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Abstract (poster session)

**Surveillance of measles outbreaks in Veneto region, Italy, November 2010-October 2011**

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**Objectives:** An enhanced surveillance programme was activated in Veneto Region since October 2010 to improve case investigation and laboratory confirmation of diagnosis. **Methods:** For each suspected measles case, the local health authorities carried out epidemiological investigation and obtained specimens for laboratory confirmation and genotyping. Confirmed cases were notified to regional and national health authorities. In our regional reference lab, real-time RT-PCR was used to detect measles RNA from throat swabs and/or urine specimens. As recommended by the WHO, strains were genotyped by viral nucleoprotein sequencing. **Results:** Out of a total of 185 possible cases reported in Veneto Region during the surveillance period, 105 (56.7%) were classified as laboratory-confirmed. Two incidence peaks of confirmed cases occurred in December 2010 and in April 2011, followed by a progressive decrease and no case reported in August-October 2011. All provinces of Veneto Region were involved, but incidence varied among municipalities. Children younger than 1 year and young adults aged 20-35 years were the most affected age groups. Overall, 70% of cases were unvaccinated, 8% had received only one dose of vaccine, 2% had received two doses, while information on vaccination was unavailable for 20% of cases. Measles virus was genotyped in all confirmed cases and D4G4 (53%), D8 (45%), and D4G3 (1%) genotypes were identified. D4G4 circulated in all Veneto Region until February 2011, when it was replaced by D8 genotype, which circulated in central and southern provinces. A new genetic cluster of D4G4 genotype appeared in April 2011, with a peak of cases in May 2011. Measles subtyping by sequencing the whole haemoagglutinating gene identified temporarily and geographically-related measles clusters. One case of D4G3 genotype was imported from France and one case of Edmonston A vaccine genotype was isolated in a recently vaccinated subject. **Conclusions:** Like other Italian Regions and countries in the WHO European Region, Veneto Region did not meet the 2010 elimination target. An enhanced surveillance programme led to the identification of several measles cases in 2010 and 2011 and the determination of their circulation in the regional territory. Unvaccinated children and young adults were the most affected age groups, indicating the need to strengthen interventions to increase vaccination coverage.