

LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Wed, 10 Dec 2003 17:29:13 +0800

From: Denis Green <[snoigel@hotmail.com](mailto:snoigel@hotmail.com)>

Source: Le Monde 10 Dec 2003 [translated by contributor; edited]

<<http://www.lemonde.fr/web/article/0,1-0@2-3226,36-345229,0.html>>

Legionellosis progresses in Pas-de-Calais

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The area of Lens, in Pas-de-Calais [in the north of France], has been the location for an outbreak of legionellosis, a pulmonary infection. On the whole, 12 people living in a radius of less than 10 km around Lens were infected since the end of Nov 2003. 2 people succumbed to this infection, whose source is not yet known: a 79-year-old man who lived in Harnes, close to Lens, died on 30 Nov 2003 and another man, 53 years old, from Lens the following day.

The last case to date was reported by the departmental direction of medical and social businesses (DDASS) is a 73-year-old woman of Fouquieres-les- Lens, who was admitted on 4 Dec 2003 to the hospital complex in Lens. Legionellosis is very [easily] treated by antibiotics and cannot be transmitted between human, [a DDASS representative] explained.

DDASS is undertaking systematic research in the communes concerned, not only in the patients' residences. The regional direction of industry, research, and the environment (DRIRE) is also investigating all public establishments and areas designated for environmental protection.

"We have so far inspected and taken readings in approximately 15 sites. In the Noroxo petrochemical factory, preliminary results detected the presence of legionella without, however, enabling us to identify this factory as the source of the epidemic," explained Guillaume Panie, chief of the Environmental Service in Drire.

In this factory, which employs 250 people (none of whom were affected), production was stopped at the end of Nov 2003 and the coolant circuits cleaned. "In each location where risk is suspected we carry out a 'chemical shock,' i.e., cleaning with chlorine, which kills the bacteria -- after having taken samples for analysis", explained Mr. Panie.

For the prefecture of Pas-de-Calais, these preventive measures should make it possible to limit the risk of contamination and perhaps even to stop the epidemic -- without ever definitively identifying its source.

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LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS) (02)

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A ProMED-mail post

<<http://www.promedmail.org>>

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[1]

Date: Sat, 20 Dec 2003 16:20:16 +0800

From: Denis Green <[snoigel@hotmail.com](mailto:snoigel@hotmail.com)>

Source: Bouygues Telecom (translated by submitter) [edited]

<<http://www.6sens.bouyguetelecom.fr/news/sciences/0,,1486926-VU5WX0IEIDYx,00.html>>

29 cases of legionellosis close to Lens

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4 new cases of legionellosis were reported on Fri, 19 Dec 2003 in Pas-de-Calais, where the epidemic whose origin remains unknown has affected 29 people overall, 3 of whom have died, announced the prefecture in an official statement.

The 4 new patients infected by this potentially serious pulmonary infection are men living in the area of Lens, age respectively 52 years (Bethune), 71 years (Noyelles-on-Lens), 76 years (Lens) and 78 years (Annay-on-Lens). 3 of them are hospitalized in Lens and Henin-Beaumont and the other, who was never hospitalized, is at home. 1 of the patients became ill on 5 Dec 2003, another 9 Dec, and the other 2 on 15 Dec. Among the 29 people infected, all in an area of less than 10 kilometers around Lens, 3 died and 14 remain hospitalized in Lens, Henin-Beaumont, and Bethune.

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[2]

Date: Thu, 18 Dec 2003

From: ProMED-mail [promed@promedmail.org](mailto:promed@promedmail.org)

Source: Eurosurveillance 18 Dec 2003 [edited]

<<http://www.eurosurveillance.org/ew/2003/031218.asp#5>>

Cluster of legionnaires' disease cases in northern France

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An outbreak involving 24 cases of legionnaires' disease has been reported in northern France (the Nord Pas de Calais) since 28 Nov 2003.

All patients have been admitted to hospital. 19 of the patients are men (79 percent). The patients' ages range from 44 to 87 years (mean age 71 years). Onset of symptoms for all cases is between 10 Nov and 12 Dec 2003. 3 patients have died. The diagnosis of legionnaires' disease has been confirmed for all cases by the detection of urinary antigen. Clinical isolates have also been obtained from 3 patients, and these have been sent to the Centre National de Reference (CNR) des Legionella (national reference centre for Legionella).

