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IFMSA Policy Document Integrity and transparency in medical education

Proposed by ANEMF - France and IFMSA-Egypt.

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Policy Statement

Introduction:

Conflicts of interest in the health sector have been a growing concern for the medical community but also the public at large, for the past few decades. Namely, when it comes to the influence of the pharmaceutical industry on healthcare and research, several events highlighting breaches of integrity have already occurred, sometimes leading to serious consequences for patients. Building on large controversies, commitment towards a more transparent and ethical relationship between health professionals or researchers and the pharmaceutical industry has emerged as a widely accepted way to avoid conflicts of interest. Yet, the influence of private interests on the medical education stays important, despite numerous articles and official reports shedding light to it. Measures to prevent breaches of integrity in medical education are yet to be implemented in many parts of the world.

IFMSA position:

According to the International Federation of Medical Students' Associations (IFMSA), conflicts of interest may hinder the quality standards of education in medical schools, as they interfere with a linear transmission of correct and valuable knowledge of health sciences and medical care ultimately harming patients. The influence of the pharmaceutical industry can lead to inadequate prescription or biased research outcomes, which can harm patients and bears heavy consequences for health systems at large. It is necessary to raise awareness and limit conflicts of interest and to train healthcare students on developing their critical thinking. Thus, IFMSA firmly supports a careful delineation of commercial and medical interests and therefore the highest standards of transparency to allow students to exercise their critical sense and limit the impact of influences they have been subjected to during their medical curriculum for their future practice.

Call to Action:

Therefore, IFMSA calls on **governments** to:

- Adopt policies to ensure maximal transparency regarding the links between healthcare professionals or researchers and the pharmaceutical industry, such as open registries for all gifts and resources provided by pharmaceutical companies.
- Adopt policies to ensure ethical funding of medical schools regarding pharmaceutical firms' sponsorships.
- Adopt policies to make International Nonproprietary Name the formal way to prescribe medication.
- Provide systematic data on the professional and private interests between health professionals and the pharmaceutical industry and make it freely available to the public.
- Monitor the interactions between medical schools and the pharmaceutical industry.



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- Carry out more research on the influence of pharmaceutical industry on medical education.

Universities and medical schools to:

- Adopt financing plans which eliminate funding from pharmaceutical and medical equipments' companies
- Implement policies to :
 - prevent conflicts of interests in their institutions, especially forbidding the presence of pharmaceutical firms' representatives in their boards.
 - promote transparency and integrity among educators and researchers, by mandating declarations of conflicts of interest.
 - forbid the advertisement of any pharmaceutical firm or brand by the faculty.
 - promote the utilization of International Nonproprietary Name for the prescription of medication.
- Promote Open Access and Open Educational Resources as a way to share the most up to date knowledge, to prevent the need to seek financial or educational support from third-parties.
- Ban the presence of pharmaceutical firms' commercial representatives inside their infrastructures, especially interacting with professionals and students.
- Forbid teaching by pharmaceutical company representatives.
- Carry out more research on the influence of pharmaceutical industry on medical education.

Medical teachers to:

- Declare their private interests before every interaction (lecture, workshop) with medical students.
- Deliver an education based on the most contemporary, evidence-based, and independent scientific evidence, regardless of any form of support or content provided by third parties.
- Use the International Nonproprietary Name of medications in all their activities, and use it as the primary teaching tool for medical students.
- Consider refusing funding from pharmaceutical companies.

Teaching hospitals (and other healthcare facilities teaching medical students) to:

- Allow and promote the utilization of International Nonproprietary Name for the prescription of medication.
- Ban the presence of pharmaceutical firms' commercial representatives inside their infrastructures, especially interacting with professionals and students.
- Ensure no interaction with a pharmaceutical firm's commercial representative can ever be mandatory for a student.

IFMSA National Member Organisations (NMOs) and medical students to:

- Support and initiate projects promoting transparency and integrity in medical education, or other initiatives aiming to improve the quality of prescription.
- Consider refusing funding from the pharmaceutical industry.
- Advocate for better transparency and integrity in medical education, as a condition for having an education free of bias and influence.



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- Advocate for changes in the medical curricula to integrate an education to research, including the development of critical judgment skills (especially in regard to clinical research).
- Carry out more research on the influence of pharmaceutical industry on medical education.





Position Paper

Background information:

Each and every health professional is subjected to links of interests, either professional or personal, that can lead to making subjective assessments of a given situation. These links of interests can in turn contradict other objectives, private or public, and eventually become conflicts of interest when transmission of information is involved. Medical education is a particularly susceptible place where such breaches of knowledge and information transmission can easily become conflicts of interest targeting students, thereby future practitioners.

