

Achieving a Maximum Level of Vaccination for Medical Students: a Rigorous Ethical and Legal Framework Procedure

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Abstract The Faculty of Medicine and Health Sciences (FMHS) of the University of Sherbrooke has observed year after year, that certain students have not started and or completed their immunizations for common infectious diseases, which in effect makes them inadmissible for their clinical internships in healthcare establishments. The program administrators have posed a series of questions on the best way to proceed with these students as, a certain number remain reluctant to vaccination. They are often confronted with ethical dilemmas, are not necessarily comfortable with their rights and responsibilities and wish to be guided throughout the process. This article aims to put forth a procedure that would be put in place to support the administrators in a way for them to obtain a more favorable vaccination level for all of their students in the most reasonable amount of time possible. The interest of the procedure is to move forward in a few simple and well defined steps that are supported by a rigorous legal framework, while respecting the rights and freedoms of the students. It is also designed so that it could be replicated in other faculties of medicine.

Keywords Student vaccination · Student immunization · Faculty of medicine and health sciences (FMHS) · Legal and ethical framework · Structured procedures

Introduction

With the arrival of a new generation of students, the Faculty of medicine and health sciences (FMHS) of the University of Sherbrooke has been confronted with a new reality. Some students are not immunized against a certain number of common infectious diseases, such as diphtheria, tetanus, whooping cough, polio, measles, rubella, mumps, hepatitis B and tuberculosis when they begin their training (Direction générale de la santé publique 2005; Faculté de médecine et des sciences de la santé, Formulaire d'immunisation). This problem has been evident to the faculties of medicine, nurse sciences and rehabilitation for a number of years. Some of the data collected by the head of the pre-doctoral program of medicine from the FMHS recently indicates that out of 213 students, 19 presented an incomplete immunization status in autumn of 2012, thus at a stage

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where these students would normally begin their clinical practicums in a healthcare establishment. We can foresee that this situation will persist in the future and that it will most likely increase in magnitude with the arrival of new groups of students. These students present a very different set of values, professional baggage and sociocultural issues that are very different from prior generations. They show a much larger interest in taking part in international practicums, have a higher inclination to travel abroad and as a result are more likely than ever before to be exposed to infections. When compared to prior generations, these students actively use information technology, such as the internet as a support of their training and therefore are much more likely to be solicited by negative messages concerning vaccinations. (Hartjes et al. 2009; Robichaud et al. 2012; Zimmerman et al. 2005).

The institutional directors of these programs have been capable of observing these tendencies. They find themselves posing questions on the best possible method of intervention with their non-vaccinated students and wish to be guided throughout the process. This has incited the university to pose a reoccurring question being; how do we boost immunization against common infectious diseases among students who need to do a clinical internship in order to complete their training? This article will first expose how the FMHS has dealt with the students in these programs concerning immunizations in the past up until the present date. It will then deal with the ethical and legal considerations which prevail in Quebec in regard to immunization and finally, it will detail a new procedure put in place to obtain the maximum level of vaccination for students within a reasonable amount of time.

Immunization of Students in the Healthcare Sector

Vaccination is considered one of the most effective methods to protect healthcare workers and the population that they serve (Direction générale de la santé publique 2005; Lindley et al. 2011; Protocole d'immunisation du Québec 2009). On a world scale, immunization has saved lives and contributed to the avoidance of numerous morbidities associated with certain infectious diseases. It has allowed for the eradication of smallpox, a 99 % global reduction rate of poliomyelitis and caused a significant decrease in morbidity, disabilities and mortality rates in diphtheria, tetanus, whooping cough and the measles. According to the World Health Organization (WHO), vaccination can be attributed with the aversion of over 2 million deaths in the year of 2003 alone (Protocole d'immunisation du Québec 2009). In Canada, the effort to immunize the population has paid off as there are very few individuals who are infected with these common infectious diseases. Table 1 shows the impact of infantile vaccination in comparing the number of infectious diseases reported annually in Canada in 2006 with those reported before the emergence of different vaccines. The results show that immunization has sharply decreased the number of infected cases in the last 50 years (Agence de santé publique du Canada 2006) Table 2.

