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This edition includes an update on avian influenza and refers to a revised algorithm for the management of those with febrile respiratory illness returning from localities affected with avian influenza in birds. Also included are links to useful sources of information. With the onset of autumn and the usual seasonal rise in respiratory infections it is important that health care professionals are aware of such guidance and regularly check key websites such as those of the Heath Protection Agency for updates.

West Nile Virus infection is an uncommon infection in Europe though this might change with climate change. While the risks of acquiring it in the UK are low, Northern Ireland has joined with other parts of the UK in establishing an appropriate surveillance programme. This, again, illustrates the close liaison and coordination that exists between the communicable disease surveillance centres throughout the UK.

There were no foodborne outbreaks reported during the second quarter. Nevertheless the number of salmonella reports over January - June is greater than in the same period last year. There was a particular increase in *S. typhimurium.* The reasons behind this increase are not clear and investigations are continuing.

Lastly, registration is now open for a major conference in November on tuberculosis being jointly hosted by CDSC (NI) and the Department of Health, Social Services and Public Safety. The programme will refer to new NICE guidelines being developed on the prevention, management and control of tuberculosis as well as presentations on the epidemiology of tuberculosis both locally, nationally and internationally. This conference should be of interest to a wide variety of healthcare professionals and as places are limited, early registration is advisable.

Dr Brian Smyth
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Contents Page

Articles

Laboratory Reports

Avian Influenza

- Spread of avian influenza (H5N1) in birds to Russia and Kazakhstan
- New algorithm for the management of returning travellers from countries affected by avian influenza presenting with febrile respiratory illness

Avian influenza (AI) naturally circulates in wild waterfowl such as ducks and geese often causing little or no symptoms. Many other bird species are susceptible to infection with these influenza viruses and in many of these species it may cause severe disease associated with high mortality. Outbreaks associated with high bird mortality are called highly pathogenic avian influenza (HPAI) to distinguish them from less pathogenic influenza.

The current unprecedented outbreak in poultry due to the influenza A H5N1 virus started in Vietnam and has now involved other countries in the Far East including Thailand, China, S Korea, Indonesia, Laos and Japan. During July and August outbreaks were reported from Kazakhstan, Mongolia, China and the Novosibrisk region of Russia[1]. Given the scale of the outbreaks in poultry the virus does not appear to readily infect humans. WHO reports to 5 August there have been 112 cases and 57 fatalities reported from Vietnam, Thailand, Cambodia and Indonesia. Vietnam has reported the majority of cases (90) and deaths (40)[2]. All human cases are thoroughly investigated to determine the likely source of infection.

The Health Protection Agency (HPA) has revised its algorithm for the management of travellers returning from affected areas presenting with febrile respiratory illness (http://www.hpa.org.uk/infections/topics_az/avianinfluenza/algorithm.htm). The changes include reference to the newly affected geographical areas, a more definite recommendation on the use of the antiviral oseltamivir in suspected cases that fit the algorithm and ensuring that Chlamydia and Coxiella are considered in the diagnosis. The Heath Protection Agency (HPA) website has extensive information on avian influenza and links to other relevant websites, for example, WHO (www.who.int) and the World Organisation for Animal Health (http://www.oie.int/eng/en_index.htm). The HPA website also provides:

- General information and advice
- Epidemiological data
- Guidelines
- News and updates
- Travel advice

In Northern Ireland contingency planning for a possible outbreak of HPAI in poultry continues as does planning against a potential human influenza pandemic. The DHSSPS issued its interim Influenza Pandemic Contingency plan in March[3] describing the roles of health sector organisations at each alert level.

References

1. Update on avian influenza in animals in Asia (Type H5) (http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm)
2. Cumulative number of confirmed human cases of Avian Influenza A H5N1 reported to WHO (http://www.who.int/csr/disease/avian_influenza/country/cases_table_2005_08_05/en/index.html)
3. Northern Ireland Interim Influenza Contingency Plan (http://www.dhsspsni.gov.uk/publications/2005/NI-Influenza-Pandemic-Plan1.pdf)

Surveillance of human West Nile Virus infection

Arrangements for the surveillance of human West Nile Virus (WNV) infection acquired in the UK have been in place in Northern Ireland since 1 August 2005 and will continue to 31 October 2005. This is the first year Northern Ireland has participated in the UK scheme.