These two notions are closely related yet distinct concepts, and not all link of interests constitute a conflict of interest. Moreover, a conflict of interest never refers to a confirmed bias but always implies a doubt concerning information, when crossed with a link of interest. This suggests that in order to enhance the impact of conflicts of interest in the medical area, transparency and sharpened critical thinking are necessary.

With the aim of better prescribing and treating for the sake of their patients, medical students and physicians should be aware of how to recognise, understand and respond to pharmaceutical promotion in order to avoid the negative impact of conflicts of interest on their practice. [5]

Discussion:

1. Importance of gathering an accurate knowledge

Pharmaceutical industry is a key player in health and has a significant role in healthcare activities but it meets different goals. Indeed, it has to combine its necessary role in public health and its need to respond to an economic narrative. The World Health Organisation described in 1993 “*an inherent conflict of interest between the legitimate business goals manufacturers and the social, medical and economic needs of providers and the public to select and use drugs in the most rational way.*”

Nowadays it has been observed that it's one of the most profitable sectors in the world. [1] If this economic benefit is favoured, it consequently makes sense to ask ourselves if it would have an impact on the health system and its original purpose: aim for the most efficient care for patients. [2] This economic narrative encourages industries to promote and use marketing tools that may be contradictory with the EBM model which is based on three pillars: clinical judgment, patients' values and preferences and relevant scientific evidence. [3]

It means that physicians, in order to act accordingly to their function of caregivers, must know where to find the right knowledge and sources of information and how to use them to prescribe better.

In 1994, the WHO published a practical guide on rational prescribing and demonstrated that prescribing a medicine is part of a process that includes many other components. [4]

Among them it describes the advantages and disadvantages of different sources of drug information and raises questions on pharmaceutical sources of information and their reliability, as it often emphasises only the positive aspects of products and overlooks or gives little coverage to the negative aspects. This kind of source of information can be



biased towards certain products and lead to irrational prescribing. It doesn't mean that commercial information should not be trusted, but it has limitations and should be used with other objective sources. That is why they encourage students and professionals to get information from other things like medical journals, drug bulletins, pharmacology or clinical reference books, therapeutic committees, etc. and mostly to keep up-to-date.

Rational treatment requires a logical approach and a common sense. A key point to this is to base our reasoning on independent and unbiased sources. It is also important to know how to assess the strength of the evidence and its applicability and relevance to the situation we are facing. To appropriately select their sources, physicians must understand the different forms the pharmaceutical industry can take, how to recognise them, and to have critical thinking towards them. [5] [27]

2. Understanding how pharmaceutical promotion works

The influence of the pharmaceutical industry on prescription habits of physicians is channeled through the different means used by the industry for promoting their products or their company. The main aim is to affect the physicians' usual prescribing so they can prescribe the medicine they're promoting. Not only doctors are targeted, medical students are too as they are future prescribers. In order to ensure an efficient care system, it is important that physicians understand how pharmaceutical promotion works so they can be critical and thorough with the information they receive.

The marketing techniques used by the pharmaceutical industry to influence prescribing habits of physicians are numerous, including but not limited to : [5]

- Sponsoring key opinion leaders
- Financing continuing medical education
- Spreading free samples
- Sponsoring clinical practice guidelines
- Ghost writing

Industries have already diverted drugs from their original indication in order to sell more. Physicians are allowed to prescribe medication for different uses on their own will but pharmaceutical companies are forbidden to promote their products outside of the original recommendation.

This kind of drift can bear heavy consequences for the management of patients. It has been the case with the MEDIATOR™ (Benfluorex) scandal in France in 2010 [6] and NEURONTIN™ (Gabapentin) in the US in the late 1990s. [7]

Indeed, physician-pharmaceutical industry and its sales representative's interactions and acceptance of gifts have been found in studies to affect physicians' prescribing behaviour and are likely to contribute to irrational prescribing of the company's drug. Thus an intervention in the form of policy implementation and education about the implications of these interactions is heavily recommended. [8][9]

Sometimes national regulations limit the kind of gifts that may be provided to healthcare professionals but generally gifts of limited value are allowed. Contrary to what people may believe, small gifts can be as or more effective in changing habits. Doctors are indeed more likely to be aware of the aim of influencing them when receiving more expensive gifts than



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ones of little value as shown in a lebanese study from 2019. [10] Moreover, people are subjected to the need of reciprocity. As defined in psychology, reciprocity is not only a strong determining factor of human behavior; it is a powerful method for gaining one's compliance with a request. The rule of reciprocity has the power to trigger feelings of indebtedness even when faced with an uninvited favor. Physicians may then, consciously or not, be more inclined in prescribing certain medication or not.

