

## **“High dose” influenza vaccination: a step forward in the protection of seniors to be preserved. <sup>[1]</sup>**

Press release from the French National Academy of Medicine  
May 15, 2024

Influenza is a disease that affects all ages of life, but its severe forms preferentially affect people aged 65 and over, with more than 90% of deaths. Vaccination against seasonal flu, covered annually by Health Insurance from 65 years old, reduces the risk of hospitalization from all causes and mortality by around 35%. However, its effectiveness varies according to the seasons and can decline within a few months, especially among the most vulnerable elderly people [1].

To overcome the impairment of vaccine responses linked to immunosenescence, one method is to increase the doses of antigens administered in order to activate a greater number of antigen-presenting dendritic cells, leading to increased stimulation of T and B lymphocytes.

This method has been used against influenza with the high dose (HD) Efluelda® vaccine indicated, since 2020, in people aged 60 and over, and covered by Health Insurance from the age of 65. This HD vaccine is quadrivalent and contains 60 µg of hemagglutinin from each of the 4 viral strains, A/Victoria/4897/2022 (H1N1), A/Darwin/9/2021 (H3N2), B/Austria/1359417/2021 and B /Phuket/3073/2013 (Yamagata lineage). Compared to “standard dose” (SD) formulations, which contain 15 µg of haemagglutinin per viral strain, the HD formulation is as well tolerated [2], but more immunogenic in the elderly and the immunocompromised [3]. It provides an increased protection against influenza complications and reduces the risk of hospitalisation for respiratory causes among retirement home residents [4]. A meta-analysis, covering 12 influenza seasons and including more than 45 million seniors, showed that a trivalent HD vaccine protected significantly better than a trivalent SD vaccine and against hospitalizations for influenza [5].

Following a disagreement between health authorities and Sanofi laboratory on the sale price of the vaccine, the withdrawal of Efluelda® from the French market was announced on April 23, 2024 [6], with only the DS influenza vaccines now remaining available. This unfortunate announcement compromises the effectiveness of the next vaccination campaign among the elderly.

Furthermore, for the 2024-25 season, the WHO Advisory Committee recently recommended excluding the B/Yamagata lineage, which has not been circulating for 4 years, and reverting to a trivalent preparation ( A/H1N1 strain, A/H3N2 strain and B/Austria strain).

**In order not to deprive the most vulnerable people of an enhanced protection against influenza, the French National Academy of Medicine suggests that:**

- in the short term, dialogue between health authorities and Sanofi laboratory should be resumed, so that access to the HD vaccine for the most vulnerable people is safeguarded during the next vaccination campaign;
- the return to trivalent vaccines should be used to produce a trivalent HD formulation, whose effectiveness should be monitored and a fair price determined;
- this return to trivalent vaccines be implemented, in accordance with the WHO recommendation, if possible as early as the next vaccination campaign in the northern hemisphere.

**References:**

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*The contributing members declare that they have no interest in this press release.*

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[1] Press release from the Academy's Rapid Communication Platform.