

# Guidelines

## For Returning to School and Work Following an E. Coli (STEC) Outbreak at Mánagarður Preschool

• When children can return to school and adults can return to work



**Directorate of Health** Chief Epidemiologist for Iceland

These guidelines aim to prevent further outbreaks of STEC infection in the community.

#### 1. Children who have not been diagnosed with STEC

- Children who <u>have not been tested</u> for STEC **BUT** have had diarrhea or loose stools after October 17th **OR** have diarrhea (or get diarrhea in the next 2 weeks) should **not attend** kindergarten **AND** should submit a stool sample for PCR testing<sup>a</sup>). If the sample is positive (signs of infection are found), refer to section 2 below.
- Completely asymptomatic<sup>b)</sup> children who have not been diagnosed with STEC **can attend** the preschool. Handwashing and general hygiene must be strictly observed, especially around meals, toilet visits, and diaper changes.

#### 2. Children and adults who have been diagnosed with STEC

Those who have been diagnosed with STEC should **not** go to school or work until the following conditions are met:

- Diarrhea and other signs of the infection have ceased, and stools are normal (formed stools) for at least 2 consecutive days.
- After 2 days without symptoms, a stool sample must be submitted for a PCR test. Two days after that a second sample should be submitted.
- Both samples undergo PCR analysis (takes one day) and a positive sample is then cultured (takes 3 days).
- Both samples need to indicate that the individual is not infectious.
- If a test is positive (including culture) the individual should stay at home and submit new samples in 2 weeks. If those samples are negative, it is safe to return to school or work.
- Research shows that positive tests from most individuals become negative in 3-4 weeks from the event. Few tests remain positive longer than that.

- **3.** Adult **employees of the preschool** and **adult household members of the children**, who became ill or were diagnosed with STEC, and who work in food handling or the health service in patient care should **submit 2 stool samples** for PCR testing and receive negative results before returning to work.
- 4. Other household members of the children (children and adults) do not need to submit a stool sample, but they should be symptom-free from gastroenteritis for at least 2 days before returning to school or work.
- a) Faecal samples: See Instructions on how to take a stool sample
- **b)** Asymptomatic: No diarrhea, no looser stools than usual, and no increase in stool frequency.

#### Summary of test results

- Positive PCR and positive culture = Live bacteria, there is a risk of infection.
- Positive PCR and negative culture = Dead (inactive) bacteria, low risk of infection.
- Negative PCR = Negative sample = Bacteria not found, low risk of infection.

### The Chief Epidemiologist

#### Sources:

- 1. <u>GuidanceShiga toxin-producing Escherichia coli: public health management\_</u>UK Health Security Agency
- 2. <u>E. coli enteritis (including EHEC infection and HUS) handbook for healthcare professionals</u> Norwegian Institute of Public Health

### Selected references:

- Dabke G and others. 'Duration of shedding of Verocytotoxin-producing *Escherichia coli* in children and risk of transmission in childcare facilities in England.' Epidemiology and Infection 2014: volume 142, issue 2, pages 327 to 334
- 2. Desai M and others. 'Factors associated with prolonged *Escherichia coli* O157 infection in a school outbreak.' Public Health 2013: volume 127, issue 6, pages 582 to 585
- 3. Launders N and others. 'Disease severity of Shiga toxin-producing *E. coli* O157 and factors influencing the development of typical hemolytic uraemic syndrome: a retrospective cohort study, 2009 to 2012.' BMJ Open 2016. doi:10.1136/bmjopen-2015009933
- MacDonald E and others. 'Implications of screening and childcare exclusion policies for children with Shiga toxin-producing *Escherichia coli* infections: lessons learned from an outbreak in a daycare center, Norway, 2012.' BMC Infectious Diseases 2014: volume 14, page 673

- Matussek A and others. 'Shiga toxin-producing *Escherichia coli* in the diarrheal stool of Swedish children: evaluation of polymerase chain reaction screening and duration of Shiga toxin shedding.' Journal of Pediatric Infectious Diseases Society 2016: volume 5, issue 2, pages 147 to 151
- 6. Sharp JCM, RW, Coia JE, Curnow J, Synge BA. '*Escherichia coli* O157 infection in Scotland: an epidemiological overview.' PHLS Microbiology Digest 1995: Volume 12: pages 134 to 140
- 7. Snedeker KG, S.D., Locking ME, Prescott RJ. 'Primary and secondary cases in *Escherichia coli* 0157 outbreaks: a statistical analysis.' BMC Infectious Diseases 2009: 9
- Tourdjman M and others. 'Duration of shedding and secondary household transmission of Shiga toxin-producing *Escherichia coli* O26 during an outbreak in a childcare center.' Oregon, October to December 2010. Journal of Pediatric Infectious Diseases Society 2012: volume 1, issue 4, pages 329 to 332
- 9. World Health Organization (WHO). E. coli fact sheet. October 2016 (cited 1 February 2017)

Guidelines updated on 12.11.2024