



Surveillance report.

General bacterial and protozoal outbreaks of infectious intestinal disease reported to HPS in 2017



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ObSurv is the surveillance system established in 1996 for all general outbreaks of Infectious Intestinal Disease (IID) in Scotland. For the purpose of ObSurv an outbreak is defined as an incident in which two or more linked cases experience the same illness or when the observed number of cases unaccountably exceeds the expected number. The system seeks information on general outbreaks, defined as outbreaks affecting members of more than one household or residents of an institution.

Bacterial outbreaks

During 2017, three general outbreaks of shiga-toxigenic *Escherichia coli* (STEC) were reported; these were due to three different serogroups one each of O157, O145 and O26. This is comparable to the number of STEC outbreaks seen in previous years, with an average of five outbreaks per year over the previous five years (2012-2016).

In two of the outbreaks the main mode of transmission was considered to be foodborne, but in neither was a specific food vehicle identified, in the third the mode of transmission was contact with the environment.

There were seven general outbreaks of *Salmonella* identified in 2017, which is higher than the average number of three outbreaks reported over the past five years. The outbreaks in 2017 were of a mixture of serogroups, with three of *S. Enteritidis* and one each of *S. Saint Paul*, *S. Chester*, *S. Infantis* and *S. Oranienberg*.

Two of the outbreaks of *S. Enteritidis* occurred as part of wider European outbreaks associated with the consumption of eggs/poultry products and the cases reported here (Table 1) are the 2017 cases in Scotland (https://ecdc.europa.eu/sites/portal/files/documents/12-12-2017-RRR-UPDATE-4-Salmonella-Enteritidis_0.pdf and <https://ecdc.europa.eu/sites/portal/files/documents/rapid-risk-assessment-multi-country-outbreak-Salmonella-Enteritidis.pdf>).

The third outbreak of *S. Enteritidis* was part of a wider UK outbreak associated with the handling of frozen feeder mice for reptiles. The outbreak was a continuation of an existing outbreak, the cases reported here (Table 1) are the 2017 cases in Scotland. Advice on reducing the risk of *Salmonella* associated with reptiles is available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/377731/Salmonella_in_reptiles_factsheet_2.pdf.

Although *Campylobacter* is the most common bacterial cause of infectious intestinal disease no general outbreaks were identified in 2017, highlighting that most cases are apparently sporadic, and is similar to the trend seen in recent years with one *Campylobacter* outbreak in each of 2012 and 2014, and none in 2016, 2015 or 2013.

Table 1: General outbreaks of Infectious Intestinal Disease reported to HPS during the 2017, of bacterial, protozoal and hepatitis A origin and food borne norovirus.

Organism	Confirmed, Suspected, Nil return	Location	Main mode/s of spread	Cases ill	Cases positive	Suspect vehicle	Evidence for suspicion
<i>E. coli</i> O145	C	Community	FB	6	6	N/K	N/A
<i>E. coli</i> O26	C	Community	FB	2	2	N/K	N/A
<i>E. coli</i> O157	C	Other	E	5	5	N/A	N/A
<i>Salmonella</i> Enteritidis	C	Community	FB	3	3	Eggs	D
<i>Salmonella</i> Enteritidis	C	Community	FB	10	10	Eggs	D
<i>Salmonella</i> Enteritidis	C	Community	Other	4	4	N/A	N/A
<i>Salmonella</i> Saint Paul	C	School etc	P to P	15	14	N/A	N/A
<i>Salmonella</i> Chester	C	Community	FB	5	5	N/K	N/A
<i>Salmonella</i> Infantis	C	Community	FB	11	11	N/A	N/A
<i>Salmonella</i> Oranienberg	C	Residential institution	P to P	8	8	N/A	N/A
<i>Cryptosporidium</i>	C	School etc	P to P	3	3	N/A	N/A
<i>Cryptosporidium</i>	C	Other	Water	4	4	N/A	N/A
Hepatitis A	C	Shop/Retailer	FB	92	91	Bakery products	D,
Hepatitis A	C	Community	P to P	13	13	N/A	N/A
NV	S	Restaurants	FB	5	0	Oysters	D

Modes of transmission: FB = Foodborne, P to P = Person to Person, E = Environmental, W = water, Multi excl FB = multiple modes without a foodborne element, Multi incl FB = multiple modes including a foodborne element.

Evidence for suspicion: D = descriptive, M = microbiological, E = epidemiological.

N/K = not known, N/A = not applicable.

Protozoal outbreaks

Two general outbreaks of *Cryptosporidium* were reported in 2017, comparable to the five year average of three per year. The mode of transmission in one was considered waterborne and the other was due to person to person transmission.

No general outbreaks of *Giardia* were reported in 2017. General outbreaks of *Giardia* are relatively unusual in Scotland, with only two general *Giardia* outbreaks reported in the previous ten years, one each in 2009 and 2014.

Toxin outbreaks

There were no outbreaks of Scombrototoxin reported in 2017, this is the same as the previous three years with the last general outbreak of Scombrototoxin reported in Scotland in 2013.

Hepatitis A

Two general outbreaks of hepatitis A were reported in 2017. One of these was a foodborne outbreak linked to bakery products.

The second outbreak were the cases identified in Scotland which were part of a larger outbreak of three particular strains of hepatitis A in Europe transmitted by person to person contact - in particular among men who have sex with men (MSM) (https://ecdc.europa.eu/sites/portal/files/documents/RRA%20hep%20A%20outbreak%20EU%20EEA%20in%20MSM%20third%20update%2028%20June%202017_0.pdf).

Foodborne norovirus outbreaks

The majority of outbreaks of norovirus are due to person to person transmission, in particular in semi-closed environments such as hospitals, care homes and schools. During 2017 only one general foodborne outbreak of suspected norovirus was reported in which the consumption of oysters was the suspected source.

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