WNV is transmitted by mosquitoes, its natural host being many species of birds. First isolated in 1937 in Uganda, the infection appeared initially confined largely to Africa and India. Outbreaks were reported in Europe in the 1990s, and in the US since 1999. During 2004, 2470 human cases were reported in the US and, in Europe, two cases thought to have been acquired in Portugal. As of May 2005, no cases have been reported from the UK to date.

Although the risk of cases occurring in the UK is thought to be low, it is prudent to maintain surveillance of mosquito, bird, animal and human populations, given the spread of WNV elsewhere.

Clinicians should consider the possibility of WNV infection in patients presenting with suspected viral encephalitis, viral meningitis or acute flaccid paralysis; particularly in patients over 50 years of age.

A protocol and reporting form are available at:
http://www.cdscni.org.uk/forms/default.asp

Further information on WNV is available at:
http://www.hpa.org.uk/infections/topics_az/west_nile/menu.htm

TB Conference

Registration forms and a final programme are now available for the regional conference “The changing face of tuberculosis in Northern Ireland: current issues and future problems”. This will be held at the Park Avenue Hotel in Belfast.

Please go to our website http://www.cdscni.org.uk/events/default.asp

Places are limited – so early registration is advised.

ACMSF publishes second Camplyobacter report

The Advisory Committee on the Microbiological Safety of Food (ACMSF) advises the Food Standards Agency (FSA) on microbiological issues in food. The Committee has produced a series of subject-specific reports on: vacuum packaging and associated processes; an interim report on campylobacter; verocytotoxin-producing *Escherichia coli* (VTEC); poultry meat; foodborne viral infections; microbial antibiotic resistance in relation to food safety; *Mycobacterium bovis* and two reports on salmonella in eggs. Following public consultation on the document, its Second Report on Campylobacter has recently been published.

Campylobacter is currently the biggest identified cause of bacterial infectious intestinal disease in the United Kingdom and as such, a significant reduction in human campylobacteriosis would contribute towards the FSA achieving one of its key strategic aims to reduce the incidence of foodborne disease by 20% by 2006.

The report reviews current information on the detection, typing and epidemiology of Campylobacter, and its ability to cause disease. Measures for preventing contamination in poultry and other meat, and methods for tackling Campylobacter in domestic and catering environments are considered. Key areas that the Committee deems require longer-term research are included in an annex to the report.

The report is available in hard copy from the Secretariat (email: acmsf@foodstandards.gsi.gov.uk), quoting document reference FSA/0986/06, or at the following link:
http://www.food.gov.uk/multimedia/pdfs/acmsfcampylobacter.pdf

Foodborne and gastrointestinal infections: January to June 2005

Surveillance of foodborne and gastrointestinal infection is based on notifications from doctors of patients presenting with symptoms of food poisoning, laboratory reports of enteric organisms and outbreak reports.

During the first six months of 2005, CDSC (NI) has received 628 notifications of food poisoning and 419, 91, 59 and 14 laboratory confirmed reports of *Campylobacter*, *Cryptosporidium*, *Salmonella* and *E. coli* O 157 respectively.

Food poisoning notifications rose steadily during the 1990s and peaked in 2000. Over the next two years they fell by almost half, but started to rise again in 2003. This trend looks set to continue: during the first six months of this year CDSC (NI) has received 628 notifications of food poisoning compared with 612 to the end of June 2004.

Laboratory reports of *Salmonella* and *Campylobacter* also rose during the 1990s and peaked in 1999 and 2000 respectively, following which there was a steady decline until 2003. However, 2004 saw an increase in reports of both of these pathogens.

