug-resistant and non-multidrug-resistant *Staphylococcus aureus* in Central Sydney, Australia. J. Antimicrob. Chemother. 49: 793-801.
- 84. Seguin, J. C., R. D. Walker, J. P. Caron, W. E. Kloos, C. G. George, R. J. Hollis, R. N. Jones, M. A. Pfaller (1999):** Methicillin-resistant *Staphylococcus aureus* outbreak in a veterinary teaching hospital: potential human-to-animal transmission. J. Clin. Microbiol. 37: 1459-1463.

- 85. Shore, A., A. S. Rossney, C. T. Keane, M. C. Enright, D. C. Coleman (2005):** Seven novel variants of the staphylococcal chromosomal cassette *mec* in methicillin-resistant *Staphylococcus aureus* isolates from Ireland. *Antimicrob. Agents. Chemother.* 49: 2070-2083.
- 86. Smyth, C. J., R. Mollby, T. Wadstrom (1975):** Phenomenon of hot-cold hemolysis: chelator-induced lysis of sphingomyelinase-treated erythrocytes. *Infect. Immun.* 12: 1104-1111.
- 87. Menes, I., M. L. Garcia, B. Moreno, L. Gutierrez, J. J. Polledo (1984):** Staphylococci isolated from abscesses in slaughtered animals: characterization and epidemiological studies. *Zentralbl. Bakteriol. Mikrobiol. Hyg. [B].* 178: 551-561.
- 88. Smith, S. M., R. H. Eng, F. T. Padberg, Jr. (1996):** Survival of nosocomial pathogenic bacteria at ambient temperature. *J. Med. Microbiol.* 27: 293-302.
- 89. Steinbrecher, E., E. Sohr, A. Nassauer, F. Daschner, H. Rüden, P. Gastmeier (2000):** Die häufigsten Erreger bei Intensivpatienten mit nosokomialen Infektionen - Ergebnisse des Krankenhaus-Infektions-Surveillance-Systems (KISS). *Chemotherapie Journal.* 9: 179-183.
- 90. Hiramatsu, K. (1998):** The emergence of *Staphylococcus aureus* with reduced susceptibility to vancomycin in Japan. *Am. J. Med.* 104: 7S-10S.
- 91. Amyes, S. G. (1997):** Antibiotic resistance. Resistance mediated by inhibitor-resistant and extended-spectrum TEM and SHV beta-lactamases. *J. Med. Microbiol.* 46: 454-457.
- 92. Ito, T., Y. Katayama, K. Hiramatsu (1999):** Cloning and nucleotide sequence determination of the entire *mec* DNA of pre-methicillin-resistant *Staphylococcus aureus* N315. *Antimicrob. Agents Chemother.* 43: 1449-1458.
- 93. Katayama, Y., T. Ito, K. Hiramatsu (2000):** A new class of genetic element, staphylococcus cassette chromosome *mec*, encodes methicillin resistance in *Staphylococcus aureus*. *Antimicrob. Agents. Chemother.* 44: 1549-1555.
- 94. Lim, T. T., G. W. Coombs, W. B. Grubb (2002):** Genetic organization of *mecA* and *mecA*-regulatory genes in epidemic methicillin-resistant *Staphylococcus aureus* from Australia and England. *J. Antimicrob. Chemother.* 50: 819-824.
- 95. Montesinos, I., E. Salido, T. Delgado, M. Cuervo, A. Sierra (2002):** Epidemiologic genotyping of methicillin-resistant *Staphylococcus aureus* by pulsed-field gel electrophoresis at a university hospital and comparison with antibiotyping and protein A and coagulase gene polymorphisms. *J. Clin. Microbiol.* 40: 2119-2125.
- 96. Ng, E. Y., M. Trucks, D. C. Hooper (1994):** Quinolone resistance mediated by *norA*: physiologic characterization and relationship to *fllB*, a quinolone resistance locus on the *Staphylococcus aureus* chromosome. *Antimicrob. Agents Chemother.* 38: 1345-1355.
- 97. Ito, T., X. X. Ma, F. Takeuchi, K. Okuma, H. Yuzawa, K. Hiramatsu (2004):** Novel type V staphylococcal cassette chromosome *mec* driven by a novel cassette chromosome recombinase, *ccrC*. *Antimicrob. Agents Chemother.* 48: 2637-2651.
- 98. Manian, F. A., P. L. Meyer, J. Setzer, D. Senkel (2003):** Surgical site infections associated with methicillin-resistant *Staphylococcus aureus*: do postoperative factors play a role? *Clin. Infect. Dis.* 36: 863-868.