It is logical to assume therefore that healthcare workers are immunized now more than ever before against common diseases, which permits them to assure the safety of both patients and the caregivers. However, certain data indicates the contrary, that vaccination coverage has not yet attained an optimal level among these workers (Lindley et al. 2011; Robillard 1997; Direction générale de la santé publique 2005). A Quebec study revealed in 1997 that the rate of coverage among healthcare workers was far from optimal concerning the vaccine against the hepatitis B virus. The study indicates that only 70 % of nurses and laboratory technicians were vaccinated compared with only 43 % among nursing assistants (Direction générale de la santé publique 2005; Robillard 1997). More recent Quebec data indicates, part in part, the low intention rate of vaccination in nurses within healthcare facilities, evaluated at 33 % against the H1N1 virus and at 57 % against the seasonal flu (Direction de la santé publique 2009). The

Table 1 Number of annual cases if infectious diseases in Canada and after childhood immunization

Diseases	Year at the start of the vaccination	Number of annual cases before vaccination	Number of annual cases in 2006
Diphtheria	1930	9,000	0–1
Whooping Cough	1940	~ 20,000	~ 5,000
Tetanus	1940	40–50 per/year	1–10
Polio	1955 (injectable) 1962 (oral)	1,500	None
Measles	1970	200 000 to 300 000	~ 200
Rubella	1971	~5,000	< 30
Mumps	1976	~ 43,000	~ 200

Agence de la santé publique du Canada (2006) *Guide Canadien d'immunisation*, 7^e édition, Rapport national sur l'immunisation au Canada, *Relevé des maladies transmissibles au Canada*, 2006, vol. 32S3, p. 1–49

risk associated with less than optimal vaccine coverage among these workers is well documented. The outbreak of preventable diseases amongst these workers has been associated with an increased morbidity and death-rate among patients, an increase in absenteeism at work, an excessive use and strain on the resources of the establishment and to a disruption in healthcare services (Bonebrake et al. 2006; Bryant et al. 2006; Weber et al. 1991). Therefore, from the moment they begin their activities with patients in healthcare facilities, the students or trainees share the same risk of transmitting infections as healthcare workers. In 1990, an American and Canadian study indicated that in 9 % of participating health departments, the students in medicine were the leading cause of a measles and rubella epidemic as a result of nosocomial transmission (Poland and Nichol 1990; Weber et al. 1991). More recently, an outbreak of whooping cough which occurred in 2005 was the cause of illness in the students and supervisors of an American baccalaureate program of nurse sciences and resulted in the temporary cancellation of clinical practicums so as to prevent further transmission in their environment (Matthews et al. 2008).

We do not currently have any Quebec wide statistics on the proportion of medical and health science students who are not vaccinated. Although this study was carried out in a different socio-cultural context, the following European study permits us to recognize the seriousness of the problem. The German study which took place in 2004 was comprised of 804 medical students during their first two years of training and revealed that 29 % of them had a less than sufficient level of protection against tetanus, 33 % against diphtheria, 44 % against polio, 68 % against the mumps, 76 % against rubella and 98 % against whooping cough (Schmid et al. 2004). Our observations and that of the program directors of the FMHS indicate that, year after year, a certain number of students who are entering these programs are not vaccinated. Furthermore, a certain number of these students are slow when it comes to undertaking the process or are simply reluctant to commence the process altogether. When these students are out on their clinical internships this situation poses a definite problem.

The program administration has traditionally managed this situation on a case by case level and has seen very mixed results. They have since concluded that this procedure was less than ideal and should be improved upon. The new proposed procedure has been put in place in order to respond to a series of questions that have been raised on a reoccurring basis by the directors. Those concerned wonder about the best method in which to proceed when trying to initiate vaccinations for those who remain unvaccinated or at least how to begin their vaccination within an acceptable amount of time so that these students can meet the requirements for admission to their internships in healthcare facilities. They are often confronted with ethical dilemmas and are not necessarily

Table 2 Procedure steps of student immunization of the Faculty of medicine and health sciences of the University of Sherbrooke (as a condition of access to clinical placements)

