

Syphilis and Pharmaceutical Industry Marketing Between the Two World Wars in Croatia

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ABSTRACT Between the two World Wars, the pharmaceutical industry strengthened its influence within the Croatian medical community. Due to the scarcity of professional biomedical journals in the Croatian language, larger pharmaceutical companies started to publish free promotional journals, magazines, and booklets which quickly became popular. They thus succeeded in creating a broad network of opinion leaders by recruiting physicians as authors, primarily writing on their experiences with application of certain drugs. As a paradigmatic social disease of the interwar period, syphilis stimulated the development of various marketing strategies used by the industry in these publications.

KEY WORDS: advertisement, Croatia, marketing, history of medicine, drug industry, syphilis

INTRODUCTION

The end of the nineteenth and the beginning of the twentieth century were characterized with intensive institutionalization of Croatian medicine, including the area of dermatovenerology. The first dermatovenerology department was founded in 1894 in Zagreb's Sisters of Mercy hospital. This so-called Third Department was led by Dragutin Mašek until 1919, who was then succeeded by his protégé Aleksandar Blašković, the pioneer of Wassermann's reaction in Croatian clinical practice. A similar department in the Brothers of Mercy hospital was run by Dragutin Schwarz until 1906, when another prominent dermatovenerologist Janko Thierry (1874-1938), who specialized in Vienna and Berlin, returned to Croatia and succeeded Schwarz (1).

A parallel process to the professionalization of dermatovenerology was the dissemination of knowledge about sexual diseases, particularly syphilis. The

disease was widely featured in daily newspapers, professional medical journals, and in promotional magazines published by the newly-founded Croatian pharmaceutical companies. Most of the texts on syphilis were published in professional medical journals such as *Liječnički vjesnik*, the official bulletin of the Croatian Medical Association. Among the authors were the founders of Croatian dermatovenerology as well as physicians from all over the country who wanted to share their experiences in treating this disease (2). Those articles reveal that in fighting syphilis physicians called for the establishment of state-funded dispensaries, prophylaxis, and sexual hygiene, fight against prostitution, as well as moral and sexual education (3). Despite such public health concerns, a great deal of focus was also dedicated to various therapeutic agents, especially since Paul Ehrlich's synthesis of Salvarsan in 1910 (4). Salvarsan was



Figure 1. Advertisement for Neosalvarsan in *Terapeutski vjesnik*, 1933.



Figure 2. Promotional booklet *Ars therapeutica* by Kemika.

immediately used in Croatia by Janko Thierry, who treated 11 patients at the Brothers of Mercy hospital after acquiring the drug directly from Ehrlich (5,6). In 1911, he reported to the Croatian Medical Association that 50 patients were successfully treated with Salvarsan (7). This was the beginning of a new era for Croatian medical journals, dominated by discussions on the new way of treating syphilis.

Apart from professional literature, syphilis was a frequent topic in daily newspapers and in promotional magazines. In this paper, after a brief analysis of adverts in daily newspapers, our focus will be on promotional magazines published by the nascent Croatian pharmaceutical companies. Our chief goal will be to identify and analyze various marketing strategies employed in these publications. This rich material contains details about contemporary therapy and hygiene, revealing an ever-changing strategy of product advertisement. We will demonstrate that the industry's focus on syphilis was chiefly motivated by the need to market their own products or foreign products they sold (Figure 1). To ensure better placement of their remedies, pharmaceutical companies appointed medical professionals as chief editors of their magazines, who in turn recruited a large number of physicians as authors. Thus, a process of more intensive collaboration between the industry and medical professionals was set in motion.

Our analysis will encompass several magazines published by the pharmaceutical companies in the interwar period: *Ars therapeutica*, a monthly periodical founded in 1928 by Kemika, whose chief editor until 1941 was physician Oskar Heim; *Terapeutski*



Figure 3. Promotional booklet *Medicinsko-farmaceutska pošta* by Rave.

vjesnik (1931-1944) published by Jugofa K.D., the Zagreb subsidiary of the German I.G. Farbenindustrie (later BayerPharma), whose editors were balneologist Leo Trauner (1931-1937) and internist Beata Brausil (1937-1944); Medicus, a periodical started in 1933 by Kaštel d.d. (later Pliva), whose chief editor until 1940 was internist Frane Bulić; and Medicinsko-farmaceutska pošta (1934-1940) which was founded by Rave and whose editor was pharmacist Stjepan Rac (Figure 2 and Figure 3).