Reports received to the end of June 2005 indicate a 44% increase in *Salmonella* for the first half of the year compared to the same period of 2004, despite no reported outbreaks. However the 3 S*almonella* outbreaks in 2004, which accounted for approximately half of that year's laboratory reports, occurred in the second half of the year. The rise appears to be due to the increase in reports of *S. enteritidis* and *S. typhimurium* as a similar number of reports of other serotypes was received in the first half of 2005 (13) compared with 2004 (12). Further comment will be provided when all the serotype and phagetype results become available. There was a cluster of *S. Saint-Paul* (4 cases) that occurred at the same time as a small increase in incidence in England but the cause was not established.

The number of reports of *Campylobacter* received until the end of June 2005 is slightly higher than the number received during the same period of 2004: 419 in 2005, compared with 395 in 2004. Reports of *Cryptosporidium* equal the number received during the first half of 2004.

The number of reports of *E. coli* O 157 received up to the end of June 2005 has almost reached the total number received in 2004. Around 50 reports were received in 1999, 2000, 2001 and 2003 with 27 in 2002. Only 19 laboratory confirmed cases were reported in 2004 which was the lowest annual total since 1996. Of the 14 reports received to the end of June 2005, 7 were associated with an incident in a school in the Northern Health and Social Services Board.

Figure 1: Laboratory reports of *Salmonella and E. coli* O 157 received January - June, 2004 & 2005

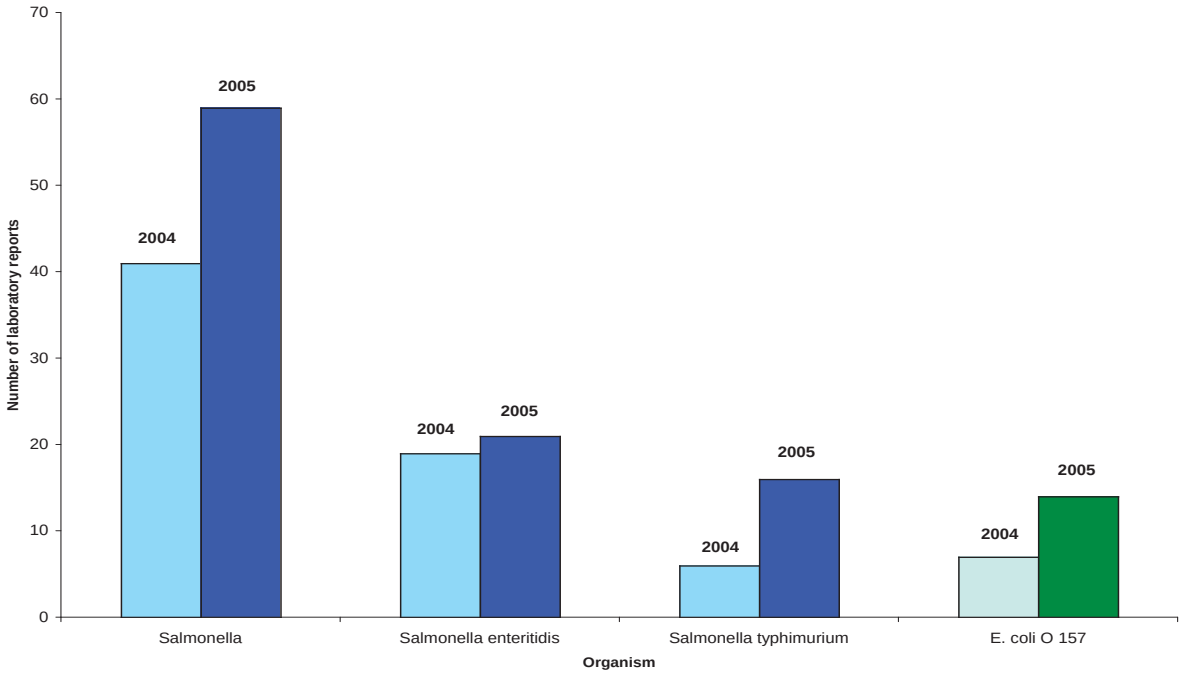

Figure 2: Notifcations of food poisoning and laboratory reports of major enteric pathogens, 1995-2004, Northern Ireland

