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# News

Last updated: 9 February 2007, Volume 1, No 6

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- ▶ Highly Pathogenic Avian Influenza (H5N1) Virus Infected a Turkey Farm in Suffolk, England
  - ▶ Use of antiviral drugs for influenza
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## Highly Pathogenic Avian Influenza (H5N1) Virus Infected a Turkey Farm in Suffolk, England

On Saturday, 3 February 2007, the Department for the Environment Food and Rural Affairs (Defra) reported that turkeys on a large farm near Lowestoft in north Suffolk had been confirmed by the Veterinary Laboratories Agency (VLA) to have been infected with H5N1 avian influenza virus [1]. Later that day, the VLA confirmed that the influenza virus identified in the poultry was of the highly pathogenic Asian lineage and similar to the virus found in Hungary in January 2007 [2].

From 3 February 2007, the State Veterinary Service (SVS) has enforced a Protection Zone, with a radius of three kilometres, and a Surveillance Zone, with a radius of 10 kilometres, around the premises, where poultry must be isolated from wild birds [1]. The farm itself has been under restrictions since Thursday evening (1 February 2007) when a health problem in turkeys on the farm was first noted. In consultation with ornithologists, a wider Restricted Zone, of approximately 2090 square km, was also introduced in which the isolation of poultry from wild birds is required and all bird movements must be licensed [3].

Humane culling of turkeys at the infected farm began on Saturday 3 February and was completed by the evening of 5 February 2007 [4]. Among the total of 159,000 turkeys on the farm, 2,500 were reported to have died [5] and the rest were culled.

The level of risk to the general public from H5N1 infection as a result of this incident is assessed to be extremely low. The UK Food Standards Agency and the World Health Organization have advised that there is no risk in eating properly cooked poultry, including turkey and eggs [6,7].

Nonetheless, any possibility of human exposure is taken very seriously and the Health Protection Agency (HPA) has continued to work closely with Defra and local NHS partners to ensure that all the necessary actions have been taken to protect those people who may have been exposed to the virus, particularly those who have been in close contact with the infected poultry or their immediate environment. The measures include the use of personal protective equipment, the offering of antiviral drugs and seasonal influenza vaccine, provision of information and follow-up for any sign of illness.

To facilitate the response to the incident, the HPA has produced new guidance (a) on the management of personnel, involved in the response to the occurrence of confirmed highly pathogenic avian influenza (H5N1) in poultry in the UK, presenting with febrile respiratory illness, and (b) guidance on post-exposure prophylaxis (PEP) for farm workers/residents, SVS staff, and cullers involved in confirmed or suspected outbreaks of highly pathogenic avian influenza suspected or known to be due to H5N1 in poultry in the UK [8].

### References:

1. H5N1 avian influenza confirmed in poultry (News release) London: Defra, 3 February 2007. Available at <<http://www.defra.gov.uk/news/2007/070203a.htm>>.
2. H5N1 in poultry in Suffolk confirmed as Asian strain of avian influenza (News release). London: Defra, 3 February 2007. Available at <<http://www.defra.gov.uk/news/2007/070203b.htm>>.

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  6. Bird flu advice: 3 February 2007 . Food Standards Agency website [online]. 3 February 2007 [accessed 8 February 2007]. Available at <<http://www.food.gov.uk/news/newsarchive/2007/feb/avianflu>>.
  7. Avian influenza - situation in Nigeria – update. Geneva: World Health Organization 2007. Available at <[http://www.who.int/csr/don/2007\\_02\\_03/en/index.html](http://www.who.int/csr/don/2007_02_03/en/index.html)>.
  8. Guidance relating to suspected human cases of avian influenza returning to the UK. HPA Website [online] 6 February 2007. [Accessed 8 February 2007]. Available at <[http://www.hpa.org.uk/infections/topics\\_az/influenza/avian/guidelines.htm](http://www.hpa.org.uk/infections/topics_az/influenza/avian/guidelines.htm)>.
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### **Use of antiviral drugs for influenza**