- 99. Oliveira, D. C., H. de Lencastre (2002):** Multiplex PCR strategy for rapid identification of structural types and variants of the *mec* element in methicillin-resistant *Staphylococcus aureus*. *Antimicrob. Agents Chemother.* 46: 2155-2161.
- 100. Sieradzki, K., R. B. Roberts, S. W. Haber, A. Tomasz (1999):** The development of vancomycin resistance in a patient with methicillin-resistant *Staphylococcus aureus* infection. *N. Engl. J. Med.* 340: 517-523.
- 101. Wakita, Y., J. Kawano, A. Shimizu, V. Hajek, E. Tomisaka, R. Yasuda, E. Matsuo (2002):** Development of a PCR test for the identification of *Staphylococcus intermedius* based on the 16S rDNA sequence. *J. Vet. Med. Sci.* 64: 603-605.
- 102. Felten, A., B. Grandry, P. H. Lagrange, I. Casin (2002):** Evaluation of three techniques for detection of low-level methicillin-resistant *Staphylococcus aureus* (MRSA): a disk diffusion method with cefoxitin and moxalactam, the Vitek 2 system, and the MRSA-screen latex agglutination test. *J. Clin. Microbiol.* 40: 2766-2771.
- 103. Hiramatsu, K. (1995):** Molecular evolution of MRSA. *Microbiol. Immunol.* 39: 531-543.
- 104. Lowy, F. D. (1998):** *Staphylococcus aureus* infections. *N. Engl. J. Med.* 339: 520-532.
- 105. Mongkolrattanothai, K., S. Boyle, M. D. Kahana, R. S. Daum (2003):** Severe *Staphylococcus aureus* infections caused by clonally related community-acquired methicillin-susceptible and methicillin-resistant isolates. *Clin. Infect. Dis.* 37: 1050-1058.
- 106. Shukla, S. K., S. V. Ramaswamy, J. Conradt, M. E. Stemper, R. Reich, K. D. Reed, E. A. Graviss (2004):** Novel polymorphisms in *mec* genes and a new *mec* complex type in methicillin-resistant *Staphylococcus aureus* isolates obtained in rural Wisconsin. *Antimicrob. Agents Chemother.* 48: 3080-3085.
- 107. Vandenesch, F., T. Naimi, M. C. Enright, G. Lina, G. R. Nimmo, H. Heffernan, N. Liassine, M. Bes, T. Greenland, M. E. Reverdy, J. Etienne (2003):** Community-acquired methicillin-resistant *Staphylococcus aureus* carrying Panton-Valentine leukocidin genes: worldwide emergence. *Emerg. Infect. Dis.* 9: 978-984.
- 108. Boyce, J. M., G. Potter-Bynoe, C. Chenevert, T. King (1997):** Environmental contamination due to methicillin-resistant *Staphylococcus aureus*: possible infection control implications. *Infect. Control Hosp. Epidemiol.* 18: 622-627.
- 109. da Costa Darini, A. L., I. C. Palazzo (2004):** Cefoxitin does not induce production of penicillin binding protein 2a in methicillin-susceptible *Staphylococcus aureus* strains. *J. Clin. Microbiol.* 42: 4412; author reply 4412-4413.
- 110. Hooper, D. C. (2002):** Fluoroquinolone resistance among Gram-positive cocci. *Lancet. Infect. Dis.* 2: 530-538.
- 111. Korting, H. C., A. Lukacs, O. Braun-Falco (1988):** [Microbial flora and odor of the healthy human skin]. *Hautarzt.* 39: 564-568.
- 112. Tenover, F. C., R. D. Arbeit, R. V. Goering, P. A. Mickelsen, B. E. Murray, D. H. Persing, B. Swaminathan (1995):** Interpreting chromosomal DNA restriction patterns produced by pulsed-field gel electrophoresis: criteria for bacterial strain typing. *J. Clin. Microbiol.* 33: 2233-2239.
- 113. Yasuda, R., J. Kawano, E. Matsuo, T. Masuda, A. Shimizu, T. Anzai, S. Hashikura (2002):** Distribution of *mecA*-harboring staphylococci in healthy mares. *J. Vet. Med. Sci.* 64: 821-827.

- 114. Deurenberg, R. H., C. Vink, G. J. Oudhuis, J. E. Mooij, C. Driessen, G. Coppens, J. Craeghs, E. De Brauwer, S. Lemmen, H. Wagenvoort, A. W. Friedrich, J. Scheres, E. E. Stobberingh (2005):** Different clonal complexes of methicillin-resistant *Staphylococcus aureus* are disseminated in the Euregio Meuse-Rhine region. *Antimicrob. Agents Chemother.* 49: 4263-4271.