Foodborne and gastrointestinal outbreaks: April - June 2005

Outbreak surveillance is primarily based on reports received from Consultants in Communicable Disease Control (CsCDC). There were 38 gastrointestinal outbreaks reported to CDSC (NI) during the first quarter of 2005, affecting at least 370 people (CDSC (NI) Monthly Bulletin Vol 14 No 4). The majority of these (31) were confirmed viral – 30 were secondary to Norovirus and one was caused by Rotavirus. There was also one foodborne outbreak reported.

Considerably fewer outbreaks were reported during the second quarter of the year (Table 1). There were no foodborne outbreaks reported. Fourteen other gastrointestinal outbreaks were reported with over half occurring in April. Norovirus was identified as the causative organism in 12 of the outbreaks, *E. coli* O 157 in one and Rotavirus/Clostridium difficile in one. At least 157 people were ill as a result of the outbreaks, eight of which occurred in hospitals.

The numbers of laboratory confirmed cases in the viral outbreaks were much lower than the number of cases who were ill, as a diagnosis can usually be made quickly and confidently based on clinical and epidemiological evidence, particularly if vomiting is a prominent symptom. Once the laboratory has identified the organism, analysing further specimens serve no useful purpose.

Table 1: General Outbreaks[1] of foodborne and other gastrointestinal illness reported to CDSC (NI), April - June 2005*

Gastrointestinal outbreaks						
Month	**Board**	**Location**	**Organism**	**Suspect vehicle[2]**	**No. ill[3]**	**No +ve**
Apr	E	Hospital	Norovirus	Person/person	7	n/a
Apr	N	Hospital	Norovirus	Person/person	n/a	3
Apr	N	Hostel	Unknown	Person/person	7 staff, 8 residents	n/a
Apr	N	Residential Institution	Norovirus	Person/person	35 residents, 17 staff	1
Apr	N	Resource Centre	Norovirus	Person/person	2	n/a
Apr	W	Community	Norovirus	Person/person	4	n/a
Apr	W	Hospital	Norovirus	Person/person	3	n/a
Apr	W	Hospital	Norovirus	Person/person	n/a	1
Apr	W	Residential Institution	Norovirus	Person/person	15 residents, 11 staff	4
May	N	School	*E. coli* O 157	n/a	n/a	7
May	W	Hospital	Norovirus	Person/person	11 patients	3
May	W	Hospital	Norovirus	Person/person	n/a	4
May	W	Hospital	Norovirus	Person/person	4	4
May	W	Hospital	Norovirus	Person/person	n/a	1
Jun	N	Residential Institution	Rotavirus/*C. Diff*	Person/person	28 residents, 5 staff	2

* Data provisional

[1]General outbreaks involve members of more than one household;
[2]Local investigations may not provide conclusive evidence of vehicles of infection. Vehicles are therefore designated 'suspect';
[3]The number known to be ill.

Monthly surveillance figures for Creutzfeldt-Jakob Disease

Table 2 shows surveillance figures for definite and probable cases of Creutzfeldt-Jakob disease (CJD) in the United Kingdom up to 29 July 2005. In 2004, there were 114 referrals to the CJD Surveillance Unit with nine confirmed as vCJD. To date in 2005 there have been 74 referrals to the unit with two confirmed as vCJD.

While this version of the table does not show figures for years prior to 1995 (the first year for which there are vCJD confirmations), a more extended version can be accessed on the Department of Health website (most easily at the Department's press release page http://www.dh.gov.uk/PublicationsAndStatistics/PressReleases/fs/en).

