

# IFMSA Policy Document

## Integrity and Transparency in Medical Education

Proposed by ANEMF France and IFMSA Iraq  
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### ANEMF France



**Association Nationale des  
Etudiants en Médecine de  
France**

79 rue Perier  
92120 Montrouge  
01.40.33.70.72

### IFMSA Iraq



### Policy Commission

- Clémence Chabrier, ANEMF France, [anemf-france@ifmsa.org](mailto:anemf-france@ifmsa.org)
- Roaa Kaori, IFMSA Iraq, [ifmsa-iraq@ifmsa.org](mailto:ifmsa-iraq@ifmsa.org)
- Kosha Gala, Liaison Officer for Medical Education Issues, [lme@ifmsa.org](mailto:lme@ifmsa.org)

### Policy Contributors

- Raphaël Canonne, ANEMF France
- Aysu Özbek, MSANC Northern Cyprus
- Ataberk Erginöl, MSANC Northern Cyprus

## Policy Statement

### Introduction:

When we think about the education of medical students, we often envision learning environments dedicated to instilling essential values of the healthcare profession: competence, empathy, responsibility, integrity, etc. These values serve as guidelines to ensure optimal patient care and safeguard the patient's best interests. However, to ensure integrity, an important question to explore is the issue of conflicts of interest and their impact. It is crucial for the International Federation of Medical Students' Associations (IFMSA) to address this issue as it directly affects future physicians' development and the quality of care they provide. Conflicts of interest can arise when medical students are exposed to external influences that could bias their judgment and lead them to make decisions that are not entirely objective. This concern raises significant questions about how conflicts of interest may influence the quality of care provided by future doctors and challenges the need to ensure independent and ethical medical education. Raising awareness, limiting conflicts of interest, and training healthcare students to develop critical thinking are necessary to tackle these challenges. By doing so, we can ensure that medical education remains unbiased, patient-centered, and committed to providing the highest standards of care while preserving the integrity of the medical profession.

### IFMSA position:

The International Federation of Medical Students' Associations (IFMSA) believes that conflicts of interest may hinder the quality of education standards 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 IFMSA further believes that the influence of pharmaceutical and other healthcare-related industries on medical students and practitioners can lead to inadequate prescriptions or biased research outcomes, harming patients and bearing heavy consequences for health systems. Thus, IFMSA calls for 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 encountered during their medical curriculum for their future practice.

### Call to Action:

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

- Adopt and reinforce policies to ensure maximal transparency regarding the links between healthcare professionals or researchers and the healthcare industry, including but not limited to open registries for all company gifts and resources.
- Adopt and reinforce policies to ensure ethical and appropriate funding of medical schools regarding healthcare firms' sponsorships and monitor the interactions between medical schools and the healthcare industry.
- Adopt policies to make the International Nonproprietary Name the formal way to prescribe medication.
- Generate systematic data on the professional and private interests between health professionals and the healthcare industry and make it freely available to the public.

The **World Health Organization (WHO)** to:

- Develop guidelines and recommendations for medical schools and universities to promote evidence-based and independent medical education, free from conflicts of interest.
- Conduct research and studies to monitor the impact of conflicts of interest on medical education and healthcare systems worldwide.

- Share best practices, successful initiatives, and resources that promote unbiased medical education on an open platform.

The **Private Sector** to:

- Implement stricter guidelines and codes of conduct for pharmaceutical, medical device, and biotechnology companies to limit promotional activities targeting medical students and professionals.
- Disclose all financial relationships with healthcare professionals, researchers, and medical institutions transparently to avoid conflicts of interest.

**Non-Governmental Organizations** to:

- Support awareness campaigns and educational programs that empower medical students and healthcare professionals to recognize and respond to industry promotion and conflicts of interest.
- Collaborate with medical schools, universities, and healthcare facilities to promote evidence-based medicine and ethical practices in the medical field.

