VAC-PACT PILOT PROJECT VACCINATION CONFIDENCE – PATIENTS' AND PROFESSIONALS' AWARENESS, COMMUNICATIONS & TRUST

# Vaccination & Diabetes







Funded by the European Union



# The status quo

- Thousands of adults around the world get sick from diseases that could be prevented by vaccines every year.
- People with diabetes, in specific, are often at higher-risk of complications from vaccine-preventable diseases.

World Health Organization (WHO) estimates:

# **422** million people

worldwide have diabetes

# 1.6 million deaths

are directly attributed to diabetes each year

Some diabetes / vaccines figures:

-24%

The **decrease in all-cause mortality** in vaccine recipients during influenza season, compared to unvaccinated participants<sup>1</sup>.

-22%

The reduction in the rate of hospital admissions

during influenza season for acute myocardial infraction<sup>2</sup>.

Getting vaccinated is an important step in staying healthy.

Talk to a healthcare professional, discuss your individual situation and health needs, and make sure you get your vaccinations up to date.

Systematic review by Dos Santos et. al. (Dos Santos, 2018) conducted on 125,503 adults with type 2 diabetes.

<sup>2.</sup> Reductions reach 18% for stroke, 17% for heart failure and 25% for pneumonia or influenza.

### **Diabetes** overview



Diabetes is a **chronic condition** characterised by **elevated blood sugar** (glucose). This occurs when the pancreas is no longer able to produce insulin, or when the body cannot make use of the insulin it produces. Diabetes comes in different forms, depending on the cause.

### Type 1 diabetes

can appear at any age, but occurs most frequently in children and adolescents.



pancreas g-cells produces little or no insulin (due to autoimmune condition)



glucose builds up in the blood stream



cells are unable to use glucose due to little or no insulin

#### Type 2 diabetes

is the most common, accounting for ~90% of cases, mostly in adults.



insulin resistance (cells are unable to fully respond to insulin)



glucose builds up in the blood stream



Pancreas makes more insulin to keep up with added demand. Over time, pancreas cannot make enough insulin

### **Diabetes** overview

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Other types of diabetes also include **gestational diabetes (GDM)**, which can develop during pregnancy, and is associated with complications to both mother and child. Women affected and their children are at increased risk of developing type 2 diabetes.



Diabetes, specifically if not adequately controlled, can make it harder for your immune system to **fight infections** compared to people without diabetes. Elevated levels of blood sugar can lead to serious damage to the heart, blood vessels, eyes, kidneys, and nerves over time.



There is, currently, no cure for diabetes but with treatment, preventative care, and lifestyle modifications, you can live a long, healthy life! Routine medical visits are an opportune time for providing diabetes care, follow-up, and continuous patient education.



### Vaccine essentials

Vaccination protects those vaccinated, the people around them, and the overall community. When enough people in a population are immune to an infectious disease, the disease is then unlikely to spread from person to person. This is known as **community immunity** (also referred to as **herd immunity**).

Some patients underestimate the risk of getting a disease and do not realise that their lack of being vaccinated can result in a serious risk to their health and to the health of others.

- We know that **people with diabetes** are more exposed to health risks related to vaccine-preventable disease.
- It is crucial to consult with your healthcare professional on a case-by-case basis as certain vaccines are not recommended for people with compromised immune systems and/or allergies.

**Reminder**: Healthcare professionals' advice has an important impact on patients' attitude towards vaccination.

### Keep in mind:

- There are still considerable variations between national immunisation schedules across the EU.
- You can get an insight about vaccine schedule variations in EU/EEA countries, by using the Vaccine Scheduler provided by the European Centre for Disease Prevention and Control (ECDC).

PLEASE!

Here are 5 key vaccines that help to mitigate these risks based on recommendations from the Centers for Disease Control and Prevention (CDC):

### Influenza (flu) vaccine

Protects against flu infections every year. Flu-associated illnesses include various types of lungs infections that can trigger the worsening of associated chronic conditions.

Getting a flu vaccine is now more important than ever as patients are at higher the risk for serious COVID-19 health outcomes.

### **Hepatitis B**

Protects against **hepatitis B virus** (HBV) a virus that attacks the liver, cause lifelong infection, cirrhosis (scarring), liver cancer, liver failure, and death. Heavy alcohol use, toxins, drugs, and certain medical conditions can cause hepatitis. Vaccination is recommended for adults under 60 years.

### **DTaP / DTwP vaccine**

Protects against tetanus, diphtheria, and pertussis which can be a serious disease for people of all ages. Lockjaw, croup, and whooping cough are some of the unwanted symptoms of these infections. The frequency of the vaccine dose is **recommended based on age**: usually a booster dose is given every 10 years.

### **Pneumococcal vaccine**

Protects against **pneumococcus bacteria** that can cause pneumonia, blood infections and meningitis. Pneumococcal disease is common in young children, but older adults are at greatest risk of serious illness and death. The risk to contract these infections increases with flu. It is, **recommended for all adults 65 years or older** to take the vaccine. Some groups may need multiple or booster doses.