Steps	Information/Action to take
1. Provide information to any person filing an application of admission to specific programs	<ul style="list-style-type: none"> ●Vaccine information is submitted in a document as a condition to enrollment (the student must meet the immunization requirements against certain infectious diseases as defined by the program faculty). ●Awareness of duration of time for immunization process (the process can be long, certain vaccines are given in more than one dose) and the importance of beginning the process as early as possible. ●Information on the available resources concerning vaccination (In Quebec it is possible to be vaccinated free of charge in the local health and social services centres (CSSS) available in all regions).
2. Provide more detailed information to newly admitted students of the targeted programs	<ul style="list-style-type: none"> ●More detailed information on the requirements of the immunization program, such as the list of the required vaccinations, the form to be filled out by the healthcare official, etc.... ●Reminder of the available resources in order to be vaccinated and a suggestion to visit the Health and Social Services Government website in which the resources where one can be vaccinated are made available (list and address of CSSS). ●Identification of non-vaccinated students and organization of a meeting with program director. ●Information with the benefits and risks associated with vaccination. ●Explanation of the consequences associated with the refusal to be vaccinated (no internship, therefore no diploma).
3. Individual meetings between the program administration and nonvaccinated students upon their arrival into the program	<ul style="list-style-type: none"> ●Reminder of the steps that were issued in the previous stage (on the program's requirement of immunization, information on existing resources regarding vaccinations and on the Government website of Health and Social Services). ●Communication in writing by the students to the director of the program explaining his decision to refuse vaccination.
4. Meeting between program administrators and uncooperative students and the application of possible consequences	<ul style="list-style-type: none"> ●Transfer of the student's decision to refuse to be vaccinated from the program administration to the department head and the set-up of a face to face meeting with the department. ●Reminder of consequences of refusing vaccination (no internship, therefore no diploma).

informed of their rights and responsibilities when it comes to students who outright refuse vaccination. The program administration does not always know the proper way to react when it comes to these students. They question the authority of the educational institution on the matter and want to know how far they can go without infringing on the rights and freedoms of students while ensuring that their actions are being carried out in a respectful manner. An examination of the legal framework that surrounds immunization in Quebec responds to these questions.

Legal and Ethical Considerations in Quebec Surrounding the Immunization of Medical and Health Science Students

Immunization is a sensitive topic as it deals with notions of consent, free will and respect for one's rights and liberties. The administration of the FMHS is well aware of their duty to respect

the personal dignity of the students and the need to establish confidentiality in doing so. They remain concerned however on how to offer a support to the students in consideration of their rights and liberties. Legal documents in Quebec were examined with the goal of educating the program directors on the obligations of the teaching institution in relation with the rights and freedoms of the individual.

Firstly, these legal documents indicate that the administrators concerns are well observed by the Civil code and the Quebec charter of rights and freedoms. The Civil code underlines that no one can be subjected to treatment or care without their consent, with the exception of urgent care (Civil Code of Quebec, S.Q. 1991). In order to be valid, their consent must be voluntary and informed, must have been obtained without any form of pressure, have been accepted by an individual who has been informed of his rights and proposed once the suitable information has been issued and properly understood. The stipulations of the Civil code and the Quebec charter of rights and freedoms ensure integrity and freedom of choice which implies that health care employees have the right to consent or not, to immunization (Bernier et al. 1997). Immunization is not compulsory in Quebec, under articles 3, 10 and 11 of the Civil code and under the Quebec [Charter of Human Rights and Freedoms](#). It is categorized as a voluntary measure of personal protection (Direction générale de la santé publique 2005). The consent must be clear and to do so, the individual, or their legal representation must be able to make a choice while having an informed knowledge of the risks associated with immunization and the possible side effects whether they be frequent or rare. The individual must also have instructions to follow in case of vaccine reactions and should be informed of the potential consequences of refusing vaccination (Protocole d'immunisation du Québec 2009). The consent should therefore be accompanied by the most thorough information possible on the implications of accepting or refusing vaccination.

When students are not vaccinated, the program administration can rely on the legal framework of the following articles. They can base themselves on article 10 of the *Organization and management of institutions regulation* and article 619.34 from *An act respecting health services and social services*. These articles stipulate that Quebec healthcare establishments have an obligation to provide a secure environment for healthcare workers and their patients (Protocole d'immunisation du Québec 2009). The establishments which welcome students on their clinical practicums have as a result necessities and obligations which would restrict the right of integrity of an individual (article 1 and 5 of the Quebec [Charter of Human Rights and Freedoms](#) and article 7 of the Canadian charter of rights and freedoms). They are subject to various laws, regulations or protocols from the Quebec Ministry of Health and Social Services (MHSS) such as the Immunization protocol of Quebec (le Protocole d'immunisation du Québec (PIQ) which is the reference in the field (Direction générale de la santé publique 2005). The PIQ groups together the necessary technical and scientific information concerning vaccinations and the recommendations have therein been derived from the latest scientific evidence and product monographs (Protocole d'immunisation du Québec 2009). The protocol identifies a certain number of vaccines against *common* infectious diseases and recommends that healthcare establishments assure that their employees are vaccinated against these diseases. Healthcare establishments are required to respect the recommendations of the PIQ and therefore required to assure that those working for them follow the recommendations concerning vaccinations. The PIQ defines a worker as all people who provide care for patients or who work in an establishment which provides care to patients and include students in their definition of worker. As well as the worker, the student must respect the recommendations of the immunization protocol and has the responsibility to protect himself and those in these establishments. Similar to the worker, the student must have written proof of his immunization (Direction générale de la santé publique 2005).