On 8 February 2007 the UK Department of Health issued a letter to all general practitioners in England to inform them that the use of antiviral drugs for the treatment or prophylaxis of influenza was now recommended, in line with the NICE guidance (<http://www.nice.org.uk>) [1]. The most recent influenza surveillance data for England show that the overall rate for influenza has exceeded the threshold at which the use of antivirals is triggered. The overall GP consultation rate for influenza-like illness in England and Wales based on RCGP data, has increased from 16.8 per 100,000 in week 04/2007 to 30.2 per 100,000 in week 05/2007. The rise in the consultation rate is most evident in children aged 5 to 14 years.

### **References**

1. Influenza Season 2006/07 – Use of antivirals Department of Health Gateway Reference Number 7824. London: Department of Health, February 2007. Available at <<http://www.info.doh.gov.uk/doh/embroadcast.nsf>>.

# Enteric

Last updated: 9 February 2007, Volume 1, No 6

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## Enteric Routine Data Reports

- ▶ General outbreaks of foodborne illness in humans, England and Wales: weeks 01-05/07
- ▶ Salmonella infections, (faecal specimens) England and Wales, reports to the HPA (Salmonella data set): December 2006
- ▶ Common gastrointestinal infections, England and Wales: laboratory reports: weeks 01-05/07
- ▶ Typhoid and paratyphoid, England and Wales: laboratory reports, October to December 2006

### General outbreaks of foodborne illness in humans, England and Wales: weeks 01-05/07

Preliminary information has been received about the following outbreaks.

Health Protection Unit	Organism	Location of food prepared or served	Month of outbreak	Number ill	Cases positive	Suspect vehicle	Evidence
National	S. Schwarzengrund	National	November 2006 to January 2007	67	67	–	–

M (microbiological): identification of an organism of the same type from cases and in the suspect vehicle, or vehicle ingredient(s), or detection of toxin in faeces or food; D (descriptive): other evidence, usually descriptive, reported by local investigators as indicating the suspect vehicle or food; S (statistical): a significant statistical association between consumption of the suspect vehicle(s) and being a case.

### Salmonella infections (faecal specimens), England and Wales, reports to the HPA Salmonella data set): December 2006

Details of serotypes of 919 salmonella infections recorded in December are given in the table below. In January 2007, 862 salmonella infections were recorded and preliminary information was received about one outbreaks (see table above).

	December 2006
S. Enteritidis (PT4)	127
S. Enteritidis (other PTs)	370
S. Typhimurium	116
S. Virchow	35
Others (typed)	271
<b>Total Salmonella (provisional data)*</b>	<b>919</b>

\*Figures quoted from the Health Protection Agency S. data set are for isolates confirmed and typed by Laboratory of Enteric Pathogens (LEP).

## Common gastrointestinal infections, England and Wales, laboratory reports: weeks 01-05/07

Laboratory reports	Number of reports received					Total reports 01-05/07	Cumulative total to	
	01/07	02/07	03/07	04/07	05/07		05/07	05/06
<i>Campylobacter</i>	417	514	477	328	28	1764	1764	3102
<i>Escherichia coli</i> O157*	2	8	4	9	6	29	29	20
<i>Salmonella</i> †	206	231	203	124	146	910	910	786
<i>Shigella sonnei</i>	9	7	14	13	–	43	43	53
Rotavirus	75	90	98	101	31	395	395	1254
Norovirus	153	154	72	31	3	413	413	654
<i>Cryptosporidium</i>	26	43	30	28	1	128	128	208
<i>Giardia</i>	34	39	30	24	4	131	131	254

\*Vero cytotoxin-producing isolates (data from Health Protection Agency's Laboratory of Enteric Pathogens (LEP).

