

OPINION

concerning the information and recommendations to be issued with a view to preventing health risks associated with allergenic pollen

28 April 2016

Through a formal request dated 28 July 2015, the French General Directorate for Health (*Direction générale de la santé* - DGS) asked the French High Council for Public Health (*Haut Conseil de la santé publique* - HCSP) to come up with proposals for improving the prevention of health risks associated with allergenic pollen.

More specifically, the HCSP was asked to:

- 1 – make proposals regarding the information that could be provided to the general public and healthcare professionals to bring the risks of pollen to their attention and encourage visits to the doctor as well as testing and treatment for patients unaware of their pollen allergy;
- 2 – draw up health recommendations for allergy sufferers so that they can adopt behaviours enabling them to reduce their exposure to allergenic pollen and relieve their symptoms; the conditions for disseminating these recommendations will be specified based on existing information and recommendations on the subject issued by various countries and at the international level ;
- 3 – look into the feasibility of setting information and/or management thresholds for certain allergenic pollens, which may come with a series of information and/or management measurement proposals to be implemented whenever such thresholds are exceeded.

The HCSP has taken the following into consideration:

- the expert opinion report by the French National Agency for Food, Environmental and Occupational Health Safety (Anses), dated January 2014¹;
- the communication measures set up by the French aerobiology network (RNSA)², the *pollinariums sentinelles* network (garden-observatories covering the main plant species responsible for allergenic pollen)³ and certain accredited regional air quality monitoring associations;
- the work of the European Academy of Allergy and Clinical Immunology's (EAACI) task force⁴;
- action 8 "improve surveillance, forecasting and information on concentrations of allergenic mould and pollen in outdoor air" in the 3rd French National Environmental Health Plan (PNSE3)⁵;

¹ Review of knowledge on the health impact of the general population's exposure to airborne pollen. Anses opinion. Collective expert appraisal report. January 2014. <http://www.anses.fr/fr/system/files/AIR20141sa0151Ra.pdf>

² Production of a weekly *Département*-level alert map concerning the allergy risk associated with pollen exposure, national and regional bulletins, update of smartphone apps. See the RNSA's website: <http://www.pollens.fr/accueil.php>

³ Dispatch of alerts at the start and end of the pollen count season by the SI-POLLIN system to a local network of subscribers. See the website of the *pollinariums sentinelles* association (AFPS): <http://www.alertepollens.org/>

⁴ Task Force on "Definition of clinically relevant thresholds of allergen exposure for analysis of outcomes in AIT-clinical trials" (unpublished); <http://www.eaaci.org/>

- consultation of targeted stakeholders in the field about the HCSP's proposals regarding information messages for the general public and healthcare professionals as well as behavioural recommendations for limiting pollen exposure (Appendix 1);
- the information on the effects of pollen and the health recommendations issued to limit these effects, as well as the methods for disseminating this information and recommendations in selected European countries (UK, Ireland, Switzerland and Hungary);
- the HCSP opinion dated 15 November 2013 on health messages to be issued during ambient air pollution episodes⁶, along with the associated French regulatory text: the ruling of 20/08/2014 on health recommendations with a view to preventing airborne pollution health effects⁷.

For this opinion, the HCSP:

- provides answers to the following questions:
 - (a) information messages for the population and healthcare professionals (question 1),
 - (b) recommendations for allergy sufferers⁸ (first part of question 2),
 - (c) a selection of pollen thresholds and levels/concentrations which result in the dissemination 1/ of information messages among the general public and/or healthcare professionals and 2/ recommendations for allergy sufferers (question 3),
 - (d) channels for disseminating information messages among the general public and healthcare professionals (question 1) and recommendations for allergy sufferers (question 2).
- has decided that information and recommendations dissemination should be triggered when pollen thresholds are exceeded for the following four taxa⁹: grass, cypress, birch and ragweed.

There are many other taxa with allergenic pollen, to which some people may be sensitised (Appendix 2). But with data as it currently stands, it is difficult to accurately estimate the prevalence of pollen allergies in France (and even more so the prevalence of specific allergies to the pollen of a given taxon). Pollen from the four selected taxa exhibits very high allergenic potential, these species are abundant in France and allergies to such pollen types affect a wide spectrum of people¹⁰. For the most part, the prevention actions that the HCSP recommends are the same for all of taxa that produce allergenic pollen.

⁵ 3rd French National Environmental Health Plan (PNSE3) 2015-2019; <http://social-sante.gouv.fr/sante-et-environnement/les-plans-d-action-nationaux/article/le-plan-national-sante-environnement-pnse3-2015-2019>

⁶ HCSP. Health messages to be disseminated during ambient air pollution episodes by particulate matter, ozone, nitrogen dioxide and/or sulphur dioxide. Expert opinion – 15 November 2013.

