

Supplementary Material

S1. Questionnaire on COVID-19 vaccine hesitancy among liver transplant recipients. The translated adapted version of the validated questionnaire.

A) Personal and socio-demographic data

- Gender

M

F

- Age

- Nationality

ITA

UE

Not UE

- Place of birth

- Municipality (where You live and are being treated)

- Marital status

single

married

cohabiting

widower

married in second marriage

separated / divorced

• How many members are there in your household (including yourself)?

1

2

3

4

> 4

• Do you have any children under the age of 10?

Yes

No

• What is your highest level of education obtained?

none

elementary school

middle school

high school

degree / post-graduate degree

• What is your current occupation?

student

employed part-time

busy full-time

precarious

unemployed

home-made

in layoffs

retired

wealthy without work

freelance

• What kind of profession do you have (or did you have)?

manager / entrepreneur / professional

employee / technical profession

manual / craft work

armed / police forces

• Do you work as health care provider?

Yes

No

B) Data relating to the disease

• Which is the reason of your liver transplantation?

Cirrhosis

Hepatocellular Carcinoma

Acute liver failure

• Are you currently being treated with? (more than one answer possible)

Tacrolimus

Ciclosporines

Corticosteroides

Azathioprine or 6-Mercaptopurine

Everloimus

Micophenolate

• How many years ago were you transplanted?

<5 years

5-10 years

> 10 years

• Do you follow the therapeutic recommendations?

Yes

No

most of the time

C) Lifestyles, behaviors, attitudes

• Do you smoke cigarettes / cigars?

Yes

No

Yes, electronic / non-combustion devices

Former smoker

• Do you consume alcohol?

Yes, often or in large quantities

Yes, minimal consumption

NO

• Do you think you have an active lifestyle (do regular physical activity, eg individual sport, running, walking, team games, gym)?

YES

No

• Are you vegetarian, vegan?

Yes

No

• Do you practice homeopathy, naturopathy or other alternative medicine?

Yes

No

• Do you undergo preventive diagnostic activities (pap-test, mammography, fecal occult blood test etc.)?

Yes

No

• What kind of attitude do you think you have towards vaccinations in general?

positive

partly positive, partly negative

negative

• Do you intend to get vaccinated again in the future?

Yes

No

• If you have children, do you intend to vaccinate your children in the future?

Yes, in full

Yes, in part

No

D) Knowledge and perceptions of vaccinations and vaccine preventable diseases

• Do you think vaccines are: (more than one response possible)

Effective

Safe

Necessary

Protective towards yourself

Protective towards the community

Free of adverse effects

With mild adverse effects

With significant adverse effects

in number and adequate vaccination sessions

too many

I don't know

• Do you believe that the diseases for which vaccines are planned are: (more than one response possible)

Not self-resolving

With long-term consequences (amputations, dementia, deafness, blindness, etc ...)

- Potentially fatal
- Easily contagious
- Frequent
- Paid by the whole community

• Do you believe that diseases for which vaccines are provided and which have disappeared from circulation, can return if vaccination is stopped?

- Yes
- No

• What do you think is the correct strategy (s) to prevent these diseases?

- vaccination
- alternative strategy to vaccination (healthy diet and physical activity, proper personal hygiene, food supplements, homeopathy, etc.)
- vaccination and other strategies

• Can you distinguish between mandatory and recommended vaccinations?

- Yes
- No

E) Vaccination history

• Which of these vaccinations have you had in your life?

- Tetanus
- HBV (Hepatitis B)
- HAV (Hepatitis A)
- MPR (Measles-Mumps-Rubella)
- Influenza
- Pneumococcus
- HPV (Papilloma Virus)
- Meningitis
- Some (I don't know)
- None
- I don't remember

• Have you been vaccinated against one of the previous agents motivated by your inflammatory bowel disease or by the therapies you do?

- Yes
- No

F) Sources of information

• If you need information on vaccinations against the new Coronavirus responsible for COVID-19, who would you contact?

- General Practitioner
- Pediatrician
- operator of the vaccination center
- another health worker
- pharmacist
- relatives / friends / acquaintances / colleagues who work in healthcare
- relatives / friends / acquaintances / colleagues who do not work in healthcare
- scientific literature
- mass media (TV, radio, newspapers)
- internet
- social networks

• Do you think you are informed about COVID-19 and its vaccination?

- Yes
- No

• If so, through which channel?

- General Practitioner
- Pediatrician
- operator of the vaccination center
- other health professionals
- pharmacists
- scientific literature
- Ministry of Health (information campaigns, etc.)
- relatives / friends / acquaintances / colleagues
- mass media (TV, radio, newspapers)
- websites
- social networks

• Do you have a personal computer (PC), smartphone or tablet?

- Yes
- No

• Do you use the internet?

- Yes
- No

• If so, how often do you look for health information and health data?

- Every day
- A few times a week
- At least once a month
- Less than once a month
- Never

G) Trust and Influences

• What do you think are the reasons that push the Ministry of Health and the Regional Health Department to strongly recommend vaccinations?

- collective well-being / health
- economic interests of pharmaceutical companies
- other economic interests
- both of the above

• Have you had any negative personal experiences (relating to yourself or your family, friends, acquaintances) with vaccines in the past?

- Yes
- No

• If so, which ones?

- severe adverse reactions, such as allergy, shock
- disabling diseases
- autism
- mild adverse reactions
- perception of lack of protection

• Have you heard of negative experiences with vaccines on the internet in the past?

- Yes
- No

• If so, which ones?

- severe adverse reactions, such as allergy, shock
- disabling diseases
- autism
- mild adverse reactions (fever, pain, etc.)
- perception of lack of protection

• Do you have more confidence in health professionals than in the mass media regarding information on vaccinations?

- Yes
- No

H) Liver transplantation and the new Coronavirus responsible for COVID-19

• Do you think that your Liver transplantation could expose you to a greater risk of contracting the new Coronavirus infection?

- Yes
- No

• Do you think that your Liver transplantation may be associated with a worse course of the disease?

Yes

No

• Do you think that the treatments you are taking for your Liver transplantation may increase the risk of contracting the new Coronavirus infection?

Yes

No

• Do you think that the treatments you are taking for your Liver transplantation may be associated with a worse course of COVID-19 disease?

Yes

No

I) Liver transplantation and vaccination against the new Coronavirus responsible for COVID-19

• Do you think that your Liver transplantation could expose you to a greater risk of having side effects from the new Coronavirus vaccine?

Yes

No

• Do you think that the treatments you are taking for your Liver transplantation could increase the possibility of having any unwanted effects from the new Coronavirus vaccine?

Yes

No

L) Intention to vaccinate against COVID-19

• If asked to get vaccinated against COVID-19 tomorrow, how would you respond?

Yes

No

• If answered yes, do you think your condition is a reason to access vaccination as a priority?

Yes

No

• If you answered no, for which of these reasons?

Fear of possible adverse reactions

I fear the speed at which the vaccine was developed

- I think it is not effective
- I am not afraid of the disease
- If you answered no, would you get vaccinated in the future when we have more data?
 - Yes
 - No
- If you answered no, was your choice influenced by having already had the disease (even if in an asymptomatic form diagnosed by antibody test)?
 - Yes
 - No
- If you answered no, was your choice influenced by your underlying chronic inflammatory disease?
 - Yes
 - No

Table S1. Socio-demographic of the total cohort of 711 patients.

Characteristic	(n=711)
Age, years, median (range)	63 (19-84)
Male gender, n (%)	502 (70.6%)
Years from liver transplant, median (range)	9 (0-35)