**Universities, Medical Schools and Healthcare Facilities** to:

- Implement policies that prevent conflicts of interest within their institutions, including forbidding the presence of healthcare firms' representatives on their boards and prohibiting teaching by pharmaceutical or healthcare company representatives.
- Encourage the adoption of financing plans which eliminate funding from pharmaceutical, medical equipment, and healthcare companies.
- Carry out more research on the influence of the pharmaceutical and healthcare industry on medical education.
- 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 an International Nonproprietary Name for medication prescription and open access to educational resources to prevent reliance on biased information from third parties.

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

- Support and initiate projects promoting transparency and integrity in medical education or other initiatives to improve prescription quality.
- Consider refusing funding from the pharmaceutical industry and restricting funding from healthcare companies to maintain independence and ethical standards.
- Advocate for better transparency and integrity in medical education as a condition for having an education free of bias and influence.
- Advocate for changes in the medical curriculum to integrate education to research and critical judgment skills, ensuring a future healthcare workforce that values unbiased, evidence-based practice.
- Initiate steps towards financial and intellectual independence from the healthcare industries and re-evaluate progress in 3 years.

## Position Paper

### Background information:

According to the World Health Organization, "A conflict of interest is a situation and a risk that arises when a person has a financial or other interest that could potentially interfere with their entrusted obligation, duty, or responsibility to serve a party or perform a role." [47] While collaboration between physicians, researchers, pharmaceuticals, medical devices, and biotechnology companies can lead to valuable advancements in medicine and public health, there is a growing concern about the extensive financial relationships between these industries and healthcare professionals. These relationships may compromise the core interests and goals of medicine, impacting the integrity of scientific research, the impartiality of professional education, the standard of patient care, and public trust in the medical field. [44]

The National Institutes of Health (NIH) stated in a report: "The general population and patients benefit when physicians and researchers collaborate with pharmaceutical, medical device, and biotechnology companies to develop products that benefit individuals and public health. At the same time, concerns are growing that wide-ranging financial ties to the industry may unduly influence professional judgments involving medicine's primary interests and goals of medicine. Such conflicts of interest threaten the integrity of scientific investigations, the objectivity of professional education, the quality of patient care, and the public's trust in medicine." [57]

Looking at an evidence-based map that encompasses the complex network of connections between the pharmaceutical, medical device, and biotechnology industries and the healthcare ecosystem, including health professional education, we can assert that these ties are ubiquitous, of diverse nature (financial and non-financial), and raise questions about governance and regulation. [32] In a country like the United States, for over 20 years, the money spent on medical marketing predominantly targets healthcare professionals, including students, rather than users, with a strong emphasis on promoting pharmaceutical drugs. [45] Examples of inadequate regulation of marketing promotion targeting healthcare professionals, students, and patients have led to significant public health scandals: the MEDIATOR<sup>TM</sup> (Benfluorex) scandal in France in 2010 [6], NEURONTIN<sup>TM</sup> (Gabapentin) in the US in the late 1990s. [7], OXYCONTIN<sup>TM</sup> (Oxycodone) led to the opioid crisis that has been going on since the 2000s in the US [30]. For cases investigated, research shows a direct link between marketing pressure exerted on healthcare professionals and patient mortality due to suboptimal prescriptions. [46] Besides, the World Health Organization (WHO) highlights that conflicts of interest lead to a breakdown in equal access to healthcare, particularly in low and middle-income countries. [8] [47].

From all these findings, questions arise: what keys should be given to students, and future healthcare professionals, during their curriculum to prevent such situations from occurring? With the aim of better prescribing and treating for the sake of their patients, medical students and physicians should be aware of how to recognize, understand and respond to the healthcare industry's promotion to avoid the negative impact of conflicts of interest on their practice. [5] Medical education should be a space where students can receive quality and reliable education that leaves no room for external influences and allows each individual to develop their critical thinking.