⁷ Ruling of 20 August 2014 on health recommendations with a view to preventing airborne pollution health effects; Official Journal of the French Republic (JORF) no. 0201 dated 31 August 2014 page 14584; available at: <http://www.legifrance.gouv.fr/eli/arrrete/2014/8/20/AFSP1418599A/jo>;

⁸ If occurring at the same time as a peak in air pollution, refer to the HCSP opinion of 15 November 2013 and the French ruling of 20 August 2014 on health recommendations with a view to preventing airborne pollution health effects.

⁹ Definition of taxon (pl. taxa): unit (genus, family, species, subspecies, etc.) of hierarchical classifications of living organisms; term generally employed to refer to a specific (species) and subspecific (subspecies) rank.

¹⁰ The taxa were chosen on the basis of the following publications:

- Anses. Review of knowledge on the health impact of the general population's exposure to airborne pollen. Anses opinion. Collective expert appraisal report. January 2014. <http://www.anses.fr/fr/system/files/AIR2011sa0151Ra.pdf>
- D. Charpin & D. Caillaud. Epidémiologie de l'allergie pollinique – série "pollens et pollinoses", Revue des Maladies Respiratoires (2014) 31, 365-374.
- B. Guérin. Pollen et allergies, published by ALLERBIO, 1993.
- Allergenic Pollen – A Review of the Production, Release, Distribution and Health Impacts; Editors: Sofiev, Mikhail, Bergmann, Karl-Christian (Eds.), 2013.
- F. Rancé, R. Navarro-Rouimi, G. Dutau. Les allergies polliniques. Paris: Expansion formation et éditions DL 2007 (219 p.).

- recommends a general approach in terms of messages, irrespective of the taxon in question, and highlights the importance of the information being uniform and consistent across the various channels that are used for its dissemination;
- recalls that an effective communication strategy requires that:
 - messages be written in a way that is easy to understand by everyone;
 - all relevant stakeholders should be involved in disseminating the messages (public authorities, experts, healthcare professionals, environmental and social organisations, associations, communicators, supervisors in collective settings/schools, and so on);
- emphasises the need to set up an evaluation of the suggested communication measures, which makes use of indicators which still need to be defined and could, for example, be the number of visitors to websites providing information on pollen allergy diagnoses, etc.;
- indicates that, in addition to health recommendations, efforts must focus on improving the management of allergenic species with a view to reducing exposure;
- points out that this opinion will need revising depending on changes regarding: a) scientific knowledge, b) climate and its impacts, c) benchmarks used by the RNSA for monitoring pollen or by the *pollinariums sentinelles* for observing pollen release from allergenic species.

RECOMMENDATIONS

Based on the principles mentioned in the introduction, and irrespective of the taxon, the HCSP recommends disseminating, at the beginning of the pollen season: (a) information messages among the general public and healthcare professionals and (b) recommendations among pollen allergy sufferers.

Furthermore, the following must be specified: (c) alert thresholds for disseminating information among the general public and healthcare professionals as well as recommendations among pollen allergy sufferers, along with (d) the relevant dissemination channels.

a) Information messages for the general public and healthcare professionals

Target audience	Information messages
<p>- General public</p>	<p>Do you suffer from one or more of the following symptoms?</p> <ul style="list-style-type: none"> - bouts of sneezing - itchy, sometimes blocked or runny nose - red, itchy or watery eyes - possibly in combination with wheezing or coughing. <p>If you are frequently bothered by these symptoms on a seasonal basis, and they are associated with feeling unusually tired,</p> <p>➤ you may suffer from a pollen allergy (hay fever).</p> <p>There are prevention and treatment methods available to help hay fever sufferers. Feel free to ask your pharmacist or doctor for advice.</p> <p>Information about allergenic plants, pollen counts and the periods and regions concerned can be found on the following websites:</p> <ul style="list-style-type: none"> - the French aerobiology network (RNSA): http://www.pollens.fr/accueil.php - the French association of <i>pollinarius sentinelles</i> (garden-observatories grouping together the main plant species producing allergenic pollen (APSF): http://www.alertepollens.org/ - your accredited regional air quality monitoring association: <link to the regional air quality monitoring website>.