Under various codes of ethics, healthcare workers have certain obligations and duties towards their users (Protocole d'immunisation du Québec 2009). As stated in the professional code of ethics, the healthcare worker has certain professional obligations, and his refusal to be vaccinated could be considered as a failure to meet these obligations. The worker must be aware that he has the responsibility to provide the best quality of care possible. Otherwise, his refusal to be vaccinated could be seen as a breach of professional duty of patient care. The establishment can however terminate a health care employee on the grounds of their refusal to be vaccinated but must take the most appropriate administrative measures in each case first. They can deny the worker access to certain clients, relocate them to a different service or department or assign them to completely other functions. All healthcare workers must be informed of the risks they run if they choose to refuse vaccination and of the consequences associated with this refusal, including the reality of a possible need to change positions or be revoked from the workplace during an outbreak (Protocole d'immunisation du Québec 2009).

The preceding legal and ethical framework allows program directors to define the terms of common infectious diseases as diphtheria, tetanus, pertussis, polio, measles, rubella, mumps, hepatitis B and tuberculosis. The regulation does not deal with specific seasonal outbreaks such as influenza. However in Quebec, the Direction of Public Health (Direction générale de la santé publique 2005) suggests that healthcare establishments put certain mechanisms into place to ensure the best annual vaccinations to the individuals who have a high risk of complications. These measures also apply to students and trainees, therefore the faculty could be advised by the DSP to recommend a vaccine to students who are not yet on their clinical internships during a vaccination campaign, but who would be later on during the flu season.

The legal documentation does not offer clear guidelines on the steps to take should there be a new outbreak in which a more recent vaccine would be available. The legal framework does however take into consideration that, for the protection of patients and employees, a healthcare establishment would be justified to remove a healthcare worker, including a student or trainee who refuses vaccination if it's proven that the infection poses a risk to the establishment's personnel and users, in reference to article 9.1 of the [Charter of Human Rights and Freedoms](#). Article 9.1 of the charter allows for a derogation clause which states that it could be possible to override the rights on an individual in order to protect the good of the collective community. However, similar to a case in which someone is unvaccinated against a common infectious disease, the employer must first try to relocate the person before removing them.

Proposed Operation for Optimal Vaccination Programs in Health Sciences

The FMHS has put a new procedure into place which takes the legal and ethical framework on immunization into account. This procedure aims to enable the administration to obtain the best possible vaccination rate for their students in respecting not only their duty and obligations but also the human rights of their students. Immunization would therefore become a requirement for admission into the internship programs for students of medicine, rehabilitation and the faculty of nursing. This new rule would facilitate the work of the administrators in stipulating that in order to be admissible for an internship the student must first meet the immunization requirements against the common infectious diseases. Therefore, these programs should clearly set their minimum requirements in concordance with those identified by the Immunization Protocol of Quebec (Protocole d'immunisation du Québec 2009).

This procedure is composed of a few simple and well defined steps which aim to provide an approach that deals with new non-vaccinated students. It would permit the administration to better plan the vaccination process which can require a certain amount of time, since vaccines

require more than one dose for maximum efficiency (Cohen et al. 2007; Protocole d'immunisation du Québec 2009).

In respect to the Civil code and the Quebec charter of rights and freedoms as well as responsibilities and legal obligations of health facilities, the procedure is based on the most thorough information possible, access to resources and the monitoring of results. It is comprised of the following steps:

1. Provide information to any person filing an application of admission to specific programs (immunization requirements for work internships).
2. Provide more detailed information to newly admitted students of the targeted programs (places where they can be vaccinated).
3. Individual meetings between the program administration and non-vaccinated students upon their arrival into the program (risks and benefits related to vaccination and the consequences of refusal, that being; refusal to clinical internships).
4. Meeting between program administrators and uncooperative students and the application of possible consequences.