† Data from Health Protection Agency's Laboratory of Enteric Pathogens

## Typhoid and paratyphoid, England and Wales: laboratory reports, October to December 2006

Organism and phage type	Number of cases	Infection acquired abroad			Excretors and carriers
		Yes	No	Not reported	
<i>S. Typhi</i>					
<b>Phagetype</b>					
D1	1	1	–	–	–
D2	2	1	–	1	–
D4	1	–	–	1	–
E1	17	9	–	8	–
E2	1	1	–	–	–
E9	12	3	–	9	–
E14	1	–	–	1	–
N	1	1	–	–	–
Degraded	4	2	–	2	–
Untypable	1	–	–	1	–
Untypable Vi-1	4	2	–	2	–
Untypable Vi-7	8	6	–	2	–
Total	53	26	–	27	–
<b>S. Paratyphi A</b>					
1	5	1	–	4	–
1A	6	2	–	4	–

2	8	5	-	3	-
3	2	2	-	-	-
4	6	4	-	2	-
6	1	-	-	1	-
6A	3	2	-	1	-
13	13	6	-	7	-
Untypable	3	1	-	2	-
Total	47	23	-	24	-
<b>S. Paratyphi B</b>					
Dundee	1	-	-	1	-
Total	1	-	-	1	-

Fifty-three cases of *Salmonella Typhi* infection were reported in the fourth quarter of 2006. Twenty-six cases were infected abroad (Indian subcontinent 23, Indonesia 2, Abroad country unspecified 1). In 27 cases, the country of infection was not stated.

Forty-seven cases of *S. Paratyphi A* infection were reported. Twenty-three cases were infected abroad (Indian subcontinent 19, abroad country unspecified 3, and Indonesia 1). In 24 cases, the country of infection was not stated.

One case of *S. Paratyphi B* infection was reported; the country of infection was not stated.

## Emerging Infections/CJD

Last updated: 9 February 2007, *CDR Weekly*, Volume 16, No 50 Next update: 11 May 2007

### Emerging Infections Update: July to December 2006

Monthly summaries of notable events and developments of potential public health importance are produced by the Emerging Infections and Zoonoses Department, for circulation to recipients including the Chair and members of the National Expert Panel on New and Emerging Infections (<http://www.advisorybodies.doh.gov.uk/nationalexpertpanel/index.htm>). Incidents reported over recent months are shown in the table below. Events are identified through horizon scanning activities and then logged and systematically followed up. Multiple sources are scanned including: ProMED online <<http://www.promedmail.org>>; World Health Organization sources (Disease Outbreak News <<http://www.who.int/csr/don/en/>>, Weekly Epidemiological Record <<http://www.who.int/wer/en/>>, Outbreak Verification List); Eurosurveillance Weekly (<http://www.eurosurveillance.org/index-02.asp>); the Global Public Health Intelligence Network (GPHIN) early warning system; CIDRAP online <<http://www.cidrap.umn.edu/index.html>>; CDC Morbidity and Mortality Weekly Report <<http://www.cdc.gov/mmwr/>>; Emerging Infectious Diseases journal <<http://www.cdc.gov/ncidod/EID/index.htm>> and the wider scientific literature.

**Table 1 Summary of notable events/incidents of potential public health significance**

Month reported	Incident	Location/ Description
Jul-06	Anthrax	United States, Canada
	Avian influenza	Indonesia, Thailand (human)
		Nigeria: H5N1 lineages
		H5N1 synthetic hybrid virus study
	Botulism (bovine)	Scotland
	Crimean-Congo haemorrhagic fever	Turkey
	Global Early Warning and Response system launched by WHO, OIE and FAO	
	Lassa fever	Germany ex-Sierra Leone
	<i>Mycobacterium bovis</i> , canine	England
	Plague	Democratic Republic of Congo
Q fever	Scotland	
Aug-06	Anthrax	Canada (livestock and human), Scotland (human)
	Avian influenza	China, Indonesia, Thailand (human)
		WHO standardised case definitions
		Cambodian serosurvey data
	Bluetongue	Northern Europe
Canine babesiosis, possible autochthonous transmission	England	