Target audience	Information messages
<p>- Healthcare professionals</p>	<p>If you have patients suffering from symptoms of allergic rhinoconjunctivitis:</p> <ul style="list-style-type: none"> - repeated sneezing - nasal pruritis and/or in alternation with nasal congestion or rhinorrhoea, - conjunctivitis, ocular pruritis and watery eyes, <p>in combination with symptoms of asthma and/or possible coughing, in a context of unusual asthenia, and if these symptoms are frequent and seasonal,</p> <p>➤ they may have a pollen allergy.</p> <p>You can find information about allergenic plants, pollen counts and the periods and regions concerned on the following websites:</p> <ul style="list-style-type: none"> - the French aerobiology network (RNSA): http://www.pollens.fr/accueil.php - the French association of <i>pollinarius sentinelles</i> (garden-observatories grouping together the main plant species producing allergenic pollen (APSF): http://www.alertepollens.org/ - your accredited regional air quality monitoring association: <link to the regional air quality monitoring association website>.

b) Recommendation messages for pollen allergy sufferers

Target audience	Behavioural recommendations for limiting pollen exposure
<ul style="list-style-type: none"> - Pollen allergy sufferers 	<p>During the corresponding pollen season*:</p> <ul style="list-style-type: none"> ➤ At home: <ul style="list-style-type: none"> - Rinse your hair at the end of the day because it collects a lot of pollen; - Open your windows before sunrise and after sunset as plants start to release pollen into the air at sunrise; - Avoid exposure to other irritants or allergenic substances indoors (such as tobacco, household cleaning products, indoor air fresheners or incense). ➤ Outdoors: <ul style="list-style-type: none"> - Avoid outdoor activities that increase exposure to pollen (mowing the lawn, gardening, playing sport, etc.), or if these cannot be avoided, try to do them at the end of the day and wear protective glasses/goggles and a mask; - Avoid hanging washing out to dry as pollen settles on damp laundry; - Keep the windows closed if travelling by car; <p>Pay even more attention to these recommendations when air pollution is high. Information on air pollution episodes and related recommendations are available on the website of your accredited regional air quality monitoring association.</p> <p>You can get information on allergenic plants, pollen counts, the periods and regions concerned on the following websites:</p> <ul style="list-style-type: none"> - the French aerobiology network (RNSA): http://www.pollens.fr/accueil.php - the French association of <i>pollinariums sentinelles</i> (garden-observatories grouping together the main plant species producing allergenic pollen (APSF): http://www.alertepollens.org/ - your accredited regional air quality monitoring association: <link to the regional air quality monitoring association website>. <p>These are general recommendations for you to review with your doctor on a case-by-case basis.</p>

* In Appendix 3, the usual pollen calendar and most common geographic areas concerned are indicated for ragweed, birch, cypress and grass (the four pollen types that cause the most allergies in mainland France).

c) Threshold values

The HCSP recommends the following thresholds to professionals responsible for disseminating the messages (specified in point (d)):

- threshold for disseminating information messages among the general public and healthcare professionals: pollen exposure threshold corresponding to the low allergy risk of pollen exposure (RAEP 2¹¹) as defined by the RNSA.

¹¹ The allergy risk associated with pollen exposure (RAEP) is measured from 0 (= nil) to 5 (= very high). Specific to a given pollen/taxon and geographic area, it is based on pollen counts, phenological and clinical data as well as weather

- threshold for disseminating recommendations among allergy sufferers: start of the pollen season, as determined by the *Pollinarium sentinelle* (first flower to release pollen into the atmosphere for each allergenic species) or, failing that, use of the very low allergy risk of pollen exposure (RAEP 1¹²) as defined by the RNSA pending the extension of the *pollinarium* network.

d) Message dissemination channels

The HCSP recommends that:

- the dissemination of information messages and recommendations, irrespective of the target audience (general public, healthcare professionals or allergy sufferers) be centralised by the French Regional Health Agency (ARS) and forwarded to the channels in question once information has been received from the measurement systems (RNSA and APSF). This will ensure that a health correspondent oversees the dissemination of messages, particularly by acting as an intermediary for the various dissemination channels (this person should be the correspondent responsible for health/environment matters or, failing that, the correspondent responsible for air pollution concerns). When air pollution and pollen episodes occur at the same time, the ARS will ensure that a link is drawn between the behavioural recommendations for allergy sufferers and the health messages directed at people who are particularly sensitive or vulnerable to the effects of air pollution.
- a general national information campaign be developed by the future French national public health agency for pollen and its effects (involving a range of media such as posters, printed brochures and adverts) which could be coordinated with specific initiatives such as Allergy Day or Ragweed Day for example.

It makes the following proposals about the dissemination channels to be used for the general public and pollen allergy sufferers:

- Information messages and behavioural recommendations aimed at limiting exposure to pollen are intended for both the general public and pollen allergy sufferers. They can therefore be disseminated through the same channels, even if allergy sufferers are probably connected to other information sources.
- **The channels to be given precedence for disseminating this information are:**
 - the professional channels (RNSA, APSF), the Aasqa, patients'¹³ and/or healthcare professionals'¹⁴ associations via their websites, newsletters and social media;
 - Météo France (France's national weather service),
 - the general media at national and regional level: newspapers, radio, television, Internet, etc.
 - local authorities via their variable message signs, municipal information bulletins, websites, etc.
 - healthcare professionals: dissemination of information in pharmacies and the waiting rooms of GPs, paediatricians and allergy specialists, particularly in the form of posters.

forecasting. RAEP 2 (low) is a level at which most people sensitive to this pollen begin to experience symptoms and need to begin taking their treatments or go to see their doctor or pharmacist.

