SOME ISSUES OF COMPULSORY VACCINATION OF ADULTS

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SUMMARY

Legal regulation, whether we want it or not, plays a role in protecting and promoting individual and public health. This also applies to legislation involving vaccination, especially compulsory vaccination. It is appropriate that legislation should not create barriers to the provision of health care. Where there is legal ambiguity, problems can arise that make the provision of health care more difficult, as we have seen, for example, in the context of the COVID pandemic. Furthermore, in the case of compulsory vaccination, there is a conflict between fundamental rights and freedoms. On the one hand, the right to the protection of personal freedom and bodily integrity, and on the other, the right to life and health. Most compulsory vaccinations concern children. As far as adult vaccination is concerned, this mainly includes compulsory vaccination of medical and social staff caring for patients and operating at biological risk, as well as patient groups also at risk of serious infectious disease. For these reasons, it is essential that the legislation is such that it does not impose a burden where it is not necessary and, on the contrary, allows for optimal protection of persons at biological risk.

Key words: vaccination, public health protection, occupational health protection, workers at biological risk

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INTRODUCTION

A main part of vaccinations is realized at childhood age. Vaccinations of adults are provided for employees as a duty of Labour Code or as prevention from infection diseases of potentially endangered disabled or aged persons living in different medical or social facilities. Vaccinations as prevention of infectious diseases in some cases concern invalids or elderly people placed in medical or social facilities. Main sources of law are Labour Codes or laws on occupation health protection and Codes on Public Health Protection. Vaccination policy is a competence of national authorities, but the European Commission supports EU countries in coordinating their policies and programmes (1). The vaccination is one of the most effective tools of occupational medicine in fight with infection diseases. Also, vaccinations in medical and social facilities are very important for general and individual prevention. In the context of the above reasons, is compulsory vaccination of adults necessary?

DISCUSSION

A Few Notes on the Use of Compulsory Adult Vaccination

Adult vaccination policies vary. For example, this issue is dealt with in the article by Cassimos et al. (2), which looked at vaccination policies in 2019 in 42 countries. For the purposes of this manuscript, it can be noted that both mandatory and recommended vaccinations occur. What is notable here that most vaccinations take place in childhood.

In adulthood, vaccination against tetanus can be mentioned, as revaccination against this disease in adulthood is still highly recommended, e.g., the CDC recommends a tetanus booster for adults every 10 years; in the Czech Republic the National Immunisation Commission recommends revaccination for adults under 60 approximately every 20 years, for adults over 60, every 10 to 15 years (3). In view of the fact that tetanus is a disease that is not transmissible from person to person, herd immunity cannot be established; from the point of view of prevention, the potential obligation to be vaccinated is questionable.

In general, mandatory vaccinations in terms of vaccination programmes are found in Eastern Europe. Especially as regards diphtheria and tetanus. In the rest of Europe, it is clear that the active immunisation of human population is based on vaccination in childhood. There is no general obligation for adults to be vaccinated. Therefore, the issue of compulsory vaccination of selected population groups is being addressed.

In a stimulating article by Karnaki et al. (4) published in this Journal, the authors examined healthcare workers' attitudes toward vaccination against vaccine-preventable infectious diseases. The authors' research was based on the fact that the threat of infectious diseases among healthcare workers is significant, but the vaccination rate among healthcare workers was low. Healthcare professionals across the EU responded to an online survey. The behaviour of healthcare workers was also explained in connection with support and obstacles to vaccination. An EU-wide overview was developed. The attitudes of healthcare workers towards the monitored diseases, in which the disease can be prevented by vaccination, were published. The majority expressed a positive attitude towards vaccination. Healthcare

workers considered influenza (86.4%), viral hepatitis B (71.9%) and tuberculosis (59.1%) as very high-risk diseases if they were exposed to them in the workplace. The vaccination rate among the healthcare workers is not so high as their attitude in the survey of opinion showed. Although the concept of mandatory vaccination appears to be favoured by many health workers, it remains controversial among different categories of workers and in different countries. Interventions to promote vaccination among healthcare workers could be beneficial if tailored according to disease and target group.

The topic covered by the aforementioned article is of course related to the topic of this article, which deals with mandatory vaccination and its consequences from a legal point of view. It is undoubtedly appropriate when compulsory vaccination is accepted voluntarily with understanding and support of the healthcare workers. Only one-third of the world's countries have a policy instrument that specifically addresses the health and well-being of healthcare workers. Vaccinations are included in this protection (5).