	Canine transmissible venereal tumour	New research
	Equine infectious anaemia	Republic and Northern Ireland
	Pasteurella infection, fatal	England
	PETS travel scheme	UK data
	Plague (human)	United States
	Undiagnosed deaths	India
<b>Sep-06</b>	Anthrax	Canada
	Avian influenza	Indonesia, Iraq, Thailand (human), South Korea (asymptomatic human)
		Thailand (dog infection)
		UK wild bird surveillance
	Chikungunya virus	UK (imported), India
	Extensively drug resistant tuberculosis	South Africa
	Increased incidence of listeriosis 2001-4	England and Wales
	Poliomyelitis	India, Nigeria, Afghanistan
	Trichinellosis	France
	Trichomoniasis	UK (garden birds)
Tularemia	Sweden	
<b>Oct-06</b>	Avian influenza	Egypt, Indonesia
		New sub-lineage emergence
		Vaccine initiatives, WHO Global Action Plan
	Bluetongue virus serotype 8	Europe, indigenous vector transmission
	Extensively drug-resistant tuberculosis	South Africa
	Leprosy and HIV co-infection	Brazil, India, Africa, Caribbean – new study
	Legionellosis increase	England and Wales, the Netherlands
	Suspected pneumonic plague	Democratic Republic of Congo
	Poliomyelitis	Kenya, India
	Medicine contamination	Panama
<i>Mycobacterium bovis</i> , human cluster – investigation report	England	
Rabies and EBLV	China, England	
<b>Nov-06</b>	Acute haemorrhagic fever syndrome	Angola
	Atypical scrapie, TSE-free sheep flock	UK
	Avian influenza	Indonesia (human)
		WHO working group report
Potential pandemic virus mutations – new		

		findings
	EBLV, human exposure	Denmark
	Emerging Infectious Diseases journal: special zoonoses issue	
	Extensively drug resistant tuberculosis	WHO Global Task force report
	Hendra virus (horse)	Australia (New South Wales)
	HIV group O-like SIV viruses in gorillas	Cameroon – new findings
	Legionellosis	England and Wales
	Poliomyelitis	Cameroon, Ethiopia, India
	Suspected pneumonic plague	Democratic Republic of Congo
<b>Dec-06</b>	Avian influenza	Egypt (human), Vietnam (avian)
		Overview of epidemiology during 2006
	Botulism in cattle	Revision of UK guidance
	Chikungunya	Maldives, UK imported cases
	<i>Chlamydia trachomatis</i>	Sweden
	New variant CJD	Netherlands, United States
		Transfusion risks
	Malaria	Jamaica
	Rabies	China
	Rift Valley fever	Kenya
Poliomyelitis	India, Kenya	
	Global case count	

### West Nile virus: US cases in 2006 and update on UK surveillance

The notable decline in the number of human cases of West Nile virus (WNV) in the United States (US) during 2004 has not continued and 2006 has seen an increase, with more than 4000 cases of which 149 were fatal. It remains to be seen how the epidemiology of WNV in the US progresses; future rates of human disease are currently unpredictable.

Since 2002 the annual totals of infected non-human species have changed as shown in table 2. Although bird and horse infections appear to be declining, the number of positive mosquito pools remains high.

**Table 2 West Nile virus activity in the US 2002 to 2006**

	2002	2003	2004	2005	2006
Avians	~14,000	11,350	7074	5266	4047
Equines	>15,000	5181	1341	1143	1035
Mosquito pools	4943	7725	8263	11386	11087
Human cases	4156	9862	2539	3000	4180 *
Fatal human cases	284	264	100	119	149 *

(Data source: CDC West Nile virus website: <http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm> )  
 \*(reported as of 03/01/2007)

United Kingdom surveillance for WNV has been ongoing since 2002, and no human cases of UK-acquired WNV have been found. The first case of WNV infection in a UK resident was identified in 2006, but this was in a member of the armed forces who had acquired the infection in Canada, where he was stationed. On his return to the UK samples were sent to the HPA Special Pathogens Reference Unit, which confirmed flavivirus IgG and IgM positive consistent with a recent flavivirus infection.