¹² RAEP 1 (very low) is a level at which the most sensitive people to this pollen can begin to experience symptoms and need to start taking their treatments or go to see their doctor or pharmacist.

¹³ French Association for the Prevention of Allergies (<http://allergies.afpral.fr/>)

¹⁴ French Association of *Pollinariums Sentinelles* (APSF: <http://www.pollinarium.fr/>); Asthma and Allergy Association (<http://asthme-allergies.org/>, joint association for patients and healthcare professionals).

For the dissemination channels aimed specifically at healthcare professionals, the HCSP recommends the following:

- Consider the possibility of disseminating information about pollen by teaming up with some of the channels already in use, such as the dissemination lists sent out to healthcare professionals (DGS, ARS, InVS¹⁵, various alerts, etc.);
- Particularly via professional or public associations, direct pharmacists and GPs to the RNSA and *Pollinariums sentinelles* websites and encourage them to sign up for newsletters and email alerts and invite their patients with allergies to sign up too;
- Involve the French Regional Union of Healthcare Professionals (URPS) in passing these messages on to healthcare professionals. The pharmaceutical and medical press could also play their part.

The Environmental Health Expert Committee (CSRE) met on 28 April 2016: 11 out of 17 qualified voting members expressed their opinion, there were 0 conflicts of interest, the text was approved by 11 voting members, 0 vote against and 0 abstention.

No identified conflicts of interest.

Opinion produced by the Environmental Health Expert Committee

On 28 April 2016

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¹⁵ French Institute for Public Health Surveillance, now the French National Public Health Agency (Santé publique France).

Appendix 1: Consultation of stakeholders in the field about the HCSP's proposals regarding information messages and recommendations to limit pollen exposure

In response to the formal request from the French General Directorate for Health (DGS) dated 28 July 2015, the working group set up by the HCSP Environmental Health Expert Committee (CSRE) has come up with proposals concerning:

- information messages to be issued to the general public and certain healthcare professionals to bring the risks of pollen to their attention and encourage visits to the doctor, testing and treatment for patients unaware of their pollen allergy;
- health recommendations to be issued to allergy sufferers so that they can adopt behaviours enabling them to reduce their exposure to allergenic pollen and ease their symptoms.

The working group's information message and recommendation proposals were submitted to the CSRE for validation on 27 January 2016.

With the CSRE's agreement, on 29 January 2016 these information messages and recommendations were then forwarded to a certain number of stakeholders in the field (community pharmacists, GPs, allergy specialists, healthcare professionals' associations with an interest in allergies, association of allergy sufferers) for checking through and making any comments. The deadline for receiving feedback regarding these messages was 12 February.

Within this short timeframe, 18 responses were able to be analysed (from pharmacists, professional associations, a patients' association and allergy specialists).

Overall, their feedback was very positive on both content and form (good quality of the document, simple messages that were easy to understand: 8 out of the 18 respondents) and 15 suggestions for improving the messages were put forward without casting any doubt over the validity of the content.

The working group was able to use this feedback to improve the suggested information messages and recommendations to be issued with a view to preventing health risks associated with allergenic pollen.

Appendix 2: List of allergenic pollen types (Anses collective expert appraisal)

The species that are known to be or suspected of being involved in reported cases of pollen allergy in France are listed in Anses' January 2014 collective expert appraisal report¹⁶ on the basis of documented observations and the available international scientific literature.

For these species, the experts reached a conclusion on the allergenic potential of each plant, with its geographic distribution across France and the associated existing or potential risk.

The species of major interest (allergy risk considered to be very high) are those types of pollen with the highest allergenic potential and/or which are having the highest current health impact according to existing medical research: cypress, thuja, juniper (etc.), grass, birch and ragweed.

The species for which the allergy risk can be considered high in France are plants which are not as widespread but whose allergenic potential is high in other countries (close attention should be paid to these in future epidemiological studies): wall pellitory, olive tree, ash, alder, hazel, hornbeam, plane tree, goosefoot, amaranth (etc.) and plantain.

Species with low allergenic potential and/or not very widespread across France are also listed in the collective expert appraisal report (palm tree, poplar, blackberry bush, sorrel, oak, beech, sweet chestnut, maple, nettle, elm, pine, fir, spruce, larch (etc.), cedar, yew and walnut).

¹⁶ Review of knowledge on the health impact of the general population's exposure to airborne pollen. Anses opinion. Collective expert appraisal report. January 2014.