Provide Information to any Person Filing an Application of Admission to Specific Programs

The documentation will be issued to the student from the moment that they first apply to one of the concerned programs and have any contact with the Faculty. It will be clearly indicated that vaccination is a requirement for internships. The documentation clearly indicates the conditions necessary for immunization that must precede the entrance of the future student. It will be accompanied by favourable arguments in support of immunization and describe how and where they can obtain them. It will contain a list of the vaccines that are necessary in order to fulfill the immunization requirements. The future student will be informed that they must be immunized before beginning their internships in a healthcare establishment and that it is preferable that they begin the vaccination process as soon as possible as it can be a long term process. We will submit all of the advantages of immunization and inform the student of the importance of completing or at least initiating the process of vaccination so as to be emitted into their internships.

We invite the future student to initiate the vaccination process in a healthcare establishment in their region. We provide information on the establishments which are likely to offer the service such as the Local Community Service Centres (CLSC) and other healthcare establishments. These establishments will be required to offer free vaccines to individuals who will be future healthcare workers. We will indicate to all future students from these selected programs that they must provide and send a vaccination record to their program administration.

Provide More Detailed Information to Newly Admitted Students of the Targeted Programs

Once the student is accepted into one of the targeted programs of the Faculty, we will immediately send out welcoming documents which contain the vaccination protocol of the Faculty. It will then inform the students on the details of the requirements of the vaccines and will clearly state that he must meet these requirements as soon as possible as it is a program requirement for the admission of his clinical internships. We will invite the non-vaccinated student to take control of the situation themselves, while indicating that to receive their vaccinations they can go to any healthcare centre in the region, including that of the University of Sherbrooke. The student has the obligation to supply the program administration

with written proof, signed by a healthcare professional of their vaccination status. The student will be informed that the data of the individual's vaccination will be accumulated in a computerized system in order to provide a careful and meaningful monitoring of the process.

Individual Meetings Between the Program Administration and non-Vaccinated Students Upon Their Arrival into the Program

In the case where a student refuses or is slow to begin the vaccination process, contact will automatically be arranged with the program administration. We will ensure that the students understand the importance and benefits of vaccination. We will guide them on how they can proceed in order to fulfill this program requirement. We will explain the consequences that they are risking in the case that they refuse to conform.

Meeting Between Program Administrators and Uncooperative Students and the Application of Possible Consequences

In the case where a student refuses vaccination despite all of this, a meeting will automatically be organized with the program administration, preferably in a face to face setting in hopes of instilling confidence. During this meeting, there will be a validation of the information that was previously received. The program direction will remind them of the professional code of ethics which underlines the importance of protecting the patients. We will re-explain the consequences that are at stake in refusing to conform to this requirement. If the student continues to refuse the necessary immunizations, the direction will have no other choice but to move forward with their last resort and deny him any access to an internship while explaining the consequences of his refusal. As the internships in healthcare establishments make up a necessary component of the program, the student will then be informed that he will not obtain his classes or his diploma by the fact that he will not have completed all of the required elements of his university program. This final administrative and legal tool will invite the student to think twice about their decision.

Discussion

It is absolutely essential to obtain the maximum level of vaccination among all students studying in medicine and in health sciences, for both their own protection and for that of the patient. Healthcare establishments constitute a likely environment for infectious diseases to spread without the use of vaccines. We know, firstly, that the patients can be a source of transmission of diseases for workers and that the opposite is also true in that the workers themselves are at risk of transmitting diseases to the patients as well (Burden and Whorwell 1991; Poland and Nichol 1990). The transmission of preventable infectious diseases from hospital employees to patients has been linked at times with the death of patients (Weber et al. 1991). Therefore preventative measures such as complete immunization are essential and need to be set in place on a continuous basis (Lindley et al. 2011; Protocole d'immunisation du Québec 2011; Weber et al. 1991).

The interest of the new procedure at the FMHS is to have a series of different steps that can be reproduced in other faculties of medicine in Quebec and elsewhere which rely on specific legal and ethical provisions. Therefore it could be considered that program administrations in other Canadian provinces could learn from the process and steps provided here and apply them in their communities, while adapting the specific legal and ethical framework surrounding the

immunization as well as the vaccination programs that have been put into place in their province. Having a well-defined procedure will facilitate the work of program directors, help them achieve a maximum level of vaccination of their students and be helpful when dealing with outbreaks. The administration will feel that it has the right to demand that their students meet the vaccination requirements in order to be granted access to their internships and will have the necessary tools to achieve it. We know, for example, that voluntary vaccination measures that have been taken against the seasonal flu in Quebec and elsewhere in the world have not resulted in a significant increase in resistance (Institut national de santé publique 2006). We can assume that if they had received in hand, a clear procedure with steps to follow, the directors of the programs of the FMHS would have felt more comfortable in requiring the students to be vaccinated in the case of an outbreak and in consistency with the legal and ethical principles that were previously cited.