Antisymphilitic remedies in daily newspapers

Promotional material about the treatment of syphilis started to appear more prevalently at the end of the nineteenth century, mostly in daily newspapers. Frequently, those ads recommended some type of bath, such as an iodine bath in Lipik which was said to have beneficiary effects for a multitude of conditions including syphilis. The recommendation was backed by the fact that two prominent physicians worked at the baths: the royal health advisor Hinko Kern and A. J. Gregorić, director of the state hospital in Pakrac (8).

Apart from the baths, some physicians directly advertised their skills, experience, and success in treating syphilis. An ad by one physician from Budapest

focused on his expertise, while also offering paid advice via mail:

Sad but true. There are so many people today whose blood and bodily fluids are infected and whose youthful recklessness, mistaken beliefs, and foul habits have destroyed their nervous systems, as well as their mental fortitude. It is about time to stop this terrible evil. (...) To accomplish this noble goal, there is a department led by Dr. Palocz, a professor of hygiene and retired clinician. The Doctor uses his life-long experience and tried and tested special method which guarantees success even in the most difficult and neglected cases such as: rotten bodily fluids, syphilitic chancres, urinary tract diseases, neurological and spinal diseases, side-effects of masturbation, sperm leakage, impotence, mental diseases, hemorrhoids, hernias, skin and blood diseases, as well as all female venereal diseases. Distance is no barrier to treatment. If anyone cannot personally visit the office, he or she will be given the drug with strict confidentiality and detailed instructions on how to safely self-treat at home. (...) Write today! (9)

In such ads syphilis was frequently described as “blood poisoning” or “male secret disease”, while an expert guaranteed blood purification and quick resolution (Figure 4) (10). At the beginning of the First World War, the rising number of people with venereal diseases fueled a moral panic and fears that the country was on a path to degeneration due to the pervasive hereditary effects of syphilis. All that led to an increased number of ads about various antisymphilitic remedies. Pharmaceutical formulations for treating syphilis were offered by some Croatian pharmacies, such as Sigismund Mittelbach’s pharmacy Salvatoru in central Zagreb, which advertised successful treatment of syphilis without using poison and secret remedies. The pharmaceutical formulation Jerubin Casille sold in this pharmacy offered a successful treatment



Figure 4. Advertisement by Dr. Lorenz in Pittsburgh in Hrvatska zastava, 1905.



Figure 5. Advertisement by pharmacist Mittelbach in Novosti, 1914.

Naši
zastupnici i putnici

Mr. Drožanski
za Slavoniju i Vojvodinu

Mr. Coronelli
za Zagreb

B. Ernest
za Hrvatsku, Dalmaciju
i Bosnu

imadu zadaću

ne samo da prikupe narudžbe, već da se
i na licu mjesta obavjeste o potrebama i
željama gg. ljekarnika, kako bi prema tome
mogli sve više usavršiti naše poslovanje.

Jugofarmacija d. d. Zagreb.

Figure 6. Information about Jugofarmacija's pharmaceutical representatives in Farmaceutski vjesnik, 1929.

of syphilis by purifying blood and was approved by many physicians (Figure 5) (11). It is interesting to note that this ad, which strongly betrayed elements of old Hippocratic humoral theory, was published in 1914 when chemotherapeutic agents were already available on the market.

To stop the advertising of dubious pharmaceutical products, the Ministry of Public Health prohibited the publication of drug advertisements outside professional journals in 1921 (12). The chief aim was to dissuade the mostly uneducated populace from naively buying ineffective therapeutic agents. Drugs could be prescribed solely by physicians based on indications widely accepted by their peers. With this measure, medical advertisement went in a completely new direction in which a pharmacist and a physician became partners and would mutually decide which drug to prescribe. Drug advertisement moved from daily newspapers to professional journals, while also encouraging the creation of a specific type of promotional magazine. These publications represent the beginnings of well-thought-out marketing strategies employed by pharmaceutical companies. In the next chapters, we delve into the analysis of these mechanisms on the example of antisyphilitic drugs.

KEMIKA D. D., ZAGREB
ZA KEMIJSKU I FARMACEUTIČKU INDUSTRIJU

Slobodna je preporučiti svoje opće prokušane domaće preparate:

Bismosalvan

Spoj bismuta s jodom i kininom s maksimalnim antisifiličnim djelovanjem.

Neobismosalvan

Spoj bismuta s jodom i kininom s dodatkom lecitina, koji povećava disperznost i rezorpciju bismuta.

Naši bismutovi preparati stekli su si u čitavom nizu godina, što su u porabi, zamjeran glas te se danas općenito rabe u zavodima kao i privatno. Djelovanje im je apsolutno pouzdano, brzo se ukazuje, ali je ipak trajno. Podnošljivost im je savršena te ne prave nikakvih sporednih pojava. Aplikacija im je jednostavna i posve bezbolna te liječenje ne smeta radu bolesnika. Usljed svog energičnog antiluetičkog djelovanja dovoljno je kraće liječenje nego s drugim preparatima, pa su stoga naši preparati i ekonomičniji.

