

BÖLÜM 30

EL HİJYENİ VE ÖNEMİ

Can Hüseyin HEKİMOĞLU¹

30.1. Tarihçe

30.1.1. Alexander Gordon (1752-1799)

İskoçya'nın Aberdeen şehrinde 1789 ve 1792 yıllarında puerperal ateş salgınları yaşanmıştı. Alexander Gordon puerperal ateşi olan 77 hastaya bakmış, bunların 25'i yaklaşık 5. gün civarında ölmüştü. Bu durumdan etkilenen Gordon 1795 yılında "Arbedeen'in Puerperal Ateş Epidemisi Üzerine İnceleme"sini yayınladı. Gordon hastalığın bulaşıcılığında cerrahların parmaklarına da işaret ediyordu. Hastalığın önlenmesinde hastaların kıyafetleri ve yatak örtülerinin yakılmasını ve sağlık çalışanlarının kıyafetlerinin fumigasyona tabi tutulmasını öneriyordu. Gordon kendisini "Enfeksiyonun çok sayıda kadına taşınmasının bir aracı olduğumu belirtmek benim için kabul edilemez bir beyan" olarak eleştiriyordu. Puerperal ateş 1800'lü yıllarda Avrupa'da yaygın bir anne ölümü nedeni olmaya devam etti.

30.1.2. Antoine-Germain Labarraque (1777-1850)

Fransız kimyager ve eczacı Labarraque, dezenfektan ve koku giderici olarak yaygın kullanılan bir sodyum hipoklorit çözeltisi olan "Eau de Labarraque"ı formüle etmiş ve kullanımını başlatmıştır.

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Kaynaklar

- Bouvet M. Les grands pharmaciens: Labarraque (1777-1850). *Revue d'histoire de la pharmacie.* 1950;38(128):97-107.
- 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. *Morb Mortal Wkly Rep.* 2002; 51,1-44.
- Carter KC. Semmelweis and his predecessors. *Med Hist.* 1981;25(1): 57-72.
- Cassini A, Colzani E, Pini A, Mangen MJ, Plass D, McDonald SA, et al. Impact of infectious diseases on population health using incidence-based disability-adjusted life years (DALYs): results from the Burden of Communicable Diseases in Europe study, European Union and European Economic Area countries, 2009 to 2013. *Euro Surveill.* 2018;23(16):17-00454.
- Cassini A, Plachouras D, Eckmanns T, Abu Sin M, Blank HP, Ducomble T, et al. Burden of Six Healthcare-Associated Infections on European Population Health: Estimating Incidence-Based Disability-Adjusted Life Years through a Population Prevalence-Based Modelling Study. *PLoS Med.* 2016;13(10):e1002150.
- Cromer AL, Latham SC, Bryant, KG, Hutsell S, Gansauer L, Bendyk HA, et al. Monitoring and feedback of hand hygiene compliance and the impact on facility-acquired methicillin-resistant *Staphylococcus aureus*. *Am J Infect Control.* 2008;36(9):672-7.
- Doebbeling BN, Stanley GL, Sheetz CT, Pfaller MA, Houston AK, Annis L, et al. Comparative efficacy of alternative hand-washing agents in reducing nosocomial infections in intensive care units. *N Engl J Med.* 1992;327(2):88-93.
- Dunn PM. Dr Alexander Gordon (1752-99) and contagious puerperal fever. *Arch Dis Child Fetal Neonatal Ed.* 1998;78(3):232-3.
- Garner JS, Favero MS. CDC guideline for handwashing and hospital environmental control, 1985. *Infect Control.* 1986;7:231-43.
- Grayson ML, Jarvie LJ, Martin R, Johnson PD, Jodoin ME, McMullan, C, et al. Significant reductions in methicillin-resistant *Staphylococcus aureus* bacteraemia and clinical isolates associated with a multisite, hand hygiene culture-change program and subsequent successful statewide roll-out. *Med J Aust.* 2008;188(11):633-40.
- Grayson ML, Russo PL, Cruickshank M, Bear JL, Gee CA, Hughes CF, et al. Outcomes from the first 2 years of the Australian National Hand Hygiene Initiative. *Med J Aust.* 2011;195(10): 615-9.
- Guidelines on Core Components of Infection Prevention and Control Programmes at the National and Acute Health Care Facility Level. Geneva: World Health Organization; 2016.
- Haley RW, Culver DH, White JW, Morgan WM, Emori TG, Munn VP, et al. The efficacy of infection surveillance and control programs in preventing nosocomial infections in US hospitals. *Am J Epidemiol.* 1985;121(2):182-205.
- Haley RW, Morgan WM, Culver DH, White JW, Emori TG, Mosser J, et al. Update from the SENIC project. Hospital infection control: recent progress and opportunities under prospective payment. *Am J Infect Control.* 1985;13(3):97-108.
- Harrington G, Watson K, Bailey M, Land G, Borrell S, Houston L, et al. Reduction in hospitalwide incidence of infection or colonization with methicillin-resistant *Staphylococcus aureus* with use of antimicrobial hand-hygiene gel and statistical process control charts. *Infect Control Hosp Epidemiol.* 2007;28(7):837-44.
- Hekimoğlu CH. Türkiye Verileri: Sağlık Bakımıyla İlişkili İnfeksiyonlarda Neredeyiz? INFLINE. VI. Ulusal Sağlık Bakımıyla İlişkili İnfeksiyonlar Simpozyumu, 16 Kasım 2019, İstanbul.
- Hekimoğlu CH, Alp Meşe E. The adjusted standardized infection ratio and cumulative attributable difference for central line-associated bloodstream infections and catheter-associated urinary tract infections in 2017, in Turkey. *J Immunol Clin Microbiol.* 2020;5(1):41-9.
- Hekimoğlu CH, Şahan S. El Hijyeni Gözlemeek de mi Bildirsek, Gözlemesek de mi Bildirsek? *Mediterr J Infect Microb Antimicrob.* 2018;8(Suppl 1):36.