The steps that the procedure has proposed are important and have been developed in light of the legal and ethical frameworks which surround the immunization of Quebec students. It aims to advance the student into the final stage of vaccination, and to deny access into clinical internships for those who remain uncooperative. The procedure set out to provide the most thorough and objective information possible about the benefits and side effects of vaccines while remaining consistent with the recommendations of the Quebec civil code on consent. It ensures that the pertinent information has been transmitted and properly understood. Constant returns on this information are made throughout the entire procedure while taking into account the decision making process of the student (Faresjo et al. 2012). As recommended by certain American universities, the procedure informs the student on the existing resources that they can benefit from to get vaccinated and takes care to provide the student with a range of possible establishments (Diekena et al. 1996).

Towards the middle of the 1980's, an American study carried out by Sun et al. (2001) brought to light a significant increase in programs that have been implanted in medical and health science teaching establishments for the purpose of satisfying the requirement of immunization. The researchers report that surveys revealed that from 1984 to 1986 there was an increase from 16 % to 55 % in these new programs. More recently, Lindley et al. (2011) had made the same observation when he reported a substantial increase in immunization policies in faculties of health sciences. Despite this, a certain discrepancy still exists in regards to the content of immunization policies. The situation has been raised for several years already and yet it is still relevant today (Lindley et al. 2011). An American and Canadian study indicates that at the beginning of the 1990's about 28 % of the participating faculties of medicine did not have any policies regarding preventative vaccination. Researchers observed an important range in the components of the immunization policies that have been put in place, particularly with respect to the type of infection, the recommended period or mandatory vaccinations, to the means of sensitization that are established, access to vaccines or finally to the control methods (Rowan et al. 1994). The establishment of programs or of well-defined administrative strategies is widely considered as the most effective mechanism to promote the most optimal levels of immunization in students (Kanagasabai et al. 2007; Poland and Nichol 1990; Schmid et al. 2008). In a German study of 242 medical students, researchers observed the beneficial effects of implementing a vaccination program; they witnessed an augmentation that grew from 50 to 96 % in preclinical students from the period of 2005–2007 in the vaccination rate against the hepatitis B virus. (Schmid et al. 2008) A Canadian study recently reported a significant increase in vaccination rates from the years 2003 to 2005 against hepatitis B, the measles, rubella, chicken pox, and tuberculosis following the establishment of an immunization protocol for medical students from a faculty in Toronto. To achieve the most effective results, Poland and Nichol (1990) identified a number of key elements of these

programs. They must clearly specify the types of vaccines that are required, establish a mandatory vaccination with sanctions in the case that it is refused, establish a monitoring system and must remove any impediments to the vaccinations. Kanagasabai et al. (2007) added that a permanent implementation of measures to identify students who do not adhere to vaccination be put in place, furthermore he outlined the necessity to provide an availability of the appropriate resources and the importance of arranging a support system during the vaccination process. Other researchers have made significant advancements and put forward insight on infection, the associated risks and the importance of immunization to combat these risks (Allen et al. 1985; Sun et al. 2001). The new procedures that the FMHS have put forth are in accordance with this written research (Allen et al. 1985; Kanagasabai et al. 2007; Poland and Nichol 1990; Sun et al. 2001).

Conclusion

The number of vaccines has increased considerably in the last two decades and research indicates that this situation will continue to worsen (Lindley et al. 2011; Streefland et al. 1999). The problems associated with vaccination will occupy a more important place in the faculties of medicine and health sciences. Therefore, well defined measures will be increasingly necessary, especially considering the arrival of new generations of students that hold a new set of values and possess different opinions on the matter compared to prior generations. In this new context, program directors will be particularly challenged. They will need to focus on the development of an institutional mindset that concentrates on raising awareness and accustoming those concerned to the reality of vaccinations (Lindley et al. 2011), considering they will be required to respond later to certain professional obligations, notably the safety of their patients. This article aims to provide the directors of medical and health science programs with a well-established procedure that can achieve a maximum level of vaccination of their students under the legal and ethical framework that defines the area of jurisdiction of the institution. These program directors can now reference a functional multi-step procedure, in order to facilitate their work and ensure that it is done in a manner that respects the rights and individual freedoms of their students.

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