

25 July 2006  
Volume 40 No. 2006/29  
ISSN 1746-6695

## Contents

### CURRENT NOTES

- *Q fever in Forth Valley meat processing plant*
  - *Decontamination – contracts with the independent healthcare sector*
  - *Chemical disinfection agents used in endoscopy suites*
  - *Reusable pen injection devices – needlestick risk*
  - *BPSU marks 20 years of active paediatric surveillance*
- pages 149 & 152

### SURVEILLANCE REPORT

*Gastro-intestinal and zoonotic infections*

pages 150 - 151

### NOTIFIABLE TABLES

to 14/07/2006

page 152

Correspondence to:  
The Editor,  
*HPS Weekly Report*  
HPS,  
Clifton House, Clifton Place  
Glasgow, G3 7LN  
Scotland

T 0141-300 1100  
F 0141-300 1172

E [wreditor@hps.scot.nhs.uk](mailto:wreditor@hps.scot.nhs.uk)  
<http://www.ewr.hps.scot.nhs.uk>

Printed in the UK  
HPS is a division of the NHS  
National Services Scotland  
Registered as a newspaper at  
the Post Office © HPS 2006



## CURRENT NOTES

### Q fever in Forth Valley meat processing plant

**2901** On 9 July the Public Health Department of NHS Forth Valley became aware of an increase in a flu-like illness in people who worked at a meat processing company in Bridge of Allan. NHS Forth Valley together with Health Protection Scotland, HSE, FSA and Stirling Council's Environmental Health team have been investigating this. Blood tests have now confirmed that the illness is Q fever and, as of the outbreak control team meeting on 24 July, there have been 24 confirmed cases.

Q fever is a fairly rare infection caused by an organism called *Coxiella burnetii*. This organism lives in infected farm animals such as sheep, cattle and goats as well as wild animals and ticks. Humans may catch the infection from breathing in dust contaminated with faeces, urine or the afterbirth of infected livestock or from drinking unpasteurised milk.

Usually the illness occurs two or three weeks after exposure (range 9-40 days) and is typically a self limiting influenza-like illness with:

- Fever (high temperature)
- Headache
- Muscle pains
- Fatigue
- Dry cough (some people may develop pneumonia)

It is extremely rare for the infection to be passed from person to person.

As a general rule, full recovery occurs even without treatment but if symptoms are serious or prolonged or come back after recovery then specific antibiotics are used to treat the infection.

While we would not expect there to be any cases in people who do not work at the plant, there is a small theoretical risk of contracting Q fever by air-borne spread within a half mile radius of the plant. Control measures have been put in place and investigations continue.

### Decontamination – contracts with the independent healthcare sector

**40/2902** On 18 July the Scottish Executive Health Department issued a further letter on the subject of decontamination. The purpose of this letter was to alert NHS boards to the need to include in contracts with the independent healthcare sector for the surgical treatment of NHS patients, a clause on decontamination of reusable surgical instruments and other medical devices to protect patients from the risks of infection.

The letter (HDL(2006)45) should be read as an addendum to HDL(2005)41 and can be accessed at [http://www.show.scot.nhs.uk/sehd/mels/HDL2006\\_45.pdf](http://www.show.scot.nhs.uk/sehd/mels/HDL2006_45.pdf).

### Chemical disinfection agents used in endoscopy suites

**40/2903** On 21 July the Health and Safety Executive published a research report looking at alternatives to glutaraldehyde for the disinfection of endoscopes, and highlighting their benefits and limitations. The work was commissioned because of the historically high number of cases of occupational asthma caused by glutaraldehyde.

The report presents the control approaches for disinfecting agents based on HSE's COSHH Essentials. While the report and the work it describes were funded by the HSE, its contents, including any opinions and/or conclusions expressed, are those of the author alone and do not necessarily reflect HSE policy. Research Report 445 *An evaluation of chemical disinfecting agents used in endoscopy suites in the NHS* can be accessed at <http://www.hse.gov.uk/research/rrhtm/rr445.htm>.

### Reusable pen injection devices – needlestick risk

**40/2904** On 11 July Scottish Healthcare Supplies issued Safety Action Notice SAN(SC)06/29 indicating that healthcare workers remain at risk of sustaining needlestick injuries when removing needles from reusable pen injection devices.