The epidemiological investigation is being carried out by the local health authorities, with support from the Institut de Veille Sanitaire (<<http://www.invs.sante.fr>>). All patients were asked to complete a questionnaire giving details of their habits and their movements in the 10 days preceding the appearance of symptoms, (maximum incubation period for legionnaires' disease is 10 days). According to information gathered, most of the patients were resident in or visited an area to the east of the town of Lens (Harnes and neighboring communes). This information suggests a common local source, such as a cooling tower or the like.

The environmental investigation is underway, and control measures have already been taken at sites that pose a possible risk (disinfection of cooling systems). A factory in Harnes is under suspicion after environmental samples revealed levels of Legionella, and it was closed on 3 Dec 2003 for disinfection of the cooling system and its cooling tower. The other sites that might pose a risk have been inspected, and all environmental samples have been sent to the Legionella CNR for analysis. Additionally, the local health authorities, in collaboration with the local town councils, are compiling a register of all sites posing a possible risk. Comparison of clinical and environmental samples is underway and will allow investigators to determine whether one of the potential sites identified is the source of contamination.

[Authors: Christine Campese (<[c.campese@invs.sante.fr](mailto:c.campese@invs.sante.fr)>) and Didier Che, on behalf of the investigation team\*.]

\* S. Haeghebaert, F. Ganiayre, D. Ilef, Cellule Inter-Regionale d'Epidemiologie-Nord; M. Therouanne, C. Guitard, T. Brigaud, Direction Departementale des Affaires Sanitaires et Sociales, Pas-de-Calais; and C. Campese, D. Che: Institut de Veille Sanitaire, Saint-Maurice, France.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

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Date: Fri, 26 Dec 2003 21:18:52 -0500 (EST)  
From: ProMED-mail <[promed@promed.isid.harvard.edu](mailto:promed@promed.isid.harvard.edu)>  
Subject: PRO/EDR> Legionellosis - France (Pas-de Calais) (03)  
LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS) (03)  
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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: Thu 25 Dec 2003

From: Denis Green <[snoigel@hotmail.com](mailto:snoigel@hotmail.com)>

Source: Liberation.fr, Wed 24 Dec 2003 (translated by submitter) [edited]

<<http://www.liberation.com/page.php?Article=167582>>

Three new cases of legionellosis in Pas-de-Calais

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3 new cases of legionellosis were reported Wednesday by the prefecture of Pas-de-Calais, bringing to 38 the number of people involved in the epidemic since 28 Nov 2003.

The 3 newly listed people are 2 men and a woman 58 to 73 years old. They lived in Wingles, Noyelles-sous-Lens, and Annay-sous-Lens, 3 communities already involved in the epidemic. Of the 38 cases now listed, 4 died, 16 went home, and 18 are hospitalized in Lens and Henin-Beaumont.

Tuesday, the director of the medical and social Businesses (DDASS) and the director of the industry of research and environment (DRIRE) revealed the first results of an analysis tracking the origin of the epidemic. This analysis shows that the strain of bacterium found in 2 patients was also found in the factory Noroxo d'Harnes.

The Noroxo factory in Harnes employs 150 workers, as well as 100 people working on the premises for other employers. It manufactures alcohols and acids used in the clothing industry and for cosmetics, oils, and detergents.

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[2]

Date: Thu 25 Dec 2003

From: Denis Green <[snoigel@hotmail.com](mailto:snoigel@hotmail.com)>

Source: Departement du Pas-de-Calais, Wed 24 Dec 2003 (translated by submitter) [edited]

<[http://www.invs.sante.fr/display/?doc=presse/2003/le\\_point\\_sur/legionellose\\_241203](http://www.invs.sante.fr/display/?doc=presse/2003/le_point_sur/legionellose_241203)>

Grouped cases of legionellosis in the district of Lens

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37 cases of legionellosis have been reported to DDASS of Pas-de-Calais since 28 Nov 2003. All the patients were hospitalized. 78 percent are male; average age is 69 years. Clinical signs began between 10 Nov and 20 Dec 2003. 4 people have died thus far. The diagnosis of legionellosis has been confirmed for all the cases by the detection of soluble antigen in urinary tests. CNR has so far studied the strains from 2 patients. The 2 strains have the same genomic profile. For 4 other patients, the clinical strains are being analysed at CNR.

