

# Unexpected outcome following the inhalation of *bacillus thuringiensis*. A case report.

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## Objective

To present a call received by the Belgian Poison centre (BPC) regarding Xentari wg<sup>®</sup>, a water-dispersible insecticide containing *bacillus thuringiensis* (Aizawai).

## Case report

The BPC was contacted by a professional gardener who had accidentally inhaled a finely dispersed (80µm) solution of Xentari wg<sup>®</sup> while working. The man had used a large mobile vaporiser to treat oak trees infested with the oak processionary caterpillar without any personal protective equipment. The weather was windy and regularly pushed vapors in his direction. He did not feel any immediate irritation and so he continued working. In the evening, a cough and respiratory tract irritation started and worsened during the night. The next morning, he first called his general practitioner and then contacted the BPC by phone. During the call, the patient mentioned a respiratory tract irritation and a pronounced cough. At the end of the call, the BPC advised him to consult a physician.

A follow-up call by a specialized and experienced staff member of the BPC was performed 1 month later. The patient was immediately sent to the hospital by his general practitioner after auscultation. There, it was confirmed that the severe cough resulted in a collapsed lung, for which a surgical intervention was needed the same day. The patient fully recovered.

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## Conclusion

Although inhalational exposures to *bacillus thuringiensis* are known to give mostly minor upper respiratory tract irritation<sup>1,2</sup>, this case shows a different outcome. It should be noted that a key factor here was the exposure to the finely dispersed solution without any protective measures. It shows that the basic toxicity of a product can be enhanced by various causes. Formulation and way of exposure are important factors that should be considered, even in cases of supposedly benign exposure.

## References

<sup>1</sup> *Bacillus thuringiensis*. In: IBM Micromedex<sup>®</sup> POISINDEX<sup>®</sup> (electronic version). IBM Watson Health, Greenwood Village, Colorado, USA. Available at: <https://www.micromedexsolutions.com/> (cited: 11/01/2021).

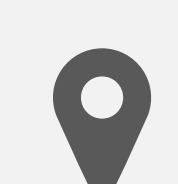
<sup>2</sup> *Bacillus thuringiensis*. In: Toxinz poisons information (cited 11/01/2021)



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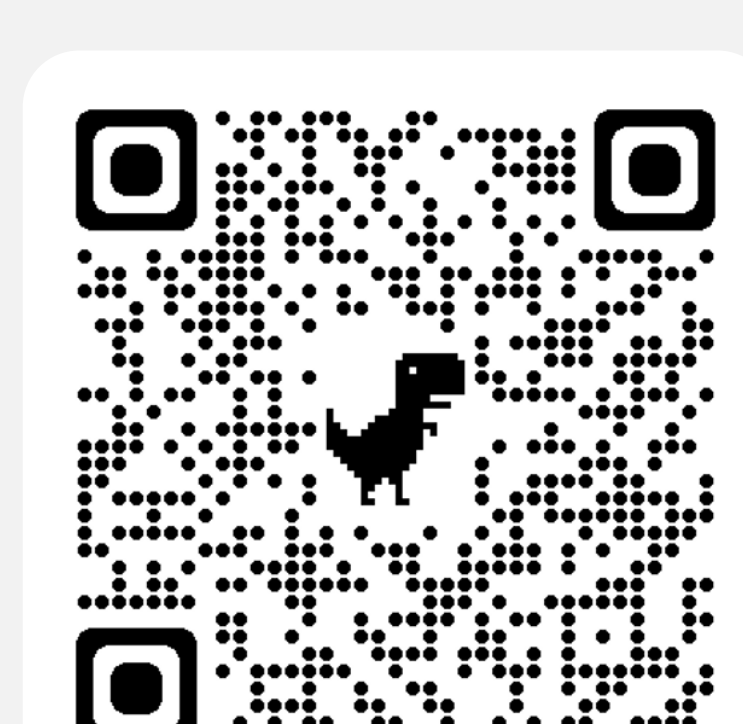
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