- 115. Hiramatsu, K., L. Cui, M. Kuroda, T. Ito (2001):** The emergence and evolution of methicillin-resistant *Staphylococcus aureus*. *Trends. Microbiol.* 9: 486-493.
- 116. Mulvey, M. R., L. Chui, J. Ismail, L. Louie, C. Murphy, N. Chang, M. Alfa (2001):** Development of a Canadian standardized protocol for subtyping methicillin-resistant *Staphylococcus aureus* using pulsed-field gel electrophoresis. *J. Clin. Microbiol.* 39: 3481-3485.
- 117. Shimizu, A., J. Kawano, C. Yamamoto, O. Kakutani, T. Anzai, M. Kamada (1997):** Genetic analysis of equine methicillin-resistant *Staphylococcus aureus* by pulsed-field gel electrophoresis. *J. Vet. Med. Sci.* 59: 935-937.
- 118. van Duijkeren, E., A. T. Box, J. Mulder, W. J. Wannet, A. C. Fluit, D. J. Houwers (2003):** [Methicillin resistant *Staphylococcus aureus* (MRSA) infection in a dog in the Netherlands]. *Tijdschr. Diergeneeskdt.* 128: 314-315.
- 119. Enright, M. C., D. A. Robinson, G. Randle, E. J. Feil, H. Grundmann, B. G. Spratt (2002):** The evolutionary history of methicillin-resistant *Staphylococcus aureus* (MRSA). *Proc. Natl. Acad. Sci U S A.* 99: 7687-7692.
- 120. Goto, K. (1981):** [Studies on relationship between *Staphylococcus aureus* inhabiting human and staphylococcal food poisoning. 3. The outbreaks of food poisoning due to rice ball contaminated with staphylococci inhabiting human (author's transl)]. *Kansenshogaku Zasshi.* 55: 812-818.
- 121. Kolmos, H. J. (1999):** [Carriers of *Staphylococcus aureus* as a source of nosocomial infections. Epidemiological and prophylactic aspects]. *Ugeskr. Laeger.* 161: 1580-1584.
- 122. Vriens, M., H. Blok, A. Fluit, A. Troelstra, C. Van Der Werken, J. Verhoef (2002):** Costs associated with a strict policy to eradicate methicillin-resistant *Staphylococcus aureus* in a Dutch University Medical Center: a 10-year survey. *Eur. J. Clin. Microbiol. Infect. Dis.* 21: 782-786.
- 123. Walther, B., A. Lübke-Becker, L. H. Wieler (2004):** Evaluierung von Oxacillin und Cefoxitin im Agardiffusionsverfahren zur Identifizierung von MRSA in der Veterinärmedizin. Tagung der DVG-Fachgruppe Bakteriologie und Mykologie. Berlin, 9.6.-12.6.2004. Berliner und Münchener Tierärztliche Wochenschrift. 117: 454.
- 124. Baptiste, K. E., K. Williams, N. J. Williams, A. Wattret, P. D. Clegg, S. Dawson, J. E. Corkill, T. O'Neill, C. A. Hart (2005):** Methicillin-resistant staphylococci in companion animals. *Emerg. Infect. Dis.* 11: 1942-1944.
- 125. Gortel, K., K. L. Campbell, I. Kakoma, T. Whittem, D. J. Schaeffer, R. M. Weisiger (1999):** Methicillin resistance among staphylococci isolated from dogs. *Am. J. Vet. Res.* 60: 1526-1530.
- 126. Kuwahara-Arai, K., N. Kondo, S. Hori, E. Tateda-Suzuki, K. Hiramatsu (1996):** Suppression of methicillin resistance in a *mecA*-containing pre-methicillin-resistant *Staphylococcus aureus* strain is caused by the *mecl*-mediated repression of PBP 2' production. *Antimicrob. Agents Chemother.* 40: 2680-2685.

- 127. Pottumarthy, S., J. M. Schapiro, J. L. Prentice, Y. B. Houze, S. R. Swanzy, F. C. Fang, B. T. Cookson (2004):** Clinical isolates of *Staphylococcus intermedius* masquerading as methicillin-resistant *Staphylococcus aureus*. *J. Clin. Microbiol.* 42: 5881-5884.
- 128. Woolhouse, M. E., S. Gowtage-Sequeria (2005):** Host range and emerging and reemerging pathogens. *Emerg. Infect. Dis.* 11: 1842-1847.