The epidemiologic investigation is being carried out by the interregional Cell of Northern epidemiology, and DDASS Pas-de-Calais, with the support of InVS. 36 patients were

questioned to date as to their lifestyle and movements in the 10 days preceding the onset of disease -- the maximum duration of incubation of legionellosis being 10 days.

According to the information collected, the majority of the patients resided or had been in an area in the east of the town of Lens neighboring Harnes and its communes, suggesting a common source of contamination.

The environmental investigation is led by DRIRE and DDASS, and control measures were taken near the identified installations (disinfection of the cooling towers). 2 factories were suspected in Harnes and Loison, following [studies revealing] high levels of Legionella. The factory of Harnes was closed on 3 Dec 2003 to allow disinfection of the cooling system of its TAR. The factory of Loison carried out additional chemical processes to fight against the development of Legionella. [Specimens from] these 2 factories and the other suspected installations were transmitted to CNR for analysis. In addition, a search for Legionella was carried out in the residences of 19 patients; a low-level positive was obtained at only one residence, which indicates that a source of contamination in the residence of the patients cannot be implicated as the cause of this epidemic.

The strains isolated from the suspected factory in Harnes had the same genomic profile as the strains isolated from 2 patients. This factory is thus most likely the source of contamination for these 2 patients and probably for a significant proportion of the other patients.

The comparison of the strains already isolated with the clinical strains being analysed and the strains isolated from the other installations at risk, in particular the factory in Loison, will make it possible to confirm or negate the assumption of a single source of contamination.

The persistence of several cases more than 10 days after the closing of the TAR of the factory in Harnes (8 cases after 13 Dec 2003) and the shape of the epidemic curve suggest that another infection source could exist, in particular another contaminated TAR, which would have continued its activity after 3 Dec 2003. Although usually from 1 to 10 days, the incubation period can sometimes reach 14 days or more. That could explain several cases related to the TAR of the Harnes factory after 13 Dec 2003.

Continuous monitoring is important to identify and treat the new patients early, which reduces the risk of fatality.

Denis Green <snoigel@hotmail.com>

LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS) (04)

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A ProMED-mail post <<http://www.promedmail.org>>

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<<http://www.isid.org>>

Date: Mon, 29 Dec 2003

From: Denis Green <snoigel@hotmail.com>

Source: Le Monde.fr 27 Dec 2003 (translated by submitter) [edited]  
<<http://www.lemonde.fr/web/article/0,1-0@2-3226,36-347309,0.html>>

4 new cases of legionellosis were announced Sat, 27 Dec 2003, by the prefecture of Pas-de-Calais, bringing the number of patients with this serious pulmonary infection to 42, including 4 deaths, since the end of November 2003.

The 4 new people infected are 2 elderly men of 88 and 83 years living in Henin-Beaumont and in Montigny-in-Gohelle, respectively, and 2 women 72 and 81 years old, living in Henin-Beaumont and Fouquieres-les-Lens. These patients showed the first symptoms of the infection (the usual time of incubation varies from 2-10 days) between the 20 and 23 Dec 2003. They were hospitalized in the hospital complex of Lens and the polyclinic of Henin- Beaumont.

Denis Green <snoigel@hotmail.com>

[So far, the source (or sources) of this outbreak is not entirely clear. - Mod. LL]

#### LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS) (05)

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A ProMED-mail post <<http://www.promedmail.org>>

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<<http://www.isid.org>>

Date: Tue, 30 Dec 2003

From: Denis Green <snoigel@hotmail.com>

Source: Yahoo.com (translation by submitter) [edited]

<<http://fr.news.yahoo.com/031230/202/3klc1.html>>

5th death due to legionellosis in Pas-de-Calais

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A 5th person has died of legionellosis in Pas-de-Calais, and 6 new cases were announced by the prefecture on Mon 29 Dec 2003, which changes to 48 the number of patients in the area affected by this serious pulmonary infection since the end of November 2003.