### **Zoster vaccine**

Protects against **shingles** (also known as herpes zoster) and the related painful rushes and blisters that accompany it on one side of the body, often the face or torso. The blisters typically scab in 7 - 10 days and fully clear up within 2 - 4 weeks. However, for some, the pain can last months or even years after the rash subsides. It is **recommended for adults 50 and older**, including adults who have had shingles or got the previous shingles vaccines.

It is essential to also note that though some patients may develop minor symptoms after vaccination, these are normal signs that the body is building protection. Symptoms, if any, should subside in a few days.



### COVID-19

On 11 March 2020, the WHO characterised COVID-19, **an infectious respiratory disease**, caused by a newly discovered coronavirus as a global pandemic affecting people of all ages.

### Common symptoms









Cough



Muscle aches



Tiredness



Breathing difficulties



**People with diabetes** are considered as high-risk groups for COVID-19 and are more likely of developing severe symptoms.



### COVID-19

In view of their increased risk of poor health outcomes as a consequence of COVID-19, it is important that people with diabetes are included among priority groups for vaccination programmes.

By September 2021, the European Medicines Agency (EMA) has authorised the following COVID-19 vaccines for use in the European Union: **Comirnaty** (Pfizer-BioNTech), **Spikevax** (Moderna), **Vaxzevria** (AstraZeneca), and **Janssen**.

The safety of all vaccines in the EU is carefully monitored by EMA.



Symptoms usually start within **3-7 days of** 

**exposure** to the virus, but in some cases, it has taken up to 14 days for symptoms to appear.



# Rare and severe complications

can include lung infection, kidney disease and even death.



Severity of COVID-19 is associated with **increased** 

**age (> 60 years)**, and the presence of multiple underlying health conditions including hypertension, diabetes, cardiovascular diseases, chronic respiratory diseases, and immune suppression. Recent data also points towards male groups at slightly higher risk rates.

### Informed decision

The topic of vaccination is becoming an emotionally charged debate, but it is vital that lack of vaccination uptake and hesitancy must be addressed through **open dialogue**, backed with **scientific evidence**.

**Patient empowerment** is one of the key elements of patient-centred healthcare. This is defined as a multi-dimensional, process that helps patients gain control over their own lives and increases their capacity to act on issues that they themselves define as important.

The messenger may be more important than the message itself for people to accept health interventions.



### Informed decision

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Patient empowerment encompasses of 3 overlapping and mutually reinforcing aspects: health literacy, shared decision-making, and self-management

Empowerment is a two-way process. The patient needs a counterpart in the "empowered health professional" who welcomes the patient's involvement and knows how to create an enabling healthcare environment

## **Expertise**

elements of

The five keys empowerment

Engagement

Experience

# Charter on **patient empowerment**

### You are more than your health condition

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Healthcare is fundamentally about human interactions. Being treated with respect, dignity and compassion and being seen as a human being with a life beyond one's health condition or status is a starting point of empowerment.

### You are empowered to the extent you wish to be

All patients should be supported and enabled to have a say in their care, according to their capabilities and wishes, and regardless of our age, gender, ability, ethnic origin, religion or belief, socio-economic situation, sexual/gender orientation, identity, expression, or characteristics.

# You are an equal partner in all decisions related to your health

All health-related decisions, whether long-term care planning for complex needs or one-off treatment/prevention decisions, should be the result of a shared decision-making process between the patient and the healthcare team. Patients and professionals need to engage as equal partners in dialogue about treatment preferences, priorities, and values.

# You have the information you need in an easily understandable format, including your own health records

Patients have the right to receive information they need and want, in the right amount and format and at the right time, in simple enough language to enable them to make choices according to their wishes. Information for patients should be co-designed with patients to ensure it is of good quality.

# Your health professionals and health system actively promote health literacy

Health literacy is more than information: it is about being able to search out, judge and use health information to make good health decisions in all areas of life.

# You have the ongoing support you need to manage you own care

Individual patients' needs to manage their care and life in the context of their personal values, goals, family, and other circumstances should be at the centre of a joined-up approach to care. Patients and families should be offered all relevant options in order to make meaningful choices. Self-management education should also be made widely available in the community as part of integrated chronic disease care.

### Your experience is a vital measure of healthcare quality

Patient experience should be adopted as a key metric in assessing the quality of healthcare. This does not mean tick-box exercises such as "satisfaction surveys", but meaningful – including qualitative – patient-centred measures. Indicators for assessing the quality of healthcare should be defined also by patients themselves.

# You can participate in evaluating and co-designing healthcare services so they work better for everyone

Meaningful patient involvement is based on the premise that patients have a unique expertise and knowledge: only the patient sees "the whole journey." Patients can identify gaps in provision, but also superfluous or unwanted services, helping make healthcare more effective and efficient. Patients also have a fundamental democratic right to be represented at all levels, their involvement should be built into formal structures and processes.

# Through patient organisations, your voice becomes part of a bigger, united voice

Individual patients can be powerful advocates based on their own personal experiences and circumstances. While patient organisations put forward views representing a constituency of patients.

### Equity and empowerment go hand in hand

To be an empowered patient, access to high-quality care equitable access, without discrimination, to high-quality health and social care is essential.

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