## Discussion:

### 1. Importance of gathering an accurate knowledge

Healthcare industries (pharmaceuticals, medical devices, biotechnologies) have varying goals and play a crucial role in healthcare. Balancing their business objectives with public health needs is essential. For one of the first times in 1993, researchers noted and denounced conflicts between manufacturers' goals and rational drug use. [48]

The healthcare sector is one of the most profitable industries globally and also one of the most competitive sectors, which generates significant pressure among industries. [1] If we prioritize this economic benefit, it is reasonable to question its impact on the healthcare system and its primary goal of providing the most efficient care for patients. [2]

Under this economic narrative, industries are encouraged to utilize marketing strategies that may contradict the principles of the Evidence-Based Medicine (EBM) model. EBM is based on three pillars: clinical judgment, patients' values and preferences, and relevant scientific evidence. [3] It means that physicians, to act according to their function as caregivers, must know where to find the proper 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 medicine is part of a process that includes many other components. [4] This guide describes the advantages and disadvantages of different drug information sources. It also raises questions about pharmaceutical sources of information and their reliability, as this kind of source of information can be biased towards specific products and lead to irrational prescribing. It does not mean that commercial information should not be trusted, but that it has limitations and should be used in addition to other objective sources. For this reason, students and professionals are encouraged through this guide to get their information from medical journals, drug bulletins, pharmacology or clinical reference books, therapeutic committees, and mostly to keep up-to-date. [4]

The critical point is to base our reasoning on independent and unbiased sources. It is also essential to know how to assess the strength of the evidence and its applicability and relevance to our situation. To appropriately select their sources, physicians must understand the different forms the healthcare industry can take, how to recognize them, and critically think about them. [5] [27] This learning can be done through Evidence-Based-Medicine, workshops or through easy-to-use educational resources such as WHO's practical guide, which has proven effective. [29]

### 2. Understanding how healthcare industries' promotion works

The influence of the healthcare industry on the 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 influence the physicians' usual prescribing so they can prescribe the medicine they are promoting. Not only are doctors targeted. As future prescribers, medical students are also. To ensure an efficient care system, physicians must understand how healthcare product promotion works to be critical and thorough with the information they receive. [49]

The pharmaceutical industry can use different marketing techniques to influence prescribing habits of physicians, including but not limited to: [5] [41]

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



In France and other countries, physicians are allowed to prescribe medications for various purposes themselves, but pharmaceutical companies are prohibited from promoting their products beyond the initial recommendation. [50]

However, even with these regimentations, industries have already diverted drugs from their original indication to sell more. This kind of drift can bear heavy consequences for the management of patients. It was the case with the MEDIATOR<sup>TM</sup> (Benfluorex) scandal in France in 2010 [6] and NEURONTIN<sup>TM</sup> (Gabapentin) in the US in the late 1990s. [7], OXYCONTIN<sup>TM</sup> (Oxycodone) led to the opioid crisis that has been going on since the 2000s in the US [30]. Indeed, the physician-pharmaceutical industry and its sales representative's interactions and acceptance of gifts have been found in studies to affect physicians' prescribing behavior and are likely to contribute to irrational prescribing of the company's drug. Thus, intervention in the form of policy implementation and education about the implications of these interactions are heavily recommended. [8][9]

Sometimes national regulations limit the kind of gifts to be provided to healthcare professionals, but gifts of limited value are generally allowed. Studies have shown that small financial incentives or gifts can be as or even more effective than large financial incentives or gifts in changing prescription habits. Physicians are more likely to realize the objective of influence when they receive more expensive gifts compared to those of low value, as shown in Lebanese [10], Jordanian [56], and Ethiopian [55] studies.

As studied and described in psychology and neurocognition, reciprocity is a strong determinant of human behavior and a powerful method for gaining compliance with a request. According to [51], the rule of reciprocity can elicit feelings of indebtedness even when faced with an uninvited favor. Therefore, physicians may consciously or unconsciously be more inclined to prescribe certain medications, influenced by this sense of reciprocity [52].

Doctors are also subject to the illusion of unique invulnerability, defined in psychology as the expectation that others will be the victim of misfortune and adverse events more so than oneself. [11] In this setting, doctors think that their colleagues are more likely to be influenced by promotion than them, even though the illusion of invulnerability increases vulnerability. [12]

To preserve the integrity of physicians, transparency is the first step in critical thinking. By making it mandatory to display any interaction between healthcare professionals and the industry publicly, physicians may be more careful about this behavior. [13]

It is important to remember 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**

Suppose identification of conflicts of interest can only arise from analyzing the presented data. In that case, medical students represent a vulnerable audience because they are not trained to cast a critical eye and evaluate influencing factors surrounding them. Several studies across various countries have shown that medical students are exposed to pharmaceutical promotion early on in their studies and feel inadequately prepared for interactions with industries, as it appears to be an insufficiently taught curriculum component. [33] [34] [35] [36] [39].

