



REGIONAL MANAGEMENT OF HEPATITIS A OUTBREAK AND RISK-BASED CONTROL OF BIVALVE MOLLUSCS IN CAMPANIA (ITALY)

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Aim. In early 2026, the Campania Region experienced a significant increase in reported cases of hepatitis A, particularly within the metropolitan area of Naples. Epidemiological investigations rapidly identified a potential association between the outbreak and the consumption of shellfish consistent with findings from the regional hepatitis A outbreak of 2015. This study aimed to describe the public health response to the hepatitis A virus (HAV) outbreak in the Campania Region.

Methods. The regional response integrated epidemiological surveillance, traceability investigations, environmental monitoring and extensive virological testing: in February 2026 an extraordinary regional monitoring programme was initiated, targeting all classified regional shellfish production areas as well as batches originating from other Italian regions and European Union countries. Concurrently, official controls and targeted epidemiological investigations detected HAV in retail shellfish and subsequently in dispatch centres. The detection of HAV in shellfish prompted the immediate harvesting bans in the affected production areas and activation of notifications through the Rapid Alert System for Food and Feed. Although the majority of monitored production areas remained HAV-negative, repeated detection of HAV in specific areas and relayed shellfish batches supported the hypothesis that mussel played a significant role in sustaining viral circulation. Traceability investigations linked several contaminated batches to the Lago Fusaro production area, a site extensively used for mussel fattening.

Results. Intensive virological testing of 57 mussel batches held in Lago Fusaro identified seven HAV-positive lots including batches originating both from Italian and other EU

production areas. A major management challenge arose when approximately 3,000 quintals of mussels remained under movement restrictions within Lago Fusaro. Seasonal environmental conditions as increasing water temperature, reduced dissolved oxygen and limited water exchange posed a substantial risk of mass shellfish mortality with potentially severe environmental and economic outcomes. To mitigate these risks, the Regional Authorities implemented an ad hoc risk-management measure allowing the transfer, under official veterinary supervision, of mussels from Lago Fusaro to the already restricted harvesting area of Punta Cavallo. This intervention was supported by enhanced traceability systems, strict batch segregation, specific monitoring plans and the maintenance of harvesting bans. The experience gained during the 2026 outbreak led to a comprehensive revision of the regional HAV management procedure. The updated protocol introduces a phased management framework based on virological evidence, environmental risk assessment, predictive modelling and graduated control measures establishing criteria for harvesting restrictions, monitoring and managing production areas, lifting harvesting bans and authorizing shellfish transfers.

Conclusions. The 2026 hepatitis A outbreak in Campania highlighted the importance of integrating epidemiological surveillance, virological monitoring, traceability controls and environmental assessment to enable the rapid identification of contaminated shellfish batches, the timely implementation of targeted harvesting restrictions and the development of management strategies for shellfish movements. The revised regional procedure provides a structured evidence-based and precautionary framework for HAV risk management and may serve as a valuable model for other regions facing similar viral outbreaks.