Current notes continue on page 152

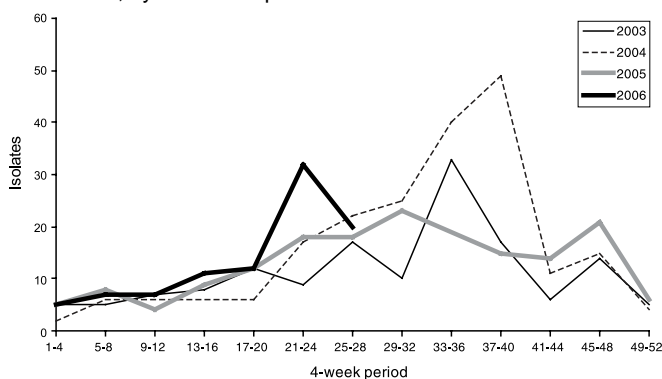
## Gastro-intestinal and zoonotic infections

Prepared by: Mary Locking, Alison Smith-Palmer, Lynda Browning and Susan Brownlie

**Incidence of *E.coli* O157, *Campylobacter* and *Salmonella* reported to HPS: first half of 2006*****E.coli* O157 and other serogroups**

From 2004 to 2005, laboratory-reported *E.coli* O157 infection fell by 18% (209 to 172 cases). During the first 28 weeks of 2006 a total of 95 laboratory reports of *E.coli* O157 were received at HPS, an increase of 28% compared to 74 cases in the same period last year (Figure 1). During weeks 1-28 in 2005, case numbers were higher than in 2004, but the year end total for 2005 was the lowest since 2003.

FIGURE 1: Laboratory isolates of *E.coli* O157 reported to HPS, 2003-2006, by four-week period



Phage types (PT) of *E.coli* O157 isolates are reported to HPS by the Scottish *E.coli* O157 Reference Laboratory (SERL). PT21/28 accounted for the highest proportion of all isolates to date in 2006 (40%). This represents a decrease compared to 57% with PT21/28 at week 28 last year. Although PT21/28 has been the predominant type in Scotland since 1998, the proportion of isolates each year with PT21/28 peaked in 2002 (65%) and has decreased each subsequent year, reaching 44% in 2005.

An RDNC phage type, where the phages react but do not conform to a known pattern, was the next most common in 2006, reported in 23 cases to week 28 (24%), of which 18 have been identified with sorbitol-fermenting verotoxigenic *E.coli* O157 (SF-VTEC O157). Prior to 2006, only two cases of SF-VTEC O157 were identified in Scotland. Detailed epidemiological investigation of the recent cases is still in progress.

Phage Type 8 accounted for 12% of isolates to week 28 compared to 7% in the same period of 2005. The proportion of isolates with PT8 increased over the last three years, from 6% in 2003 to 23% in 2005. PT2 accounted for only 2% of isolates to week 28, compared to 16% during weeks 1-28 in 2005. PT14 was identified in 7% of isolates this year compared to 1% of isolates to week 28 last year.

In weeks 1-28 of 2006, two confirmed and four suspected outbreaks of *E.coli* O157 infection have been identified at HPS, involving a total of 35 cases of laboratory confirmed infection. Seven outbreaks were identified in weeks 1 to 28 of 2005, involving 18 laboratory confirmed cases. Two of the outbreaks this year involved children attending two unconnected nurseries, and their family contacts. Some of the cases in further outbreak were associated with a butcher's shop.

Isolates of other serogroups of *E.coli* are also reported to HPS. During the first 28 weeks of 2006 a total of 23 non-O157 isolates

were reported, compared to 46 in the same period last year. Eight (35%) non-O157 isolates in 2006 to date were identified by SERL as verotoxigenic. This compares to five in the same period last year. No outbreaks of non-O157 *E.coli* have been identified so far this year, compared to one confirmed and two suspected in the same period last year.