That is one of the reasons why medical education is also a channel of healthcare, especially industries' influence. [14]

Indeed, early and repeated links with companies will most likely impact future practitioners' decisions and practices. Moreover, in a randomized trial from 2005 conducted over six months, resident physicians with access to drug samples were less likely to choose unadvertised drugs if they received samples over the six months than residents who did not have access to samples. [15]

Another study also revealed the link between gifts received by practitioners and their prescribing pattern, which is significantly different depending on the practitioner's exposure to industry promotion. [37]

To respond thoughtfully to an ethically challenging situation, one must first identify this situation as such. Unfortunately, many go unrecognized or have become to be

considered normal. To counter this issue, it is necessary to be aware of industries' influence surrounding medical students as soon as their medical studies begin, which continues throughout their careers. It is fundamental to recognize it as such and to guarantee neutral teaching. [16] Studies conducted in Canada [17], France [18] [31], and Australia [19] demonstrate that medical students are exposed to several forms of influence from the pharmaceutical industry.

Finally, studies evaluating the impact of teachings on conflicts of interest show that students find it interesting, that it allows them to understand the stakes better, feel more comfortable when reading scientific and medical articles and develop better communication skills with patients. [38] [40] [43]

It is still essential to conduct studies to monitor the phenomenon and evaluate the effectiveness of measures taken for improved medical education.

One of the most evident channels of influence in medical students' curriculum is when doing a placement at the hospital. It is a frequent opportunity for sales representatives to meet medical students and professionals. Detailing is also a recurrent practice in hospitals, mainly targeting health professionals, but students are also often exposed to these influences. Given the hierarchy between students, residents, and physicians, sometimes it is difficult to decline. [53]

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

The declaration of secondary interests and the use of INN by teachers or anyone addressing medical students can help students better identify potential conflicts of interest and use their critical thinking. Furthermore, medical education should include critical thinking and ethical considerations in the curricula, especially regarding conflicts of interest and scientific integrity. [20]

The dependence of research and medical training on pharmaceutical, medical devices, or biotechnological industries makes such interaction hard to avoid. For example, the industry organizes and sponsors symposia, congresses, and seminars, often inviting researchers and health professionals to act as experts and key opinion leaders. Firms' representatives can be part of medical schools' boards which could influence pedagogical guidelines. [58] [59]

They also allocate funds to medical schools and research institutions. It constitutes significant links of interest that can lead to conflicts of interest if these links of interest impact medical students. [21]

The budgeting plans of health institutions should be carefully balanced, considering the potential conflicts of interest they may cause. Funds can also be distributed to allow the publication of scientific articles, which can lead to biased data. [22]

All in all, teaching medical students about product promotion, links of interest, and conflicts of interest is crucial. Studies from 2011 and 2019 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]

Lastly, in light of an inevitable rise in distrust towards scientists or healthcare professionals, it is necessary to ensure the essential parameter at the heart of the care relationship: trust.

To enable trust and shared medical decision-making, the practitioner must be able to provide all the informed information to the patient.

### Conclusion:

Letting companies promote their products to inexperienced and unaware medical students can lead to conflicts of interest and influence their future prescription practice, which does not agree with EBM or the idea of efficient care.

Thus, it is essential to ensure a neutral training framework, to limit meetings between students and industry lobbies in universities or hospitals, and to train them to develop critical thinking and methodology to support their therapeutic approach scientifically.

Several initiatives have been developed in different countries to raise awareness of this issue and limit the impact of conflicts of interest in medical education. 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 of the industry's economic and marketing influence arises from prescribing, it would seem to be a mistake to isolate ourselves in medical corporatism and cut off every source of information. Indeed, the quality of care can only improve from a collaboration between healthcare professionals and patients, with the patient's health as the sole focus.

Therefore, it is necessary to emphasize the importance of not isolating oneself to limit influences but to develop critical thinking and a collective approach to evidence-based construction.

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