

Supplemental material 1 – “Vaccination” telephone questionnaire of GPs in private practice

I- General opinions in vaccination

I-1. Concerning vaccination in general in your daily practice, are you? (*not at all favourable; somewhat unfavourable; somewhat favourable; very favourable*)

I-2. How many half-days or evenings of continuing medical education have you done in the past 12 months on the topic of infectious diseases and/or vaccination?

I-3. Do you feel the need for training in vaccination? (*yes; no*)

I-4. Do you trust the following sources to give you reliable information on the benefits and risks of vaccines? (*do not trust at all; distrust somewhat; trust somewhat; trust completely*)

- The Health Ministry,
- Health agencies (for example, national institute for disease prevention and health education, national drug agency...),
- The pharmaceutical industry,
- The media (TV, press, radio),
- Scientific sources (learned societies, scientific journals),
- Your specialist colleagues (for example, in a hospital or vaccination centre).

I-5-A. Do you consult the INPES vaccination guide? (*never; sometimes; often; very often*)

I-5-B. Do you visit **free** medical websites specialised in vaccination, such as infovac or mesvaccins.net? (*never; sometimes; often; very often*)

I-6. Have you ever visited websites giving unfavourable opinions on vaccination or certain

vaccines? *(no never; yes by chance; yes deliberately)*

I-7. Do you agree with the following statements about these negative sites? These sites:

(strongly disagree; disagree; agree; strongly agree)

- Provide useful information,
- Question the very principle of vaccination,
- Help to understand the reticence of some patients.

II- Vaccination habits for physicians, their families and their patients

II-1. Personally, were you vaccinated against the seasonal flu vaccine for winter 2013-14?

(yes; no; don't remember)

II-2. . When was your last diphteria-tetanus-pertussis (DTP) booster? *(less than 10 years ago; 10-20 years ago; over 20 years ago; don't remember)*

II-3. . Are you vaccinated against Hepatitis B? *(yes, 3 or more doses; yes, fewer than 3 doses; no, don't remember; not concerned)*

II-4-A. You have a child aged between 2 and 25: did you have him or her vaccinated against:

(yes; no)

- Hepatitis B,
- Meningococcal meningitis C,
- Measles-mumps-rubella (MMR).

II-4-B. . You have children aged between 2 and 25: did you have them vaccinated against:

(yes, all; yes, some; no, none)

- Hepatitis B,
- Meningococcal meningitis C,

- Measles-mumps-rubella (MMR).

II-5-A. You have one daughter aged between 11 and 25: did you have her vaccinated against Human papillomavirus (HPV)? *(yes; no but you are intending to; no, because the indications didn't seem to apply to her; no, you do not intend to for a different reason)*

II-5-B. You have daughters aged between 11 and 25: did you have them vaccinated against HPV? *(yes, all of them; yes, some of them; no, but you are intending to; no, because the indications didn't seem to apply to them; no, you do not intend to for a different reason)*

II-6. Do you recommend the following vaccines? *(never; sometimes; often; always)*

- Measles, mumps and rubella (MMR) for non-immunized adolescents or young adults,
- Meningococcal meningitis C catch-up vaccine for ages 2 – 24,
- Meningococcal meningitis C for infants aged 12 months,
- HPV for girls aged 11-14,
- Hepatitis B catch-up vaccine for adolescents,
- Seasonal flu vaccine for adults with diabetes younger than 65.

II-7. Do you give parents a list of the diseases covered by the hexavalent vaccine?
(never; sometimes; often; always)

II-8. In the last five years, have you experienced the following situations? *(yes; no)*

- Measles in adolescents or young adults
- Recently discovered chronic Hepatitis B
- Hospitalisation for complications of seasonal flu
- Bacterial meningitis
- Cervical cancer

II-9. You have seen at least one case of measles: was it reported to the health authorities?

(yes, by you; yes, by someone else; no)

III- Clinical vignette

Version 1: A mother comes to your surgery with her 4 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 38°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the same as usual.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

Version 2: A mother comes to your surgery with her 4 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 38°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the same as usual; the mother is worried about whether her feverish child will tolerate the vaccine.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

Version 3: A mother comes to your surgery with her 4 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 39°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the same as usual.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

Version 4: A mother comes to your surgery with her 4 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 39°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the same as usual; the mother is worried about whether her feverish child will tolerate the vaccine.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

Version 5: A mother comes to your surgery with her 11 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 38°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the same as usual.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

Version 6: A mother comes to your surgery with her 11 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 38°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the

same as usual; the mother is worried about whether her feverish child will tolerate the vaccine.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

Version 7: A mother comes to your surgery with her 11 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 39°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the same as usual.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

Version 8: A mother comes to your surgery with her 11 month-old child for a hexavalent vaccine booster (note to interviewer: DTPa, Polio, Hepatitis B, Haemophilus B); the child has had a temperature of 39°C for two days with common, uncomplicated rhino-pharyngitis; the rest of the examination is normal and the mother tells you that the child's behaviour is the same as usual; the mother is worried about whether her feverish child will tolerate the vaccine.

Question: the mother has brought the vaccine; you recommend:

- giving the vaccination on that day;
- postponing the vaccination until the temperature is normal.