U prometu su kutije sa 10 ampula po 2 ccm i bočice po 50 ccm.

Figure 7. Advertisement for antiluetic remedies by Kemika in Ars therapeutica, 1933.

“We open the pages of our magazine to gentlemen pharmacists and physicians”

Intensive development of domestic pharmaceutical industry occurred primarily in the interwar period. Already in mid-1918, Isis, the first Croatian joint stock company for drug production and trade, was formed. Later, new companies such as Kaštel, Jugofarmacija, Rave, Kemika and others were established. By virtue of competition, these companies paved the way for the domestic production of pharmaceuticals. Their branding was based on intensive advertising of their own products which were portrayed as equals to the foreign products, while simultaneously being vastly less expensive.

Pharmaceutical companies invested a substantial amount of money into marketing. One of the earliest and most widespread strategies they used was to send representatives to meet physicians in their offices. This strategy involved a professional and highly personalized method of communication with physicians. For example, Jugofarmacija published an advert in one medical journal with photographs of their representatives along with the description of their professional “mission” (Figure 6).



Figure 8. Advertisement for antiluetic remedy Novobi by Kaštel in *Medicus*, 1935.

Larger companies published magazines in which their products were, as expected, profusely advertised. Additionally, magazines reported on contemporary medical issues. Textual advertisement primarily targeted physicians and pharmacists, and such texts were often written by medical professionals. The magazines were conceived as a compendium of recent medical knowledge with the aim to buttress the collaboration between the pharmaceutical industry and physicians, who used the advertised products in their daily clinical practice. Sometimes articles from some other medical journals were reprinted in these promotional magazines. Physicians thus became acquainted with new products, while the industry recruited a substantial number of opinion leaders among physicians. In some cases, physicians were directly addressed; for example, the editorial board of magazine *Medicus* addressed the physicians with epistolary form “Respected sir doctor” (13), while *Medicinsko-farmaceutska pošta* called for more involvement by physicians and pharmacists: “To gentlemen pharmacists and physicians, we gladly open the pages of our magazine for original papers and other interesting articles in the field of medicine and pharmacy, and we kindly ask you to contact us” (14).

Syphilis and pharmaceutical industry marketing

The period between the two world wars saw a strong rise of social medicine, whose basic tenet was

that some prevalent diseases were “social” in nature and thus capable of weakening the nation from the inside. Among those diseases, the most frequently discussed were tuberculosis, alcoholism, and syphilis. Given their prominence in the public and academic discourse, it is no wonder that syphilis was commonly featured in promotional magazines as well. *Medicinsko-farmaceutska pošta* published an article “Modern therapy of syphilis” in 1934 in which the author described different approaches to treating syphilis on the basis of 1917 book *The Third Great Plague. A Discussion of Syphilis for Everyday People* by American dermatologist John H. Stokes (15). The *Ars therapeutica* journal began its ninth volume with an article about syphilis in which the author includes syphilitic ailments of blood vessels, chronic cerebrospinal syphilis, tabes, and paralysis among the most frequent conditions associated with syphilitic infection (16).

The contents of many promotional magazines were dominated by pharmaceutical remedies, thus opening space for the development of various marketing strategies. An article in *Ars therapeutica* claimed that “the ideas on how to correctly treat syphilis are still being discussed and challenged, so we need to use all known antiluetic agents and combine them with specific and non-specific remedies (for instance, Neobismosalvan, a combination of iodine bismuth, quinine and lecithin) (...)” (16). The drug Neobismosalvan was advertised by Kemika as “a highly-dispersed compound of bismuth for treating syphilis in all its stages. It is distinguished by a prompt but protracted action of bismuth strengthened with quinine and iodine. Lecithin fosters bismuth’s dispersion, while also acting beneficially on general well-being and nutrient exchange, as well as regenerating the nervous system. Its application is completely painless, it doesn’t create infiltrates, and does not damage kidneys. Its prolonged action makes it more economical than other remedies” (Figure 7) (17).