In terms of the scope of this work, the focus is on the obligation to vaccinate healthcare workers, patients and clients of health and social care institutions. A brief analysis is made from the perspective of the Czech Republic, since legally speaking, the obstacles to compulsory vaccination are objectively comparable across democratic states respecting the rule of law.

The Czech Republic is also mentioned because it has established regular compulsory vaccination against *Streptococcus pneumoniae* for persons hospitalized in long-term hospitals, homes for the elderly, homes for people with disabilities, or homes with special regimes, if these persons suffer from chronic non-specific respiratory disease, chronic heart, vascular or kidney disease or diabetes treated with insulin (6). Tetanus vaccination is compulsory in ten countries (Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Italy, Latvia, Poland, Slovakia) and it is recommended in the other twenty-one European countries (7). Vaccination in different countries is a condition of being employed in some institutions – notably in healthcare facilities.

There is no universal approach of how to improve vaccination rates. Some countries with compulsory vaccinations, such as Poland, have high vaccination rates, whilst others such as Finland, achieve similar results without the compulsory vaccinations. The impact of compulsory vaccinations has been assessed by the EU-funded ASSET project.

Childhood vaccinations are not only protective for children, though the protection of some vaccines given in childhood can wear off over time. Therefore, it is necessary to repeat some vaccinations in adulthood, an example of which is vaccination against tetanus. In countries where vaccinations for children are mandatory, these vaccinations for adults are carried out as recommended (3).

Regarding the mandatory vaccination of employees in EU countries from the point of view of labour law, it is possible to note that employers have a general duty to provide a safe workplace, this duty generally does not override the employee's right to decide whether they want to be vaccinated (8). Of course, protecting employees from deadly infectious diseases must be of paramount importance.

The vaccination policy across the world is different. The vaccination policies depend on character of labour law regulation in specific countries (9, 10). There is a potential conflict between the employees' duty to vaccinations and individual freedom of employees. There is a potential conflict between individual freedom of employees and duty of employers to ensure occupational safety and health protection at work at specified workplaces with biological risk (11).

It may be mentioned in this context that mandatory vaccination and the organisation of vaccination of healthcare workers have been specifically addressed by the EU Member States in the context of the COVID pandemic. In 2021, a comparative study was carried out for the Chamber of Deputies of the Parliament of the Czech Republic (12). The comparison between countries is presented in Table 1.

Even in a pandemic situation, the 2021 study showed the divergent thinking of national political representations.

The workplaces taken into account are as follows, e.g., surgical departments, haemodialysis and infectious disease departments, inpatient internal departments including hospitals for long-term patients and internal departments performing invasive procedures, anaesthesiology-resuscitation departments, intensive care units, laboratories working with human biological material, transfusion service facilities, dental, pathological-anatomical departments, forensic medicine, psychiatric and emergency medical services, as well as homes for the elderly, homes for people with disabilities, homes with a special regime, and asylums.

It is highly undesirable to end up in the position of widespread outbreaks in nursing homes in which many people living and working have lost their lives.

Countries with a tradition of mandatory vaccination, such as France, Italy and some Central and Eastern European countries,

Table 1. *Countries considering/not considering mandatory vaccination*

Country	Mortality per 1 million population	Vaccination coverage (%)
Countries considering mandatory vaccination		
Belgium	2,342	76
Bulgaria	4,267	27
Ireland	1,180	77
Lithuania	1,180	64
Poland	2,323	55
Slovakia	2,776	43
United Kingdom	2,172	–
Countries not considering mandatory vaccination		
Denmark	392	77
Croatia	2,806	51
Luxembourg	1,393	69
The Netherlands	1,097	74
Portugal	1,800	88
Romania	2,920	39
Spain	1,816	80
Sweden	1,436	71

Vaccination rate in the United Kingdom was not specified.

use mandatory vaccination of employees of health and social facilities against selected infectious diseases. For example, the issue is gaining importance in other EU countries in connection with measles outbreaks (13).

The countries with limited financial resources have limited vaccination coverage resulting in greater morbidity and mortality due to infectious disease. More affluent countries are able to subsidize vaccinations for at-risk groups, resulting in more comprehensive and effective coverage. In Australia, for example, the Government subsidizes vaccinations for seniors and indigenous Australians. The Public Health Law Research, an independent US based organization, reported in 2009 that there is insufficient evidence to assess the effectiveness of requiring vaccinations as a condition for specified jobs as a means of reducing incidence of specific diseases among particularly vulnerable populations, however, there is sufficient evidence supporting the effectiveness of requiring vaccinations as a condition for attending childcare facilities and schools; and there is also strong evidence supporting the effectiveness of standing orders, which allow healthcare workers without prescription authority to administer vaccine as a public health intervention (14).

