• Plague
• Smallpox
• Yellow fever

Group C mandatorily notifiable diseases

Most of the diseases in group C are new additions to the notification system. With the exception of trachoma, they are only under sentinel surveillance. This is because:

- Some of these diseases can only been diagnosed by state hospitals or other specialist institutions or laboratories. The notification done by these institutions is accepted as adequate.
- For diseases such as influenza, notification of each single case is not necessary, but identification of outbreaks and typing of infections is Surveillance of group C diseases is a new and important application in Turkey's healthcare system. Provincial health directorates are responsible for acting on the information generated.

The diseases in Group C are:

- Acute haemorrhagic fever syndromes
- Congenital rubella syndrome
- Echinococcus
- *Haemophilus influenzae* type B meningitis
- Influenza
- Legionnaires' disease
- Leprosy
- Leptospirosis
- New variant Creutzfeldt-Jakob disease (vCJD)
- Schistomiasis
- Sub-acute sclerozive panancephalitis (SSPE)
- Toxoplasmosis
- Trachoma
- Tularaemia
- Visceral leishmaniasis

Group D mandatory notifiable infectious agents

Group D involves the notification of an infectious agent. This is an important innovation that involves the direct participation of laboratories in the notification system. The aim is to get data on the source of communicable diseases that remain a public health problem, and to study the epidemiology of these diseases when necessary. Only laboratories using acceptable diagnostic techniques will be able notify cases. Group D data are notified to the provincial health directorates who implement actions. Group D surveillance type, with the role of the laboratories at the notification of the A, B, C group diseases, will obtain a working comprehension with quality assurance and standardisation.

The infectious agents in Group D are:

- *Campylobacter jejuni*
- *Chlamydia trachomatis* (as a sexually transmitted infection)
- Cryptosporidium
- *Entamoeba histolytica*
- Enterohemorraghic E. coli (EHEC)
- *Giardia intestinalis*
- *Listeria monocytogenes*
- Salmonella (Non-typhoidal Salmonellosis)
- Shigella

The information obtained from Group D surveillance, with the role of the laboratories at the notification of the A, B, C group diseases, will be quality assured and standardised.

The former communicable disease surveillance system has been completely replaced by the new system. Healthcare staff throughout Turkey are being trained in the new notification system. A national training meeting and several meetings at provincial level were held, and training materials have included 33 000 manuals, 50 000 CD-ROMS, and 100 000 posters.

Turkey has a Bilateral Cooperation Agreement (BCA) with the World Health Organization Regional Office for Europe, and it is hoped that this will be a source of funding for the new system.

Community-acquired PVL+ MRSA in Ireland: a preliminary report

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Published online 21 April 2005
(http://www.eurosurveillance.org/ew/2005/050421.asp#2)

Cases of community-acquired methicillin-resistant *Staphylococcus aureus* (CA-MRSA) infection were recently detected for the first time in Ireland [1]. CA-MRSA infections have been reported in recent years from many countries around the world. In a study comparing 117 CA-MRSA isolates from three continents, it was shown that in all cases, methicillin resistance was encoded by the SCC*mec* IV genetic complex. In addition, all the isolates contained the Panton-Valentine leukocidin (PVL) genes *lukS-PV* and *lukF-PV*. These encode the synergistic PVL proteins LukS and LukF, which damage host cell membranes.

In a preliminary study of blood culture isolates of MRSA submitted to the Irish National MRSA Reference Laboratory during the second quarter of 2003, from Irish hospitals participating in the European Antimicrobial Resistance Surveillance System, two of 112 isolates carried the PVL genes. Six isolates (from skin or nose) from six patients in whom CA-MRSA infection was suspected in 2004 also tested positive for PVL genes. All of these isolates have not yet been tested for *mec*A by PCR but were methicillin resistant by disk diffusion. Four of the 2004 isolates were obtained from one family: a child with a soft tissue infection and three asymptomatic family members. The other two patients had skin infections and an epidemiological link was suspected but not proven.

Seven of the eight patients with PVL+ MRSA did not have risk factors for hospital acquisition of MRSA. Specifically, they had not been admitted to hospital for at least two years, they had not used antimicrobials within the last year or had close contact with a healthcare worker or relative who had recently been in hospital. The isolate from the eighth patient was probably acquired in the community abroad.

All eight isolates were susceptible to ciprofloxacin; seven isolates were susceptible to erythromycin; and the four isolates from the one family were resistant to fusidic acid. Studies to further characterise these isolates and to determine the prevalence of PVL among other patient populations in Ireland are on-going but the results of this preliminary investigation suggest that CA-MRSA may already be a problem in Ireland.

MRSA is a major cause of hospital-acquired (HA) infection but in recent years it is being reported with increasing frequency in the community worldwide [2-4]. In the past, investigation of apparent CA-MRSA usually revealed some underlying healthcare-associated (HCA) risk factor such as recent hospitalisation, close contact with a patient who had been in hospital recently or previous antibiotic therapy. While hospital acquired-MRSA (HA-MRSA) may contribute to the burden of MRSA in the community, MRSA in patients without healthcare-associated risk factors is an emerging problem.

