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## BELGIAN LABORATORY SURVEILLANCE OF HUMAN ALVEOLAR AND CYSTIC ECHINOCOCCOSIS IN 2021

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**Background:** Alveolar echinococcosis (AE) and cystic echinococcosis (CE), caused respectively by *Echinococcus multilocularis* and *Echinococcus granulosus complex*, are severe parasitic zoonoses which are potentially fatal for humans. While echinococcosis ranked among rare diseases in Belgium, an increasing incidence has been observed over the last two decades, in particular for AE. In order to describe the Belgian epidemiology, the National Reference Laboratory for echinococcosis (BNRLE) conducted a surveillance of AE and CE cases diagnosed in Belgium in 2021.

**Methods:** All Belgian clinical laboratories were asked to fill an epidemiological form including AE and CE cases detected in 2021. All cases diagnosed by serology and/or PCR (confirmed cases) or without microbiological confirmation (probable and possible cases) were included.

**Results:** In 2021, 17 new cases were detected throughout Belgium, including 7 AE and 10 CE. Three patients were not Belgian residents (2 AE from Luxembourg, 1 CE from the Netherlands). Among the 7 AE cases, sex ratio (male:female) was 3:4, the median age was 65 years, and the place of residence was restricted to Wallonia. CE cases were not restricted

to a specific region. Unlike the alveolar form, CE occurred in a younger population (median age 43 years) and the sex ratio was 8:2. All CE cases were imported from endemic areas such as Turkey (4/10), Morocco (3/10), Bulgaria (1/10), Romania (1/10) and Middle Eastern countries (1/10). All cases were confirmed by serology and/or PCR except 4 CE cases for which the diagnostic methods were not specified.

**Conclusions:** Because few laboratories perform diagnostic tests and few institutions are experienced in the clinical management, echinococcosis is probably underestimated in Belgium. Therefore, it is necessary to raise awareness among clinicians about the existence of these diseases in the country and to inform the population about the risk factors.