### **Poliomyelitis update**

A total of 1956 cases of polio were reported globally during 2006, an increase of 74 over the same period in 2005. Cases reported in non-endemic countries decreased from 1014 during 2005 to 126 in 2006, largely due to significant declines in cases in Yemen, Indonesia and Somalia. A major increase in cases was seen in the four remaining endemic countries of India, Nigeria, Afghanistan and Pakistan from 868 in 2005 to 1830 in 2006, the vast majority in Nigeria and India [1].

Northern Nigeria remains the global epicentre of polio, with 1098 cases (56% of global case count) reported from the country during 2006. The bulk of the Nigerian cases occurred during the first six months of 2006, and the burden decreased in the latter half of 2006 following increased immunisation activities. The introduction of Immunisation Plus Days (IPDs) offering oral polio vaccine, supplemental antigens and health interventions to communities has improved progress.

India reported the second highest number of cases during 2006, with 660 of 1956 cases (34%). A sharp rise in cases was seen in Uttar Pradesh and Bihar during 2006, accounting for the majority of the increase since 2005, when only 64 cases were reported from India. Supplementary immunisation campaigns have been carried out in high risk areas and large scale campaigns are planned targeting young children in Bihar and Uttar Pradesh every four weeks during 2006 [2].

### **Rift Valley Fever, Eastern Africa**

An outbreak of Rift Valley Fever (RVF) began in flood affected regions of Kenya during December 2006. As of 30 January 2007, a total of 411 suspected cases, including 121 deaths (Case fatality rate = 29%) have been reported in North Eastern, Coast, Eastern and Central Provinces. One hundred and thirty-one of these cases have been laboratory confirmed. The majority of cases have been reported from Garissa and Ijara districts in North Eastern province, however sporadic cases have been reported from elsewhere. Two cases have been diagnosed in Nairobi, in people who had travelled to Garissa. The outbreak appears to be in decline in most areas.

RVF is a mosquito borne infection which usually causes a mild, self-limiting disease with a case fatality rate of less than 1%; the high number of severe cases currently being reported suggests that the true number of cases may be much higher. The majority of cases are among herdsmen aged between 20 and 30 years, and deaths have also been reported in ruminants. Control activities are underway, and access to affected areas is difficult due to flooding, and many roads are inaccessible. Distribution of insecticide treated nets and indoor residual spraying are problematic due to the nomadic nature of the population. Vaccination of livestock around the affected areas is underway, and bans on livestock movement have been issued, and slaughterhouses and markets closed [3].

Cases have also been reported in neighbouring Somalia, where the deteriorating security situation is hampering control efforts, and recent heavy rains have left some areas inaccessible. As of 30 January 2007, a total of 100 suspected cases including 48 deaths have been reported in the south of the country, with 1 laboratory confirmed case. A major outbreak of RVF occurred in Kenya, Somalia, and Tanzania in 1997, following a period of heavy rainfall [4].

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# Diary

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Inclusion of courses and events in the HPR diary pages is for the convenience of readers, and should not be taken to imply that the Health Protection Agency endorses these events.

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- ▶ [Engineering aspects of infection control: steam sterilisation, washer-disinfectors, operating theatre ventilation and other aspects of hospital hygiene](#)

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## **[Engineering aspects of infection control: steam sterilisation, washer-disinfectors, operating theatre ventilation and other aspects of hospital hygiene](#)**

This course gives experience in both theory and practice of these aspects of infection control and takes place at a specialist training centre near Bristol (Eastwood Park) with hands-on teaching facilities. The course forms an essential element of the Diploma in Hospital Infection Control but is also open to all experienced infection control practitioners. There will be two courses in 2007: one from 14 to 18 May and another from 1 to 5 October.

This course is registered for 35 CPD points. The fee is £1400 (residential) or £1120 (non-residential). For details regarding registration and further information about the courses please write to Sheila Culkin, Laboratory of Healthcare Associated Infection, HPA, 61 Colindale Avenue, London NW9 5EQ, or email [Sheila.Culkin@hpa.org.uk](mailto:Sheila.Culkin@hpa.org.uk)