Vaccination is routinely used to protect employees and the patients being treated by these employees. Positive experiences with such protection are commonly recognized.

The experience and knowledge of healthcare workers may be the reason for their vaccinations to be recommended, voluntary, and not mandatory. It must be emphasized that vaccinations, for example against hepatitis A and hepatitis B, are very important for specific groups of people, especially for members of the basic components of the integrated rescue system.

It is also important to mention the importance of emergency vaccinations for the prevention of infectious diseases in emergency situations, for example vaccination against type A jaundice during floods. Undoubtedly, these emergency vaccinations will always be needed during natural disasters. These vaccinations will have to be mandatory in some specific situations. For example, a large and rapid spread of jaundice A can occur during extensive flooding in the summer months. Therefore, preventive measures have to be implemented en masse and quickly.

Compulsory Adult Vaccination in the Czech Republic

The Czech Republic, as mentioned above, is one of the countries in which certain vaccinations are mandatory (5). Vaccination can theoretically be carried out even without the patient's consent, but not if it is only a preventive measure. Generally speaking, the enforceability of compulsory vaccinations for adults is limited. Furthermore, specific enforceability should be mentioned.

There are mandatory vaccinations against pneumococcal infections for individuals placed in hospitals for the long-term sick and in homes for the elderly. The enforceability of mandatory vaccination for these persons in the event of their disagreement is highly questionable and problematic, as these persons often do not have the opportunity to leave a medical or social facility. It is also very problematic to force these persons to leave said facilities. Regarding the mandatory vaccination of employees, it is possible to mention the legal regulations in some countries during the COVID-19 pandemic.

Adult Compulsory Vaccination in Selected Countries During COVID-19 Pandemic

In France, employees of hospitals, nursing homes, retirement homes and other medical facilities, emergency services, and firefighters had to be vaccinated (15). If the mentioned employees did not fulfil this obligation by the set deadline, they were threatened with a ban on the performance of their profession.

In Italy, medical personnel had to be vaccinated. The employee, who refused vaccination was not allowed to come into contact with patients and therefore lost his job.

In Greece, vaccination was mandatory for nursing home staff and later for all medical staff.

The situation was similar in Hungary. Health workers, who were not vaccinated by the set deadline, were not allowed to continue working in the health sector.

In Australia, vaccinations have been made mandatory for staff in nursing homes and quarantine facilities.

In the UK, nursing home staff including service providers such as hairdressers and volunteer helpers had to be vaccinated.

Vaccinations were mandatory in the Vatican for both residents and people who work in the Vatican. If the vaccination was refused, there was a threat of dismissal from the job.

In Tajikistan, every resident over the age of 18 had to be vaccinated.

In Indonesia, individual local authorities were empowered by the government to punish those who refused vaccination.

Civil servants had to be vaccinated in Pakistan. The unvaccinated had to deal with great restrictions, for example they were forbidden to enter public buildings.

In the United States, hospital employees had to be vaccinated. Only vaccinated people were allowed to study at universities. The unvaccinated had to take into account restrictions in individual states and cities.

In Russia, the unvaccinated had to reckon with many restrictions, for example in services.

Objections to Vaccination

Despite the indisputable benefits of vaccination, it is safe to expect that resistance to vaccination will continue (16). In addition to a number of non-scientific arguments, contraindications and health problems caused by vaccinations, legal arguments will also be used. These reservations are based on the constitutional frameworks of developed countries. Conscientious objection can be applied against compulsory vaccination.

In general, it can be stated that mandatory vaccinations for adults are usually used as emergency measures for specific groups of people. There is general compulsory vaccination against tetanus, but in this context, it is necessary to mention that there is no transmission of infection from person to person in case of tetanus. So it is not about creating herd immunity.

A possible religious objection to vaccination should be mentioned. Basically, no major religion currently prohibits vaccination.

Some conservative Christian groups oppose mandatory vaccination because vaccination enables risky sexual contact, while the possibility of disease discourages risky sexual contact.