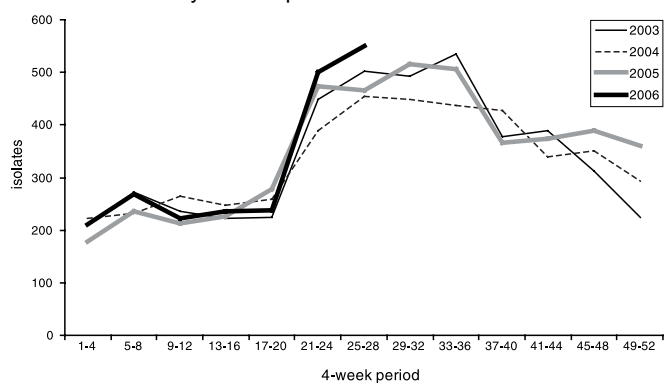
***Campylobacter***

During the first 28 weeks of this year, 2224 isolates of *Campylobacter* have been reported to HPS, an increase of 154 isolates (7.4%) on the same period in 2005, during which time there were 2070 isolates. The incidence to date in 2006, is also greater than for the corresponding periods in both 2004 and 2003 when there were 2067 and 2115 isolates respectively, but is lower than in 2002 when there were 2519 isolates reported during the first 28 weeks of the year.

The incidence of *Campylobacter* infection in Scotland peaked in 2000 at 6482 isolates and then declined every year until 2004 when there were 4365 isolates, a decline of 33% on the peak. The incidence increased by 5% in 2005 to 4581 isolates.

Despite the number of laboratory reports of *Campylobacter* received each year, general outbreaks are uncommon, with most cases being sporadic. To date in 2006 no general outbreaks of *Campylobacter* have been reported to ObSurv (the surveillance system for all general outbreaks of infectious intestinal disease in Scotland). Four general outbreaks of *Campylobacter* were reported during 2005, one in the first quarter, one in the third quarter and two in the fourth quarter. No general outbreaks of *Campylobacter* were reported in 2004, 2003 or 2002 and two in 2001.

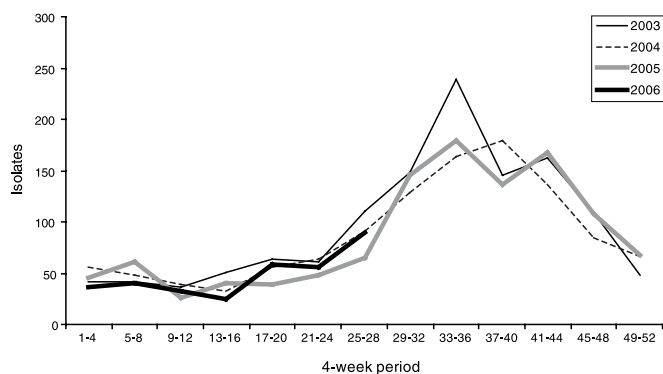
FIGURE 2: Laboratory isolates of *Campylobacter* reported to HPS 2003-2006 by 4 week period

***Salmonella***

During the first 28 weeks of 2006, 336 cases of *Salmonella* were reported to HPS, a slight increase on the 325 reports received during the corresponding period in 2005 (Table 3).

The incidence of *S. Typhimurium* decreased by 24% - most of which was due to a 40% decline in reports of DT104 (although figures were high at the start of 2005 due to an outbreak of this phage type). Reports of other serotypes of *Salmonella* (not *S. Enteritidis* or *S. Typhimurium*) increased (144 reports compared to 122 in the corresponding period of 2005). Much of this increase was due to reports of *S. Ajitoba* (11 reports compared to 0 in the previous year) and *S. Montevideo* (10 reports compared to 2 in the corresponding period of 2005). An increase in the number of cases of both of these serotypes was also observed in England

FIGURE 3: Laboratory isolates of *Salmonella* reported to HPS 2003-2006, by 4 week period



and Wales. HPS and HPA are continuing epidemiological and microbiological investigations into this increase.

### Animal *Salmonella*

During the first 28 weeks of 2006, 271 reports of *Salmonella* isolates of animal origin were reported to HPS, an increase of 24% on the corresponding period in 2005 (Table 5). *S. Dublin* continues to be the commonest serotype reported from cattle although the numbers have decreased – 57 reports compared to 63 in the same period in 2005. Reports of *S. Typhimurium* DT104 from cattle decreased in the first half of 2005 (16 compared to 23 in 2005). Reports of other phage types of *S. Typhimurium* from animal sources increased (124 compared to 36 in 2005) due to an increase in reports of phage types 40 and 56 Var from wild birds.

