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# Update on assessment of risk of introduction of *Echinococcus multilocularis* to mainland Norway

## Background

*Echinococcus multilocularis* (EM) is of public health significance as humans may act as accidental intermediate hosts if they ingest eggs, either through contaminated foods or water, or from contact with infected final hosts (dogs, foxes) or their faeces. In untreated patients the disease is often fatal (10-year survival rate of 29 %), and in treated patients the 10-year survival rate is 80 %. The anthelmintic treatment is long-term (for several years, in some cases life-long) and expensive. Liver transplantation may be required.

VKM published an assessment of EM in 2012. The findings of the assessment indicated that Norway could expect the parasite to spread from southern Sweden and it may be necessary to update the assessment to get an overview of the need for handling. Therefore, the Panel on Biological Hazards takes the initiative to update the risk assessment regarding the probability of introduction and establishment of EM to mainland Norway and its significance to human health.

## Terms of reference

The Panel for Biological Hazards of the Norwegian Scientific Committee for Food and Environment has decided on the following terms of reference:

### Phase I

1. Critical review of the previous report
  - 1.1. Assess whether the assumptions, models and conclusions from the previous report are still valid
  - 1.2. Conclude on the need for the new assessment
    - 1.2.1. Finalise the terms of reference for phase II

### Phase II

1. To assess the probability of introduction of EM to mainland Norway via movement of dogs from:
    - 1.1. Sweden (pets, that have/have not undergone the anthelmintic treatment prior to entry)
    - 1.2. Other countries
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### 1.3. Svalbard

2. To assess the probability of introduction of EM to mainland Norway via movement of infected wildlife:
    - 2.1. Relevant intermediate hosts, predominantly small mammals, from Sweden
    - 2.2. Foxes and other wild canids from Sweden
    - 2.3. Relevant intermediate hosts, predominantly small mammals, from regions where EM is endemic
    - 2.4. Foxes from regions where EM is endemic
  3. To assess the probability of detection under current monitoring conditions if EM is introduced into mainland Norway
  4. To assess:
    - 4.1. The effectiveness and efficiency of applicable disease control options
    - 4.2. The risk of EM becoming endemic in mainland Norway
    - 4.3. The risk for human health
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