Islam and Judaism, religions with dietary prohibitions that consider certain animals unclean, make exceptions for medical treatments using material derived from those animals. This ap-

proach within these religions is not universally accepted without exception. For example, vaccination is refused in some areas of Indonesia (Aceh) due to concerns about the presence of pig derivatives in vaccines. The Catholic Church has taken a critical stance on the use of foetal tissue in the manufacture of vaccines. The cell culture media of some viral vaccines and rubella vaccine virus are derived from tissues taken from aborted foetuses. The Vatican has concluded that as long as no alternative is available, it is acceptable for Catholics to use such a vaccine. At the same time, however, the Vatican stated that this is an unfair alternative choice that must be removed as soon as possible.

It may be noted that the CIA used a fake hepatitis vaccination campaign in the hunt for Osama bin Laden, and the Taliban used to label vaccination as an American conspiracy against Muslims, which is why the CIA decided not to continue using vaccination as a cover. The CIA practise of using a fictitious vaccination as a cover for an intelligence operation has severely damaged international efforts to combat infectious diseases. In this matter, twelve deans of major US schools of public health sent a letter of protest to then US President Obama against the CIA's actions (17, 18).

It is true that from the point of view of the constitutionality of democratic countries, secular and religious conscientious objections against vaccination are equivalent. For example, in the Czech constitutional framework, the opinion is held that four conditions must be cumulatively met in order to apply the conscientious objection.

- The constitutional relevance of the statements contained in the reservation of conscience.
- The urgency of the reasons given by the bearer of fundamental freedom to support his reservation.
- Consistency and persuasiveness of the given person.
- Social impacts that an accepted conscientious objection can have in a specific case.

All four conditions must be met cumulatively (19).

Compulsory Vaccination and Recommended Vaccination

From the above, it is quite clear that recommended vaccination, if the recommendation is respected, is more useful than mandatory vaccination. When the recommendation is not respected, the possibility of compulsory vaccination cannot be completely avoided.

Protecting patients from infection from medical personnel will always be one of the priorities of health care provision.

Re-vaccinations, Post-exposure Vaccine Prophylaxis

Revaccinations are necessary against tetanus as mentioned above. Post-exposure vaccine prophylaxis should also be mentioned as a means of post-exposure prophylaxis. Specifically, it is typical of rabies prophylaxis following an injury caused by a bite from rabid animal. This matter needs no further elaboration, as most European countries are rabies free. The matter may involve travellers to countries with rabies occurrence or outbreaks.

Need to Protect Workers at Biological Risk and Designated Patients

The medical laboratory workers, healthcare workers and some patients or clients of medical or social facilities are in permanent threat of infectious diseases and therefore preventive vaccinations are essential for them. Due to the high danger of selected infectious diseases, the vaccination may be essential for laboratory workers and healthcare workers in contact with the infection and for elderly seriously ill patients in healthcare facilities and clients of social facilities.

It is a fact that despite the indisputable successes of vaccination in the prevention and therapy of infectious diseases, the questioning of vaccination does not decrease and persists.

CONCLUSIONS

Vaccination of medical personnel appears to be necessary. Vaccination must protect both medical or social staff and, above all, patients or other persons in their care.

Worker education is very important, as informed voluntary vaccination against the infectious diseases against which vaccination protects is very appropriate and makes the provision of health and social care much easier.

In the case of refusal to be vaccinated, compulsory vaccination cannot be avoided. Employment legislation allows and must allow for non-immunised workers not to come into contact with at-risk patients and clients. At the same time, the ability to ensure that workers posing a risk do not work in health and social care is essential. Punishment of unruly staff must be possible and effective, but for objective reasons it must be a marginal means.

It must be emphasized that it is highly advisable that the atmosphere in society be conducive to submission to immunisation since the use of coercion must be a means of last resort and little used. Punishment of unruly staff must be possible and effective, but for objective reasons it must be a marginal means. Mass or widespread opposition to vaccinations could jeopardise the provision of health and social care and the health and lives of patients and clients. Large-scale resistance cannot be overcome by the state through coercion (force) without endangering the lives and health of those being treated or cared for.

Therefore, in the event of substantial staff resistance to vaccination, the use of coercion would be problematic.

The situation is different for patients and clients of health and social care institutions. Due to their usually high age and poor health status, it seems virtually impossible to force them to be vaccinated. Effective sanctions, including eviction from care facilities, are not well suited to these persons, as such sanctions would put their lives at risk. It is therefore necessary to persuade persons to volunteer and to opt for other health-preventive measures where possible.

Conflicts of Interest
None declared

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