The new victim is a 69-year-old woman, who died in Henin-Beaumont, announced prefect Cyrille Schott during a press conference. Mr. Schott called the epidemic "an exceptionally serious situation and a cause for concern."

The authorities now postulate the existence of a 2nd possible source of contamination. Until now, only the petrochemical factory Noroxo de Harnes (Pas-de-Calais) was formally identified [as a source]. According to Dr. Daniele Iles of the Interregional Epidemiology Cell, "the agreement in time and space make us think that a great number of cases, from 20 to 25 currently, are related to the Noroxo source."

However, 8 cases reported between 20-25 Dec 2003 "seem more difficult to relate to this source" (Noroxo), according to Dr. Iles, "because the last cases appeared 22 days after the closure of the contaminant source," and the incubation time of legionellosis is only 1-10 days.

According to the prefecture, there seem to have been 2 different waves. The 1st wave, of which the Noroxo factory is the likely source, was localized around Harnes. The 2nd involved the area of Henin-Beaumont, where 4 of the new cases were identified.

A prefectural decree requires the companies named to perform weekly analyses, the results of which will be available in the next few days.

Among the 48 cases reported since the end of November 2003, 16 women and 32 men were affected. 21 people are still hospitalized, and 22 have improved [and been released?].

Denis Green <snoigel@hotmail.com>

[Just in from Denis is an update from the French newspaper Le Figaro online of 31 Dec 2003 <[www.lefigaro.fr/sciences/20031231.FIG0170.html](http://www.lefigaro.fr/sciences/20031231.FIG0170.html)>. With the addition of 2 new cases, in women aged 75 & 92 years, and a death, the total is now 50 cases including 6 deaths since 10 Nov 2003, and this legionellosis epidemic is now the largest ever recorded in France. - Mod.JW]

Date: Mon, 5 Jan 2004 00:27:10 -0500 (EST)  
From: ProMED-mail <[promed@promed.isid.harvard.edu](mailto:promed@promed.isid.harvard.edu)>  
Subject: PRO/EDR> Legionellosis - France (Pas-de-Calais)  
LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS)

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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: 3 Jan 2004

From: Denis Green <[snoigel@hotmail.com](mailto:snoigel@hotmail.com)>

Source: Cario.fr 3 Jan 2004 [in French, summarized by Mod.JW] [edited]  
<<http://np.sudmed.cario.fr/news/sciences/0,,1540846-VU5WX0IEIDM4,00.html>>

A 7th death and a new case were announced Sat, 3 Jan 2004, in the area of Lens. The Noroxo factory, already closed for decontamination during December 2003, will undergo a new cleaning.

The 7th death, on Fri evening, 2 Jan 2004, was an 85-year-old woman, and the new case is a 91-year-old man residing at Harnes. The total number of patients is now 55.

After cleaning the Noroxo plant from 3-20 Dec 2003, analyses carried out on 22 and 29 Dec 2003 were negative for Legionella. However, results of 3 provisional analyses on patients of the 2nd wave of legionellosis, starting in mid-December 2003, relate them to

the factory. The assumption of a 2nd source of contamination remains, because if the petrochemical factory were also the origin of the 2nd wave, the incubation period of the bacterium would have to be exceptionally long.

Denis Green [snoigel@hotmail.com](mailto:snoigel@hotmail.com)

#### LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS) (02)

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A ProMED-mail post <<http://www.promedmail.org>>

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<<http://www.isid.org>>

Date: Tue, 13 Jan 2004 13:00:53 +0000

From: Pablo Nart <[p.nart@ntlworld.com](mailto:p.nart@ntlworld.com)>

Source Yahoo news, 12 Jan 2004 [edited]

<[http://story.news.yahoo.com/news?tmpl=story&u=/afp/20040112/hl\\_afp/france\\_health\\_040112204222](http://story.news.yahoo.com/news?tmpl=story&u=/afp/20040112/hl_afp/france_health_040112204222)>

Death toll from Legionnaires' outbreak in France up to 9

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Cyrille Schott, the prefect for the Pas-de-Calais department, insisted the new cases did not represent a new wave of legionnaires' infections, saying the most recent cases "all stem from the 1st and 2nd waves." French officials have called the outbreak in the area around the town of Lens one of the most serious ever seen in France.