CA-MRSA has been reported worldwide in schools, prisons, sports teams, day-care centres, homeless shelters and military bases. Risk factors among these groups were minor skin trauma and risky practices including sharing of personal items such as towels. CA-MRSA from different geographical areas share a number of characteristics. Unlike HA-MRSA which are frequently multi-antibiotic resistant, CA-MRSA tend not to be multi-antibiotic resistant, tend to exhibit lower oxacillin minimum inhibitory concentrations and have shorter doubling times [2-5].

Clinically CA-MRSA appears to be more virulent than methicillin susceptible *Staphylococcus aureus* (MSSA) (PVL is found in only 2% to 3% of MSSA strains) [4,6]. In addition to PVL, one strain of

CA-MRSA has been shown to carry many additional virulence genes [2,4,7].

The National MRSA Reference Laboratory is inviting microbiology laboratories throughout Ireland to submit suspect isolates for testing.

Adapted from reference 1 by the Eurosurveillance editorial team.

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Trichinellosis outbreak in Latvia linked to bacon bought at a market, January-March 2005

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Published online 12 May 2005
(http://www.eurosurveillance.org/ew/2005/050512.asp#2)

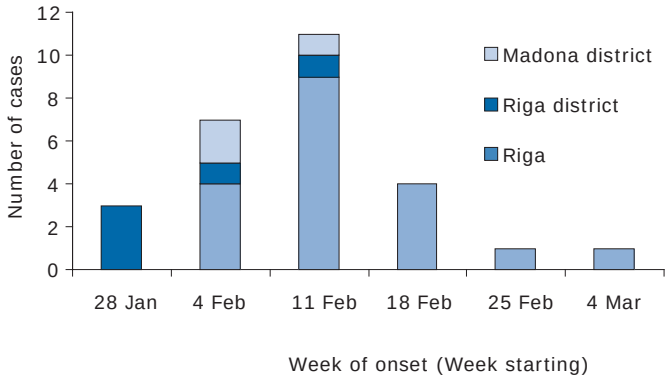
Between January and March 2005, 45 trichinellosis cases were notified to the Public Health Agency (PHA) of Latvia. This represents a 246% increase on the same period in 2004, and involved 42 patients in three outbreaks, and three sporadic cases.

The largest of these outbreaks affected 27 patients and occurred between 28 February and 14 March. Cases occurred in three administrative territories (Riga, the capital of Latvia, the district around Riga, and the Madona district). Epidemiological analysis linked the infection to eating salted streaky bacon bought at Riga central market. Of the 27 patients, 18 were female and 9 were male. The average age of the patients was 41 (range: 13 – 60).

The main symptoms were weakness, nausea, facial oedema (more then half of the cases) and fever – in more than in half the cases, the body temperature exceeded 38°C. All the patients were admitted to hospital. The incubation period ranged between two and four weeks.

Figure 1

Patients in the 2005 Riga outbreak of trichinellosis, by onset of illness and place of residence



The Latvian Food and Veterinary Service (FVS) collected 37 meat samples from retail outlets identified in the investigation, and all tested negative for trichinella larvae. One retail outlet was found to be selling pork of unknown origin which came with falsified delivery notes,so the pork had not been tested for *Trichinella spiralis* in government-supervised inspections. The descriptive epidemiology of those who were ill strongly implicated this streaky bacon as the vehicle for infection. A case-control study was not carried out. It was not possible to confirm that the trichinellosis outbreak was caused by the bacon, as none was available for testing.

Trichinellosis situation in humans

Trichinellosis in both humans and animals is a mandatorily notifiable disease in Latvia, and sporadic cases must be registered and reported. All outbreaks are required to be reported. Since 2002, there has been a European case definition for reporting trichinellosis [1]. The laboratory diagnosis is by testing blood serum for antibodies to *Trichinella spiralis*.

Epidemiologists from the Public Health Agency investigate each case notified by a physician. The PHA, in collaboration with the Food and Veterinary Service (FVS), check the producers of implicated foods if there is reasonable suspicion that a business may be connected with the case. In cases of human trichinellosis due to consumption of animal products or when the *T. spiralis* parasite is found in animal products and there is a potential risk of human infection, the PHA and FVS cooperate in exchanging information.

In the past seven years (1998-2004), 247 cases have been reported in Latvia. Annual case numbers peaked in 2000 with 91 cases, which included four outbreaks involving a total of 77 cases.

In the period 2001-2004, the number of cases reported annually has remained steady (range: 20 – 24), with an incidence of between 0.7 and 1 case per 100 000 inhabitants.In the last five years, cases of trichinellosis have been identified in all the age groups above 1 year old.

Figure 2

Human trichinellosis cases in Latvia, 1998-2004