IV- Opinions on vaccination and certain vaccines

IV-1. Do you believe that your role in vaccinating your patients is to encourage them to have

a vaccination even if they are reticent? (*strongly disagree; disagree; agree; strongly agree*)

IV-2. Do you feel that you easily obtain your patients' adhesion to vaccination in the following situations? (*not at all easily, not easily, somewhat easily, yes, very easily*)

- Against seasonal flu in people with diabetes younger than 65,
- Against meningococcal meningitis C in adolescents and young adults,
- Against human papillomaviruses in girls aged 11-14,
- Against hepatitis B in previously unvaccinated adolescents,
- Against MMR in adolescents or young adults.

IV-3. Do you agree with the following statements on vaccination? (*strongly disagree, disagree, agree, strongly agree*)

- The health authorities are influenced by the pharmaceutical industry,
- Patients should mistrust what they find on internet,
- You trust your own judgement rather than the official recommendations.

IV-4. Do you think the following vaccines are likely to cause these diseases? (*not at all likely, not very likely, fairly likely, very likely, no opinion*)

- Vaccine against seasonal flu to cause Guillain-Barré syndrome,
- Vaccine against hepatitis B to cause multiple sclerosis ,
- Vaccines containing aluminium to cause Alzheimer's disease,
- Pandemrix vaccine against H1N1 pandemic flu to cause narcolepsy,
- Papillomavirus to cause multiple sclerosis.

IV-5. Do your patients ask you about the risks of adjuvants in vaccines? (*never, sometimes, often, always*)

IV-6. Do you think that adjuvants in vaccines is linked to long-term complications? (*no; unlikely; likely; yes*)

IV-7. In your opinion, aluminium is present: (*yes; no; no opinion*)

- In most of the vaccines used in France,
- In the vaccine against seasonal flu.

IV-8-A. Have you ever been confronted with a SERIOUS health issue, i.e. one which led to a hospitalisation, disability, etc., potentially linked to a vaccination in one of your patients? (*yes; no*)

IV-8-B. Did you notify the health authorities? (*yes; no*)

V- Opinions on what prevents vaccination

V-1. Do you agree with the following statements? (*strongly disagree, disagree, agree, strongly agree*)

- In general, your patients overestimate the risks related to some vaccines,
- In general, your patients underestimate the INDIVIDUAL benefits of vaccination,
- In general, your patients underestimate the COLLECTIVE benefits of vaccination,
- Today, certain vaccines recommended by the authorities are pointless,
- The media publish too many negative messages about vaccination,
- Children are vaccinated against too many diseases.

V-2. Do you think that the vaccines in the vaccination schedule should be compulsory? (*Yes, all; yes, only some; no, none*)

V-3. Do you agree with each of the following proposals concerning the vaccine against human papillomavirus infections in girls aged 11-14? (*strongly disagree, disagree, agree,*

strongly agree)

Your patients:

- Fear complications from this vaccine: strongly disagree, disagree, agree, strongly agree
- Are unaware of the diseases caused by papillomavirus
- Doubt the efficacy of the vaccination
- Do not see the advantages of the vaccination as monitoring by smear test must be continued (note to interviewer: cervical and vaginal smear test)
- Fear that the vaccine encourages unprotected sex

V-4. Still on the vaccine against papillomavirus in girls aged 11-14: Do you agree with the following statements? (*strongly disagree, disagree, agree, strongly agree*)

- The presence of a parent complicates the consultation,
- You hesitate to discuss sexuality with young female patients,
- You have doubts about the efficacy of the vaccine,
- Not enough is known about the risks of the vaccine.

V-5. Do you think the recommendation to vaccinate adolescents and young adults against meningococcal meningitis C is quite clear? (*yes; no*)

V-6. Still on this vaccination: Do you agree with the following statements? (*strongly disagree, disagree, agree, strongly agree*)

Your patients

- Fear unpleasant side effects from the vaccine,
- Underestimate the risk of contracting meningitis,
- Are not aware of the gravity of bacterial meningitis,
- Express doubts as to the efficacy of the vaccine,
- Have never heard of this vaccination.

V-7. In general, do you feel comfortable giving explanations to your patients about: *(not at all comfortable, somewhat uncomfortable, somewhat comfortable, very comfortable)*

- The value of vaccines,
- The safety of vaccines,
- The role of adjuvants.

V-8. Do you agree with compulsory vaccination for doctors against seasonal flu? *(yes; no)*

VI- Opinions on various actions concerning vaccination

VI-1. Have you consulted the new vaccination schedule published in 2013? *(yes; no)*

VI-2. Does it make your work easier? *(yes; no)*

VI-3. Do you think the following would be useful in your practice? *(yes; no)*

- An electronic vaccination record in your professional software,
- An automatic text message to remind patients of their dates of vaccination,
- A special procedure payment for a consultation about vaccination,
- A free hotline for doctors about vaccines,
- A free electronic letter intended for GPs providing updates on vaccination,
- Vaccines kept in your surgery,
- Leaflets for GPs on the benefits and risks of each vaccine,
- Information leaflets for patients on the benefits and risks of vaccination,
- Public awareness campaigns on vaccines.

VI-4. If there was a law allowing for a nurse to work in your surgery, paid by the national health insurance fund, would you agree to delegate to him or her the task of: *(yes; no)*

- Monitoring vaccinations for your patients,
- Noting down these vaccinations in medical records,
- Administering vaccinations,
- Prescribing vaccines.