

Epidemiology of Clostridium difficile infections in the Netherlands and Europe: implications for surveillance and control

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List of publications

van Dorp SM, Hensgens MPM, Dekkers OM, Demeulemeester A, Buiting A, Bloembergen P et al. Spatial clustering and livestock exposure as risk factor for community-acquired Clostridium difficile infection. Clin Microbiol Infect. 2018; Epub Aug 1.

van Dorp SM, de Greeff SC, Harmanus C, Sanders IMJG, Dekkers OM, Knetsch CW, Kampinga GA, Notermans DW, Kuijper EJ. Ribotype 078 Clostridium difficile infection incidence in Dutch hospitals is not associated with provincial pig farming: Results from a national sentinel surveillance, 2009-2015. PLoS One. 2017 Dec 29;12(12):e0189183.

Crobach MJT, Voor In 't Holt AF, Knetsch CW, van Dorp SM, Bras W, Harmanus C, Kuijper EJ, Vos MC. An outbreak of Clostridium difficile infections due to new PCR ribotype 826: epidemiologic and microbiologic analyses. Clin Microbiol Infect. 2017 Aug 19. pii: S1198-743X(17)30460-3.

van Dorp SM, Smajlović E, Knetsch CW, Notermans DW, de Greeff SC, Kuijper EJ. Clinical and microbiological characteristics of Clostridium difficile infection among hospitalized children in the Netherlands; a six-year surveillance. Clin Infect Dis. 2017 Jan 15;64(2):192-198.

van Dorp SM, Kinross P, Gastmeier P, Behnke M, Kola A, Delmeé M, et al. Standardised surveillance of Clostridium difficile infection in European acute care hospitals: a pilot study, 2013. Euro Surveill. 2016;21(29).

Terveer EM, van Beurden YH, van Dorp SM, Keller JJ, Kuijper EJ. Is the Lower Gastrointestinal Route Really Preferred Over the Upper Gastrointestinal Route for Fecal Microbiota Transfer? J Clin Gastroenterol. 2016.

Bouwknegt M, van Dorp SM, Kuijper E. Comment on: Burden of Clostridium difficile infection in the United States. N Engl J Med. 2015 Jun 11;372(24):2368.

Pituch H, Obuch-Woszczatyński P, Lachowicz D, Wultańska D, Karpiński P, Młynarczyk G, van Dorp SM, Kuijper EJ; Polish Clostridium difficile Study Group. Hospital-based Clostridium difficile infection surveillance reveals high proportions of PCR ribotypes 027 and 176 in different areas of Poland, 2011 to 2013. Euro Surveill. 2015;20(38).

Knetsch CW, Connor TR, Mutreja A, van Dorp SM, Sanders IM, Browne HP et al. Whole genome sequencing reveals potential spread of Clostridium difficile between humans and farm animals in the Netherlands, 2002 to 2011. Euro Surveill. 2014 Nov 13;19(45):20954.

About the author

Sofie van Dorp was born in Overveen, the Netherlands on August 9, 1985. She completed her secondary school (gymnasium) education at the Kennemer Lyceum in Overveen in 2003. She studied Medicine at the Free University of Amsterdam from 2003-2010. In 2008, she did a 3-month research internship at the Anahuac University in Mexico City analysing data from a Social and Health Assessment survey among adolescents in Mexico City. She completed her training as a medical doctor with internships at the department of internal medicine and neurology in Paramaribo, and a public health clinic located in the Sipaliwini district of Surinam. Afterwards, she started working at the Rijnland Hospital in Leiderdorp at the department of internal medicine and followed a 4-month training at the IC unit. In 2012, she started her first research project on CDI as part of ECDIS-Net under the supervision of prof. E.J. Kuijper, medical microbiologist. During her PhD-research period, she expanded her work in ECDIS-Net and coordinated activities of the national reference laboratory for C. difficile in the Netherlands in cooperation with the National Institute for Public Health and the Environment (RIVM). To improve her research competencies, she followed several trainings at the department of Clinical Epidemiology at the LUMC. She enjoyed international collaboration with C. difficile researchers from all over Europe and other parts of the world, and presented her work at national and international conferences. Furthermore, she supported research projects on C. difficile and highly resistant microorganisms in nursing homes. In 2017, she worked at the department of clinical geriatrics at the Slotervaart Hospital in Amsterdam and started her training as a clinical geriatrician. She is married to Sebastiaan van Denderen and mother of two sons.

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