TABLE 1: Common gastro-intestinal infections, Scotland: laboratory reports, weeks 2006/1-28

Organism	Number of reports				Total for period	Cumulative total to:	
	06/25	06/26	06/27	06/28		06/28	05/28
<i>Campylobacter</i>	156	156	143	96	551	2224	2070
<i>E. coli</i> O157	2	5	2	10	19	95	74
<i>Shigella sonnei</i>	0	2	2	9	13	28	39
Rotavirus	36	23	11	14	84	1535	1498
Norovirus	29	24	6	2	61	1985	1303
<i>Cryptosporidium</i>	10	2	4	5	21	225	344
<i>Giardia</i>	6	0	3	3	12	91	94

TABLE 2: *Salmonella* infections (excl. *S. Typhi* & *S. Paratyphi*), Scotland: reference laboratory identifications, weeks 2006/1-28

Salmonellas	Number of reports				Total for period	Cumulative total to:	
	06/25	06/26	06/27	06/28		06/28	05/28
<i>S. Enteritidis</i> PT4	2	2	2	4	10	18	16
<i>S. Enteritidis</i> (other PTs)	5	7	4	8	24	109	101
<i>S. Typhimurium</i> DT104	6	4	1	0	11	25	42
<i>S. Typhimurium</i> (other PTs)	1	1	4	3	9	40	44
Other <i>Salmonellas</i>	4	9	6	16	35	144	122
Total (excl. <i>S. Typhi</i> & <i>S. Paratyphi</i> )	18	23	17	31	89	336	325

TABLE 3: Viral gastro-enteritis and Hepatitis A, Scotland: laboratory reports, weeks 2006/1-28

Organism	Number of reports				Total for period	Cumulative total to:	
	06/25	06/26	06/27	06/28		06/28	05/28
Adenovirus	11	32	15	8	66	654	608
Calicivirus	0	0	0	0	0	0	0
Astrovirus	0	1	1	0	2	14	22
Hepatitis A	0	0	0	0	0	11	12

TABLE 4: Other gastro-intestinal infections, Scotland: laboratory reports, weeks 2006/1-28

Organism	Number of reports				Total for period	Cumulative total to:	
	06/25	06/26	06/27	06/28		06/28	05/28
<i>Yersinia</i>	1	0	2	1	4	20	22
<i>Aeromonas</i>	1	1	3	4	9	60	51

TABLE 5: *Salmonella* infections in animals: reference laboratory identifications, weeks 2006/1-28

Salmonellas	Bovine		Ovine		Avian		Poultry		Other		Total	
	06/1-28	05/1-28	06/1-28	05/1-28	06/1-28	05/1-28	06/1-28	05/1-28	06/1-28	05/1-28	06/28	05/28
<i>S. Enteritidis</i>	0	0	0	0	0	1	0	0	0	0	0	1
<i>S. Typhimurium</i> DT104	16	23	1	0	0	1	0	0	2	1	19	25
<i>S. Typhimurium</i> (other DTs)	1	3	1	3	124	36	0	0	12	11	138	53
<i>S. Dublin</i>	57	63	0	3	0	0	0	0	2	2	59	68
Other <i>Salmonellas</i>	9	8	12	24	2	5	0	0	32	34	55	71
Total	83	97	14	30	126	43	0	0	48	48	271	218

The last Gastro-intestinal and foodborne infections Surveillance Report was in Issue 06/25  
The next Gastro-intestinal and foodborne infections Surveillance Report will be in Issue 06/33

Reusable pen injection devices are intended to be used by patients for the self-administration of medications such as insulin and growth hormone. In certain circumstances, it may however be necessary for a healthcare worker to administer medication using the patient's pen injection device, e.g. training the patient to use a pen injection device.

The notice (accessible at [http://www.show.scot.nhs.uk/shs/hazards\\_safety/SANPDF/SAN0629.pdf](http://www.show.scot.nhs.uk/shs/hazards_safety/SANPDF/SAN0629.pdf)) details the precautions to be adopted in such cases.

### BPSU marks 20 years of active paediatric surveillance

**40/2905** In July 2006 the British Paediatric Surveillance Unit (BPSU, <http://bpsu.inopsu.com/>) celebrated its twentieth year of surveillance. The unit was founded in 1986 by the Public Health Laboratory Service (now the Health Protection Agency),

the Royal College of Paediatrics and Child Health, the Institute of Child Health (London), the Royal College of Physicians (Ireland) and the Scottish Centre for Infection and Environmental Health (now Health Protection Scotland). The unit's aim was, and is, to undertake surveillance of rare conditions in childhood (0 to 15 years), including infections, and to provide a mechanism to rapidly investigate acute public health events affecting children.