Table 2: Definite and probable CJD cases in the UK from 1995 to 29 July 2005

Year	Referrals for investigation	Deaths					
		Sporadic	Iatrogenic	Familial	GSS*	vCJD confirmed	vCJD Probable still alive
1995	87	35	4	2	3	3	-
1996	133	40	4	2	4	10	-
1997	162	60	6	4	1	10	-
1998	154	63	3	3	2	18	-
1999	170	62	6	2	0	15	-
2000	178	50	1	2	1	28	-
2001	179	58	4	3	2	20	-
2002	163	72	0	4	1	17	-
2003	162	77	5	4	2	18	-
2004	114	52	2	3	1	9	-
2005	74	24	1	1	1	2	7
Total						150	

*Gerstmann-Straussler-Scheinker syndrome

Foodborne and gastrointestinal tract infections: Laboratory reports, Weeks 29-32

	Number of Reports received		Cumulative total	
	05/29-32	04/29-32	05/01-32	04/01-32
Campylobacter	61	67	513	508
C. difficile Toxin	50	124	967	880
C. perfringens	1	0	11	6
E. coli O 157	7	1	22	9
Salmonella total	16	71	90	214
S. enteritidis (PT 4)	9	19 (2)	38 (3)	49 (5)
S. typhimurium (DT 104)	2	40 (30)	20 (3)	134 (89)
Salmonella other	5	12	32	31
Shigella	0	3	1	7
Cryptosporidium	9	7	103	101
Giardia	1	0	11	9
Adenovirus (faeces)	5	10	112	96
Enterovirus (faeces)	1	0	17	9
Rotavirus	8	17	390	422
Norovirus	1	1	188	71

Salmonella (other than *enteritidis* or *typhimurium*):

S. sp 3
S. unnamed 2

Comment:

The following were associated with foreign travel:

Male, age 29 years, *S. enteritidis*, Spain.

With the exception of *Salmonella*, *Shigella* and Rotavirus, cumulative totals of laboratory reports of gastrointestinal tract infections to week 32 are exhibiting a rise compared with the same period in 2004.

Reports of *Campylobacter* and *Cryptosporidium* are more or less the same.

Laboratory reports of Norovirus have more than doubled compared with the same period last year.

Mycobacteria: Laboratory reports, Weeks 21-32

	Number of Reports received			Cumulative total	
	05/21-24	05/25-28	05/29-32	05/01-32	04/01-32
M. abscessus	0	0	0	1	4
M. avium-intracellulare group	1	4	0	17	16
M. bovis	0	0	0	1	2
M. chelonae	0	0	0	1	2
M. fortuitum	1	0	0	2	1
M. gordonae	2	0	0	9	5
M. kansasii	0	0	0	1	2
M. malmoense	0	0	0	0	4
M. peregrinum	0	0	0	1	1
M. sp	0	1	0	2	2
M. terrae	0	0	0	1	0
M. tuberculosis	3	2	0	21	39
TOTAL	7	7	0	57	78

Comment:

Five cases of *M. avium intracellulare* were reported during weeks 21 – 32, 2005. Three cases were male, aged between 15 and 71 years. Two were female, aged 43 and 81 years. Three were isolated from sputum and two from lower respiratory tract.

There was one case of *M. fortuitum* isolated from sputum during this reporting period. The case was male, aged 34 years.

Two cases of *M. gordonae* were isolated from sputum. One case was female aged 59 years and one case was unknown sex, aged 73 years.

There was one case of *Mycobacterium sp* during this twelve week reporting period. The case was male, aged 25 years and the specimen was pus (unknown source).

Five cases of *M. tuberculosis* were reported during this reporting period. Three cases were female, aged between 12 and 22 years; two cases were male, aged 13 and 32 years. Two cases were isolated from sputum, two from pleura and one from pus (source unknown).

Contributing Laboratories

Altnagelvin
Antrim
Belfast City
Belvoir Park
Causeway
Craigavon
Daisyhill
Erne
Mater
Musgrave Park
Regional Mycology
Regional Virus
Royal Victoria
Tyrone County
Ulster

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Comments and contributions are welcomed and should be sent to the Editor.

Monthly numbers are provisional and should not be used to indicate trends.