- Hekimoğlu CH, Batır E. Cerrahi Alan Enfeksiyonu Sürveyansı. T.C. Sağlık Bakanlığı, Halk Sağlığı Genel Müdürlüğü, Bulaşıcı Hastalıklar Dairesi Başkanlığı. Ankara, 2018. h
- Herud T, Nilsen, RM, Svendheim K, Harthug S. Association between use of hand hygiene products and rates of health care-associated infections in a large university hospital in Norway. *Am J Infect Control.* 2009;37(4):311-7.
- Holmes OW. The Contagiousness of Puerperal Fever. *The New England Quarterly Journal of Medicine and Surgery.* 1943;1:503-21
- Hospital Infection Control Practices Advisory Committee (HICPAC). Recommendations for preventing the spread of vancomycin resistance. *Infect Control Hosp Epidemiol.* 1995;16:105-13.
- Johnson PD, Martin R, Burrell LJ, Grabsch EA, Kirsu SW, O'Keeffe J, et al. Efficacy of an alcohol/chlorhexidine hand hygiene program in a hospital with high rates of nosocomial methicillin-resistant *Staphylococcus aureus* (MRSA) infection. *Med J Aust.* 2005;183(10):509-14.
- Kaier K, Hagist C, Frank U, Conrad, A, Meyer E. Two time-series analyses of the impact of antibiotic consumption and alcohol-based hand disinfection on the incidences of nosocomial methicillin-resistant *Staphylococcus aureus* infection and *Clostridium difficile* infection. *Infect Control Hosp Epidemiol.* 2009;30(4):346-53.
- Karabay O, Sencan I, Sahin I, Alpteker H, Ozcan A, Oksuz S. Compliance and efficacy of hand rubbing during in-hospital practice. *Med Princ Pract.* 2005;14(5):313-17.
- Karabey S, Ay P, Derbentli S, Nakipoglu Y, Esen F. Handwashing frequencies in an intensive care unit. *J Hosp Infect.* 2002;50(1):36-41.
- Kuzu N, Ozer F, Aydemir S, Yalcin AN, Zencir M. Compliance with hand hygiene and glove use in a university-affiliated hospital. *Infect Control Hosp Epidemiol.* 2005;26(3):312-15.
- Lane HJ, Blum N, Fee, E. Oliver Wendell Holmes (1809-1894) and Ignaz Philipp Semmelweis (1818-1865): preventing the transmission of puerperal fever. *Am J Public Health.* 2010;100(6): 1008-9.
- Larson EL, Early E, Cloonan P, Sugrue S, Parides M. An organizational climate intervention associated with increased handwashing and decreased nosocomial infections. *Behav Med.* 2000; 26(1):14-22.
- Lister J. Effects of the antiseptic system of treatment upon the salubrity of a surgical hospital. *Lancet.* 1870;1:40-2.
- Loudon I. Ignaz Phillip Semmelweis' studies of death in childbirth. *J R Soc Med.* 2013;106(11): 461-3.
- Makay O, İçöz, G, Yılmaz A, Kolcu F. Handwashing habit of intensive care workers. *Ulus Travma Acil Cerrahi Derg.* 2008;14(2):149-53.
- Mathur P. Hand hygiene: back to the basics of infection control. *Indian J Med Res.* 2011;134(5), 611-20.
- Mortimer EA, Wolinsky E, Gonzaga AJ, Remmelkamp CH. Role of airborne transmission in Staphylococcal infections. *BMJ.* 1966;1:319-22.
- Myers RL. Sodium Hypochlorite. pp:260-262. In: Myers RL; 100 Most Important Chemical Compounds - A Reference Guide. 2007, 1st ed. ABC-CLIO.
- Nargiz Koşucu S, Baltacı Göktaş S, Yıldız, T. Sağlık personelinin el hijyenini uyum oranı. *Clinical and Experimental Health Sciences.* 2015;5(2):105-8.
- Nguyen KV, Nguyen PT, Jones, SL. Effectiveness of an alcohol-based hand hygiene programme in reducing nosocomial infections in the Urology Ward of Binh Dan Hospital, Vietnam. *Trop Med Int Health.* 2008;13(10):1297-302.
- Noakes TD, Borresen J, Hew-Butler T, Lambert MI, Jordaan E. Semmelweis and the aetiology of puerperal sepsis 160 years on: an historical review. *Epidemiol Infect.* 2008;136(1):1-9.
- Pessoa-Silva CL, Hugonnet S, Pfister R, Touveneau S, Dhahan S, Posfay-Barbe K, et al. Reduction of health care associated infection risk in neonates by successful hand hygiene promotion. *Pediatrics.* 2007;120(2):e382-90.

