**Online References**

31. Kenyon C, Buyze J, Spiteri G, et al. Population-level antimicrobial consumption is associated with decreased antimicrobial susceptibility in Neisseria gonorrhoeae in 24 European countries: an ecological analysis. The Journal of infectious diseases. 2019;[Epub ahead of print]. Epub Apr 8.

32. Kenyon C. Prevalence of macrolide resistance in Treponema pallidum is associated with macrolide consumption. Journal of Medical Microbiology. 2018;Feb;68(2):119-123. doi: 10.1099/jmm.0.000885. Epub 2018 Dec 6.

33. Krieger N. Epidemiology and the web of causation: has anyone seen the spider? Soc Sci Med. 1994;39(7):887-903. Epub 1994/10/01.

34. Aral SO, Over M, Manhart L, et al. Sexually Transmitted Infections. In: Jamison DT, Mosley WH, editors. Disease control priorities in developing countries: health policy responses to epidemiological change. 2. Washington (DC): World Bank; 2006. p. 653-89.

35. Aral SO, J. N.Wasserheit. Health Care Seeking and Health Service Delivery. In: K. K. Holmes PFS, P.-A. Mardh, S. M. Lemon, W. E., Stamm PP, and J. N. Wasserheit,, editors. Sex Transm Dis. New York: McGraw

Hill.1999.

36. Unemo M, Workowski K. Dual antimicrobial therapy for gonorrhoea: what is the role of azithromycin? The Lancet Infectious Diseases. 2018;18(5):486-8.

37. Beaute J, Cowan S, Hiltunen-Back E, et al. Travel-associated gonorrhoea in four Nordic countries, 2008 to 2013. Euro Surveill. 2017;22(20). Epub 2017/05/26.

38. Grad YH, Kirkcaldy RD, Trees D, et al. Genomic epidemiology of Neisseria gonorrhoeae with reduced susceptibility to cefixime in the USA: a retrospective observational study. Lancet Infect Dis. 2014;14(3):220-6.

39. Kirkcaldy RD, Zaidi A, Hook EW, et al. Neisseria gonorrhoeae Antimicrobial Resistance Among Men Who Have Sex With Men and Men Who Have Sex Exclusively With Women: The Gonococcal Isolate Surveillance Project, 2005-2010. Annals of Internal Medicine. 2013;158(5).

40. Town K, Harris S, Sanchez-Buso L, et al. Genomic and Phenotypic Variability in Neisseria gonorrhoeae Antimicrobial Susceptibility, England. Emerg Infect Dis. 2020;26(3):505-15. Epub 2020/02/25.

41. Hocking J. Screening for chlamydia: does it work, results from accept. Sexually Transmitted Infections. 2015;91:A3-A.

42. van den Broek IVF, van Bergen JEAM, Brouwers EEHG, et al. Effectiveness of yearly, register based screening for chlamydia in the Netherlands: controlled trial with randomised stepped wedge implementation. Bmj-Brit Med J. 2012;344.

43. Datta SD, Torrone E, Kruszon-Moran D, et al. Chlamydia trachomatis Trends in the United States Among Persons 14 to 39 Years of Age, 1999-2008. Sex Transm Dis. 2012;39(2):92-6.

44. Sonnenberg P, Clifton S, Beddows S, et al. Prevalence, risk factors, and uptake of interventions for sexually transmitted infections in Britain: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal). Lancet. 2013;382(9907):1795-806.

45. Kenyon CR, De Baetselier I, Crucitti T. Does gonorrhoea screening intensity play a role in the early selection of antimicrobial resistance in men who have sex with men (MSM)? A comparative study of Belgium and the United Kingdom. F1000Research. 2018;7.

46. Van Dijck C, Laumen J, Zlotorzynska M, et al. Association between STI screening intensity in men who have sex with men and gonococcal susceptibility in 21 States in the USA: an ecological study. Sexually Transmitted Infections. 2020.

47. Kenyon CR. Association between intensity of STI screening and development of antimicrobial resistance in N. gonorrhoeae in 12 cities in the USA: An ecological study. F1000Res. 2018;7:1237. Epub 2019/01/11.

48. Olsen GA. Consumption of antibiotics in Greenland, 1964-70. IV. Changes in the sensitivity of N. gonorrhoeae to antibiotics. Br J Vener Dis. 1973;49(1):33-41. Epub 1973/02/01.

49. McNamara LA, MacNeil JR, Cohn AC, et al. Mass chemoprophylaxis for control of outbreaks of meningococcal disease. Lancet Infectious Diseases. 2018;18(9):E272-E81.

50. Malhotra-Kumar S, Lammens C, Coenen S, et al. Effect of azithromycin and clarithromycin therapy on pharyngeal carriage of macrolide-resistant streptococci in healthy volunteers: a randomised, double-blind, placebo-controlled study. The Lancet. 2007;369(9560):482-90.

51. Kenyon C. Toward a Set of Criteria to Decide Which STIs to Screen for in PrEP Cohorts. Front Public Health. 2019;7:154. Epub 2019/06/30.

52. Tedijanto C, Olesen SW, Grad YH, et al. Estimating the proportion of bystander selection for antibiotic resistance among potentially pathogenic bacterial flora. Proc Natl Acad Sci U S A. 2018;115(51):E11988-E95. Epub 2018/12/19.

53. World Health Organization. Global health sector strategy on sexually transmitted infections 2016–2021. Towards ending STIs. WHO: Geneva. WHO/RHR/16.09, 2016.

54. Kenyon C. How actively should we screen for chlamydia and gonorrhoea in MSM and other high-ST-prevalence populations as we enter the era of increasingly untreatable infections? A viewpoint. J Med Microbiol. 2018;8:9.

55. Lewis DA. The role of core groups in the emergence and dissemination of antimicrobial-resistant N gonorrhoeae. Sex Transm Infect. 2013;89 Suppl 4:iv47-51.

56. Kenyon C, Buyze J, Wi T. Antimicrobial consumption and susceptibility of Neisseria gonorrhoeae: a global ecological analysis. Frontiers in medicine. 2018;5:329.

57. Wilson JMG, Jungner G. Principles and practice of screening for disease. Geneva: World Health Organization, 1968.