The cooling tower at the Noroxo petrochemicals plant in nearby Harnes was identified as the primary source of contamination, but officials have singled out a possible second source in Henin-Beaumont to the east. The Noroxo plant has been closed twice since the start of the outbreak. Noroxo is part of the Exxon Mobil group, the world's biggest oil company.

Of the 69 people who have contracted legionnaires' disease in France, 9 have died, 20 are still in hospital, and 40 others have returned home.

Pablo Nart <[p.nart@ntlworld.com](mailto:p.nart@ntlworld.com)>

[Since ProMED-mail's last posting on 5 Jan 2004, the total number of cases has risen to 69 from 55 and the number of deaths from 7 to 9. - Mod.LL]

#### LEGIONELLOSIS - FRANCE (PAS-DE-CALAIS) (03)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Fri, 16 Apr 2004

From: John Herbert <[j\\_a\\_herbert@yahoo.com](mailto:j_a_herbert@yahoo.com)>

Source: Liberation.fr [translation by submitter; edited]

<<http://www.liberation.fr/page.php?Article=197282>>

## Legionella causes 17 deaths in Pas-de-Calais

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The legionellosis epidemic, which struck Pas-de-Calais (France) and affected a total of 86 people and caused 17 deaths, was confirmed by the prefecture of the department. "17 people died, 3 are still hospitalized, and 66 recovered", specified the official statement of the prefecture.

The previous assessment, published by the authorities, reported 13 deaths. The new results from the National Center of Reference obliged authorities to include the 4 new fatalities.

The Noroxo factory situated in Harnes was identified only source of the epidemic of Legionella [infection] which struck the department between Nov 2003 and Jan 2004.

Comments of submitter: This new report fails to clarify whether or not the additional fatalities contracted the same strain that was previously identified with the Noroxo Cooling Towers and the waste water treatment plant. If not related, it is noted that only 23 cases [1] representing a mere 26.7 percent were positively matched to the strain found in the Noxoro factory. The balance (the majority, 63 cases) were not linked. This outbreak was particularly unusual because it occurred during the winter months and covered a wide geographic area [2].

1.<[http://www.invs.sante.fr/presse/2004/le\\_point\\_sur/legionellose\\_260204/indexhtml](http://www.invs.sante.fr/presse/2004/le_point_sur/legionellose_260204/indexhtml)>

2.<[http://www.invs.sante.fr/presse/2004/le\\_point\\_sur/legionellose\\_130204/distrib\\_legio\\_130204.pdf](http://www.invs.sante.fr/presse/2004/le_point_sur/legionellose_130204/distrib_legio_130204.pdf)>

John Herbert

Hong Kong

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[see also:

Legionellosis - Italy (Basilicata) (02): background 20040408.0957 Legionellosis - Italy (Basilicata) 20040408.0950 Legionellosis, spa - Austria (Upper Austria) 20040331.0881 Legionellosis, hotel - USA (TX ex OK)(02): background 20040324.0823 Legionellosis, hotel - USA (TX ex OK)20040323.0813 Legionellosis - France (Pas de Calais) (02) 20040115.0166 Legionellosis - France (Pas-de-Calais) 20040105.0038 Legionellosis, potting soil - New Zealand 2003 (02): background 20040104.0033 Legionellosis, potting soil - New Zealand 2003 20040102.0014 2003

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Legionellosis - France (Pas-de-Calais) (05) 20031231.3179 Legionellosis - France (Pas-de-Calais) (04) 20031229.3161 Legionellosis - France (Pas-de Calais) (03) 20031226.3134 Legionellosis - France (Pas-de-Calais) (02) 20031222.3111 Legionellosis - France (Pas-de-Calais) 20031210.3029 Legionellosis - UK (West Midlands) (03) 20031126.2925 Legionellosis - UK (West Midlands) 20031109.2778 Legionellosis update 2003 (01) 20030904.2222 Legionellosis, cruise ship - Germany (Saxony-Anhalt) 20030828.2174 Legionellosis - Europe (France, Norway) (02) 20030818.2074 Legionellosis - Europe (France, Norway) 20030812.1990]

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