Doctors are also subject to the illusion of unique invulnerability which is defined in psychology as the expectation that others will be the victim of misfortune and negative events more so than oneself. [11]

In this setting, doctors think that their colleagues are more likely to be influenced by pharmaceutical promotion than them even though illusion of invulnerability actually increases vulnerability. [12]

In order to preserve the integrity of physicians, transparency is the first step of criticism : by making it mandatory to display publicly any interaction between healthcare professionals and the industry, physicians may be more careful towards this type of behavior. [13]

It's important to keep in mind that transparency is a needed tool but is insufficient on its own, critical thinking is essential when we face doubtful data to qualify links of interest as conflicts of interest.

3. Influence on medical education

If identification of conflicts of interest can only arise from analysing data we are presented, medical students represent a vulnerable audience because they are not trained to cast a critical eye and evaluate influencing factors surrounding them. That's why medical education is also a channel of the pharmaceutical industry's influence. [14]

Indeed, the earlier a link with pharmaceutical companies is created the more chances it has to have an impact on future practice, even more so when contacts are repeated. Moreover, in randomised trial from 2005 conducted over a 6-month period, resident physicians with access to drug samples were less likely to choose unadvertised drugs if they received samples over the 6 month period than residents who did not have access to samples. [15]

In order to respond in a thoughtful manner to an ethically challenging situation, one must first identify this situation as such. Unfortunately many go unrecognised or have become to be accepted as normal. To counter this issue it is necessary to be aware of the pharmaceutical industry's influence surrounding medical students as soon as their medical studies begin and that continues throughout their career. It is fundamental to recognise it as such and to guarantee neutral teaching. [16]

Unfortunately, until now not many studies have been carried out on this topic and to what extent it can impact medical education and in order to assess this accurately it is essential to get more data in this area through more in-depth and detailed analysis. However some studies have been conducted in Canada [17], France [18] and Australia [19] and it demonstrates that medical students are exposed to several forms of influence from the pharmaceutical industry.



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One of the most evident channels of influence in medical students' curriculum is when doing a placement at the hospital. That's a frequent opportunity for sales representative to meet medical students and professionals. Detailing is also a recurrent practice in hospital, mostly targeting health professionals but students are also often exposed to these influences. We can mention that given the hierarchy between students, residents and physicians it's sometimes difficult to decline.

These influences can also have an impact on university curriculum. Regarding content, the influence of the pharmaceutical industry on teachers can bias the education they deliver if they do not base it off independent scientific knowledge. Educational resources can also be biased if they display logos of pharmaceutical firms, if they use non-International Nonproprietary Name (INN) drugs' names, or if they are directly created by the industry: these aspects should be kept in mind when designing education material. [28]

The declaration of secondary interests and use of INN by teachers or anyone addressing medical students can help students better identify potential conflicts of interests and use their critical thinking.

Furthermore, medical education should include critical thinking and ethical considerations directly in the curricula, especially in regards to conflicts of interest and scientific integrity. [20]

The dependence of research and medical training on the pharmaceutical industry makes such interaction inevitable. As an example the industry organises and sponsors symposia, congresses and seminars and often invites researchers and health professionals. They are sometimes used as experts and key opinion leaders.

Pharmaceutical firms' representatives can be part of medical schools' boards which could influence pedagogical guidelines.

They also allocate funds to medical schools and research institutions. It constitutes major links of interest which can lead to conflicts of interest if these links of interest have an impact on medical students. [21]

The budgeting plans of health institutions should be carefully balanced, taking into account the potential conflicts of interests they may cause.

Funds can also be distributed to allow publication of scientific articles which can lead to biased data. [22]

All in all, it is crucial to teach medical students about pharmaceutical promotion, links of interest and conflicts of interest. A study from 2011 on the effects of educational interventions and medical school policies on medical students' attitudes toward pharmaceutical marketing practices demonstrated that education about pharmaceutical marketing practices and more restrictive policies governing medicine-industry interactions seemed to increase medical students' skepticism about the appropriateness of pharmaceutical marketing practices and disapproval of their representatives in the learning environment. [23]



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Conclusion

Letting pharmaceutical companies promote their products to inexperienced and unaware medical students can lead to conflicts of interest and influenced prescribing in their future practice which is not in agreement with the idea of an efficient care.

Thus it is important to ensure a neutral training framework, to limit meetings between students and pharmaceutical lobbies, both in university and hospital, and to train them to develop critical thinking and methodology to scientifically support their therapeutic approach.

In different countries, several initiatives have been developed to raise awareness in this issue and limit the impact of conflicts of interest in medical education. Among them we can mention AMSA's scorecards [24], the Ethical deontological Deans' charter in France [25] and IFMSA-Spain's Farmacriticxs. [26]

If the need to raise awareness on industry's economic and marketing influence arises from prescribing, it would seem to be a mistake to isolate ourselves in a medical corporatism and cut off every source of information. Indeed, the quality of care can only improve from a collaboration between healthcare professionals with the patient's health as the sole focus. It therefore seems important to emphasize the importance of not isolating oneself in order to limit influences, but to develop critical thinking and a collective approach to evidence-based construction.

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