- Pittet D, Hugonnet S, Harbarth S, Mourouga P, Sauvan V, Touveneau S, et al. Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. *Infection Control Programme*. Lancet, 2000;356(9238):1307-12.
- Pratt RJ, Pellowe C, Liveday HP, Robinson N, Smith GW, Barrett S. The EPIC project: developing national evidence-based guidelines for preventing healthcare associated infections. *J Hosp Infect*. 2001;47(Suppl A):3-82.
- Rosenthal VD, Guzman S, Safdar N. Reduction in nosocomial infection with improved hand hygiene in intensive care units of a tertiary care hospital in Argentina. *Am J Infect Control*. 2005; 33(7):392-7.
- Sacar S, Turgut H, Kaleli I, Cevahir N, Asan A, Sacar M, et al. Poor hospital infection control practice in hand hygiene, glove utilization, and usage of tourniquets. *Am J Infect Control*. 2006; 34(9):606-9.
- Semmelweis I. The Etiology, Concept and Prophylaxis of Childbed Fever. Madison, Wisconsin, USA: The University of Wisconsin Press; 1983, pp:1-263.
- Steere AC, Mallison GF. Handwashing practices for the prevention of nosocomial infections. *Ann Intern Med*. 1975;83:683-90.
- Stone SP. Hand hygiene: the case for evidence-based education. *J R Soc Med*. 2001;94:278-81.
- Swoboda SM, Earsing K, Strauss K, Lane S, Lipsett PA. Electronic monitoring and voice prompts improve hand hygiene and decrease nosocomial infections in an intermediate care unit. *Crit Care Med*. 2004;32(2):358-63.
- Tekin AN. El Yıkama ve Hastane Enfeksiyonlarının Önlenimi. *Türkiye Klinikleri*. 2010;3(1);40-7.
- Thoms H. Gordon of Aberdeen. *Am J Obstet Gynecol*. 1928;15:229-33.
- Trick WE, Vernon MO, Welbel SF, Demarais P, Hayden MK, Weinstein, RA. Chicago Antimicrobial Resistance Project. Multicenter intervention program to increase adherence to hand hygiene recommendations and glove use and to reduce the incidence of antimicrobial resistance. *Infect Control Hosp Epidemiol*. 2007;28(1):42-9.
- Türk Hastane İnfeksiyonları ve Kontrolü Derneği El Hijyeni Kılavuzu Çalışma Grubu. El Hijyeni Kılavuzu. *Hastane İnfeksiyonları Dergisi* 2008;12,Ek 1.
- Ulusal Sağlık Hizmeti İlişkili Enfeksiyonlar Sürveyans Ağrı Etken Dağılım ve Antibiyotik Direnç Özeti Raporu 2017. Halk Sağlığı Genel Müdürlüğü. Ankara, Temmuz 2018.
- Ulusal Sağlık Hizmeti İlişkili Enfeksiyonlar Sürveyans Ağrı Etken Dağılım ve Antibiyotik Direnç Özeti Raporu 2018. Halk Sağlığı Genel Müdürlüğü. Ankara, Temmuz 2019.
- Won SP, Chou HC, Hsieh WS, Chen CY, Huang SM, Tsou KI, et al. Handwashing program for the prevention of nosocomial infections in a neonatal intensive care unit. *Infect Control Hosp Epidemiol*. 2004;25(9):742-6.
- World Health Organization & WHO Patient Safety. (2009) . WHO guidelines on hand hygiene in health care: a summary. World Health Organization.
- World Health Organization (WHO). WHO Guidelines on Hand Hygiene in Health Care. First Global Patient Safety Challenge Clean Care is Safer Care. World Alliance for Patient Safety. Geneva, WHO Press; 2009.
- World Health Organization (WHO). Report on the burden of endemic health care-associated infection worldwide. Geneva, WHO; 2011.
- World Health Organization (WHO). Implementation manual to prevent and control the spread of carbapenem-resistant organisms at the national and health care facility level: interim practical manual supporting implementation of the Guidelines for the prevention and control of carbapenem-resistant Enterobacteriaceae, *Acinetobacter baumannii* and *Pseudomonas aeruginosa* in health care facilities. World Health Organization; 2019.
- Zerr DM, Alpress AL, Heath J, Bornemann R, Bennett E. Decreasing hospital-associated rotavirus infection: a multidisciplinary hand hygiene campaign in a children's hospital. *Pediatr Infect Dis J*. 2005;24(5),397-403.