- 129. Chang, S., D. M. Sievert, J. C. Hageman, M. L. Boulton, F. C. Tenover, F. P. Downes, S. Shah, J. T. Rudrik, G. R. Pupp, W. J. Brown, D. Cardo, S. K. Fridkin (2003):** Infection with vancomycin-resistant *Staphylococcus aureus* containing the vanA resistance gene. *N. Engl. J. Med.* 348: 1342-1347.
- 130. Fux, C. A., S. Wilson, P. Stoodley (2004):** Detachment Characteristics and Oxacillin Resistance of *Staphylococcus aureus* Biofilm Emboli in an In Vitro Catheter Infection Model. *J. Bacteriol.* 186: 4486-4491.
- 131. Synge, B. A., F. M. Scott, D. C. MacDougall (1985):** Dermatitis of the legs of sheep associated with *Staphylococcus aureus*. *Vet. Rec.* 116: 459-460.
- 132. Pinho, M. G., H. de Lencastre, A. Tomasz (2001):** An acquired and a native penicillin-binding protein cooperate in building the cell wall of drug-resistant staphylococci. *Proc. Natl. Acad. Sci. U S A.* 98: 10886-10891.
- 133. Peters, G. (1991):** [Infections caused by staphylococci. The human as a source of infection for *S. aureus* and coagulase negative staphylococci]. *Fortschr. Med.* 109: 437-440.
- 134. Holden, M. T., E. J. Feil, J. A. Lindsay, S. J. Peacock, N. P. Day, M. C. Enright, T. J. Foster, C. E. Moore, L. Hurst, R. Atkin, A. Barron, N. Bason, S. D. Bentley, C. Chillingworth, T. Chillingworth, C. Churcher, L. Clark, C. Corton, A. Cronin, J. Doggett, L. Dowd, T. Feltwell, Z. Hance, B. Harris, H. Hauser, S. Holroyd, K. Jagels, K. D. James, N. Lennard, A. Line, R. Mayes, S. Moule, K. Mungall, D. Ormond, M. A. Quail, E. Rabinowitz, K. Rutherford, M. Sanders, S. Sharp, M. Simmonds, K. Stevens, S. Whitehead, B. G. Barrell, B. G. Spratt, J. Parkhill (2004):** Complete genomes of two clinical *Staphylococcus aureus* strains: evidence for the rapid evolution of virulence and drug resistance. *Proc. Natl. Acad. Sci. USA.* 101: 9786-9791.
- 135. Prevention, C. f. D. C. a. (2002):** *Staphylococcus aureus* resistant to vancomycin--United States, 2002. *MMWR Morb. Mortal Wkly. Rep.* 51: 565-567.
- 136. Robert-Koch-Institut (1998):** Mehrfachresistenzphänotypen bei MRSA aus nosokomialen Infektionen in Deutschland. *Epidemiologisches Bulletin.*
- 137. Friedrich, A. W., K. G. Friedrich, B. Walther, A. Lübke-Becker, L. H. Wieler (2004):** Methicillin resistant *Staphylococcus aureus* infections in a modern animal hospital - professional infection management. *Praktischer Tierarzt:* 742-747.
- 138. Busscher, J. F., E. van Duijkeren, M. M. Sloet van Oldruitenborgh-Oosterbaan (2006):** The prevalence of methicillin-resistant staphylococci in healthy horses in the Netherlands. *Vet. Microbiol.*: 131-136.
- 139. Plaut, M., E. M. Zimmerman, R. Goldstein (1996):** Health Hazards to Humans Associated with Domesticated Pets. *Annual Review of Public Health.* Vol. 17.
- 140. Walther, B., B. Kohn, L. Brunnberg, L. H. Wieler, A. Lübke-Becker (2003):** Wound infection in a dog caused by MRSA in Germany. *International Journal of Medical Microbiology,,* 55. Kongreß der Deutschen Gesellschaft für Hygiene und Mikrobiologie, Dresden (28.09.-01.10.2003): 385.

- 141. Zhang, H. Z., C. J. Hackbart, K. M. Chansky, H. F. Chambers (2001):** A proteolytic transmembrane signaling pathway and resistance to beta-lactams in staphylococci. *Science*. 291: 1962-1965.
- 142. National Committee for Clinical Laboratory Standards, N. (2002):** Performance standards for antimicrobial disk and dilution susceptibility tests for bacteria isolated from animals. NCCLS document M31-A2. T. C. 2002. Wayne (Pa). NCCLS document M31-A2: 16-17.
- 143. Robert-Koch-Institut (2000):** Erkrankungen durch *Staphylokokkus aureus* unter Berücksichtigung der MRSA. *Epidemiologisches Bulletin*: 62-65.