## Measles outbreak in Germany: over 1000 cases now reported in Nordrhein Westfalen

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The reported number of measles cases linked to the current outbreak in the federal state (Land) of Nordrhein Westfalen, in the west of Germany, has now risen to over 1000 [1]. Between 1 January and 3 May 2006, 1018 cases were notified to the health authorities, and this number is believed to be an underestimate, as some cases are not notified, or are not diagnosed.

In recent weeks, the number of notified measles cases has been stable at around 120-140 cases per week. No significant decrease has yet been observed during the school holidays. Particularly efficient transmission has been noted in the Nordrhein region, where 56 cases of measles per 100000 inhabitants have been reported in the city of Duisburg, 33 per 100000 inhabitants in the district of Wesel and 53 per 100000 inhabitants in the district of Mönchengladbach.

## Age distribution

School-age children are still the main group affected, representing over $60 \%$ of all reported cases. There have been 252 cases reported in children aged 10-14 years, 198 cases reported in children aged 1519, and 186 cases reported in children aged 5-9. Sixty four cases in children under one year old have also been reported (Figure).

## Fig Gere.

Age distribution of reported measles cases in Nordrhein Westfalen, 1 January - 3 May 2006. N=1018.


## Vaccination status

The majority of patients have not been vaccinated against measles. According to current data, only 25 patients (2.5\%) had received a full course of vaccination against measles ( 2 doses of measles, mumps and rubella (MMR) vaccine).

## Complications

About $15 \%$ of the patients required hospital admission. Two cases with serious complications (measles encephalitis) have been reported. Other reported complications include 20 cases of lung infection and 17 middle-ear infections.

## Laboratory diagnostics

About one third of cases have been laboratory confirmed by detection of virus-specific antibodies or by PCR. As has already been reported, the outbreak in Nordrhein Westfalen is caused by the D6 measles virus, which is the same strain that is currently causing a large outbreak in the Ukraine [2]. It is not yet known whether there is any link between cases in the two countries. The D4 strain of the virus has been found in samples from two patients, suggesting that there are at least two parallel infection chains in Nordrhein Westfalen.

## Current control measures

The Nordrhein Westfalen state public health authority are keeping all local health authorities informed of the situation, and are urging actions to increase vaccination coverage in areas where it is low. All local authorities have been supplied with information for distribution to schools, nurseries, parents and doctors. Questionnaires for use when notifying cases have also been supplied. It has been recommended that patients or their parents/guardians are interviewed to establish the patients' likely infection source.

## Further recommendations include:

- Implementation of vaccination campaigns: checking of vaccination status of all members of the public, and vaccination offered to those found to be unprotected. Healthcare workers within local communities are being encouraged to offer prophylactic vaccination to all patient contacts.
- Local authorities should contact all schools and nurseries within the affected areas, and distribute information to all teachers, parents, nurseries and pupils.
- 14-day isolation of susceptible members of a household of a measles patient from community settings, with re-introduction after post-exposure vaccination.
- Avoidance of contact with patients with confirmed measles outside the household.
- Informing the local media of the outbreak situation.
- Submitting samples from measles testing to the healthauthorities for testing.
At the invitation of the Nordrhein Westfalen authorities, the Robert Koch-Institut in Berlin has assisted with interviewing 1200 people and determining the vaccination status at a school in Duisburg where there were 37 patients. Current studies aim to determine the contribution of areas of low coverage to the outbreak and vaccination records are being studied. All patients whose records show that they are not protected will receive an information leaflet provided by the Deutsches Grünes Kreuz e.V. (DGK, http://www.dgk.de).

The Nordrhein Westfalen state health authorities are also carrying out a telephone survey of all known patients in Duisburg. This survey will provide data needed to compile comprehensive information on the extent of the outbreak, illness length, possible infection sources and transmission routes.

This article was translated and adapted from reference 1 by the Eurosurveillance editorial team.

## References:

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