Twenty years on, there is evidence that the system is acceptable, sustainable and is producing high quality data about a range of relatively rare but important childhood conditions that are informing and influencing a variety of activities concerned with child health in the UK. For more details concerning the history of the system see the current *Eurosurveillance Weekly* article available at <http://www.eurosurveillance.org/ew/2006/060720.asp#4>.

## Statutory Notification of Infectious Diseases Week ended 14 July 2006

An ISD Scotland *National Statistics* release

Infectious Disease	Age Group																			
	All ages		Under 1		1 - 4		5 - 14		15 - 24		25 - 34		35 - 44		45 - 64		65 & over		Not known	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Bacillary dysentery	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chickenpox	241	267	19	23	143	146	61	67	4	7	3	7	6	7	2	3	-	1	3	6
Cholera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Erysipelas	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Food poisoning	85	87	1	2	5	3	3	5	13	15	13	10	10	14	26	26	14	12	-	-
Legionellosis	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-
Lyme Disease	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-
Malaria	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Measles	7	3	2	1	1	2	3	-	1	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infection	5	1	1	-	1	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-
Mumps	23	22	-	-	1	-	6	3	11	12	3	3	1	-	-	4	-	-	1	-
Rubella	-	3	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet fever	3	-	-	-	1	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-
Tuberculosis: resp.	2	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-
Tuberculosis: non-resp.	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Viral hepatitis	61	32	2	2	-	-	-	-	1	6	16	9	24	11	14	4	2	-	2	-
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	431	419	25	29	152	153	76	76	31	40	36	29	44	32	45	38	16	16	6	6

Infectious Disease	NHS BOARD AREA															Current week	Previous week	Current week last year	Total from 1st week of year	
	AC	AA	BR	DG	FF	FV	GR	GG	HG	LN	LO	OR	SH	TY	WI				2005**	2006*
Bacillary dysentery	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	8	4	56	49
Chickenpox	24	37	14	25	39	43	56	42	15	38	50	1	4	108	12	508	517	271	11 408	10 698
Cholera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
Erysipelas	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	8	13
Food poisoning	14	17	3	-	21	9	24	18	8	14	29	-	-	15	-	172	197	237	3 290	3 249
Legionellosis	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	1	-	6	12
Lyme Disease	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	2	2	-	19	32
Malaria	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	6	3
Measles	2	-	-	-	-	1	-	2	1	3	-	-	-	-	1	10	12	2	115	187
Meningococcal infection	-	-	-	-	2	2	-	1	-	-	1	-	-	-	-	6	-	4	99	82
Mumps	2	2	-	-	-	8	4	10	2	8	5	1	-	3	-	45	45	99	3 981	1 803
Rubella	-	-	-	-	1	-	-	1	-	-	-	-	-	1	-	3	3	1	95	98
Scarlet fever	-	-	-	-	-	1	1	-	1	-	-	-	-	1	-	3	5	2	148	203
Tuberculosis: resp.	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	2	8	3	113	140
Tuberculosis: non-resp.	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	4	7	51	67
Viral hepatitis	-	3	-	-	3	-	13	57	-	9	-	-	-	8	-	93	3	43	512	649
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	39	27
TOTAL	43	59	17	25	67	65	98	134	28	74	85	2	4	136	13	850	810	673	19 951	17 317

Amendments: None

\* This includes 1 Toxoplasmosis (HG wk 02) 2 Typhoid Fever (AA wk 24, AC wk 27)

\*\* This includes 2 Leptospirosis, 2 Puerperal fever

Source: Information and Statistics Division, National Services Scotland

NHS BOARD ABBREVIATIONS					
AC	Argyll & Clyde	DG	Dumfries & Galloway	GG	Greater Glasgow
AA	Ayrshire & Arran	FF	Fife	GR	Grampian
BR	Borders	FV	Forth Valley	HG	Highland
		LN	Lanarkshire	LO	Lothian
		OR	Orkney	SH	Shetland
				TY	Tayside
				WI	Western Isles