During 1935, Kaštel launched a new bismuth-based remedy Novobi, advertising its advantages in stability and claiming that it “does not have to be shaken before use, can be dosed easily, and does not stain clothes” (Figure 8) (18). Writing in *Medicus* about the same remedy, a clinical assistant from the dermatovenerological clinic in Zagreb, Vladimir Franković, stated that “the effect of therapy by Novobi is the same as other well-known and highly-regarded bismuth-based remedies, both foreign and domestic. An advantage of the remedy is the possibility of injecting small quanta of the dilution, which still contain the necessary dosage of bismuth” (19). Some other authors also claimed that they had success in applying

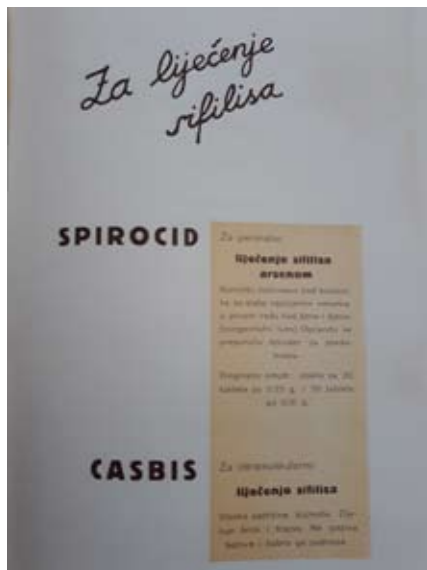


Figure 9a. Advertisement for antiluetic remedies in *Terapeuski vjesnik*, 1931.



Figure 9b. Advertisement for antiluetic remedies in *Terapeuski vjesnik*, 1931.

this treatment to their patients (20). Jugefa K.D., another prominent pharmaceutical company, launched Myosalvarsan with the aim of offering a drug which could be applied intramuscularly without any pain. Since the results were not very good, the same company produced a new remedy, Solu-Salvarsan, for intramuscular application (21), as well as an intravenous version of the same drug that was described as a new and precious weapon in the fight against venereal diseases (22). Franjo Kogoj also claimed that "Solutarsan performs according to all expectations", especially in the primary stage of the disease (23).

The most prominent dermatologists and other experts who wrote about various topics related to syphilis and its treatment in these promotional magazines were Marin Gavazzi, Vladimir Franković, Franjo Kogoj, Srećko Bošnjaković, and Dušan Jakac. Sometimes magazines contained articles written by foreign physicians, thus giving the drug an air of international renown. For example, Lempert and Weiss saw their article for Kaštel's remedy Pentabi reprinted in *Medicus*. The authors based their experience on treating 180 patients in different stages of the disease. They treated 30 of them exclusively with Kaštel's remedy and concluded that its application was very simple and that it was a "safe product which can be used with success in all stages of syphilis" (24). Another article written by foreign authors was about the domestic product Spirocid, which described the application of this remedy to pregnant women and children with syphilis (25).

Contrary to the previous era in which advertisements appeared mostly in daily newspapers, the new type of commercials published in promotional journals consisted of strict medical discourse, preferably using chemical expressions. Moreover, while the advertisements in daily newspapers directly targeted the patient, these were aimed at physicians, mostly describing the chemical action of various components of the remedy, its ease of use and safety. In their advertisements, the industry also emphasized the low cost of domestic products and used the experiences by practical physicians to make the drug relatable to their peers. In the era before the introduction of blind and double-blind clinical testing, these practical experiences played an important role in making the drug appear scientifically validated and safe (26).

Magazines published by domestic pharmaceutical companies in the interwar period were similarly organized and presented in terms of their content, editor choice, and marketing strategies. Another of those strategies was publishing reports on major dermatovenerological conferences. For instance, a special issue of *Terapeuski vjesnik* brought abstracts and photographs from the Second All-Slav Dermatology Congress which was held in Belgrade in 1931 (27). The same issue also published adverts for oral treatment of syphilis with the Spirocid remedy and intramuscular treatment with Casbis (Figure 9, a), as well as for intramuscular Myosalvarsan injections in cases when "veins were not easily found" (Figure 9, b). The final paper in this issue was titled "Is syphilis curable" and presented a review of contemporary treatment options (28). *Terapeuski vjesnik* also published conference abstracts in 1933 when the Fifth Dermatology Conference was held in Zagreb (Figure 10) (29).

Among the printed abstracts was one about endemic syphilis in the Croatian northern Adriatic region, a discussion about syphilis in pregnancy, and an article about late diseases of nervous system in congenital syphilis. There were also abstracts about syphilitic vascular diseases, as well as side-effects of Neosalvarsan in treating endemic syphilis.

In general terms, magazines published by companies that produced antisyphilitic remedies or represented foreign firms tried to inform their readership on the supply and availability of these remedies on the market. A great demand for antisyphilitic treatment fed the production which in turn considerably raised profits. Some authors believe that in 1925 and 1926 capital invested in the production of arseno-benzol remedies returned a 4000% increase in profits (30). This fact was a major stimulus for the domestic production of drugs, along with the rise of Andrija Štampar's social medicine in Yugoslavia, which identified syphilis and other venereal diseases as one of primary public health issues. After the establishment of social-hygienic institutions and dispensaries, demand for arseno-benzol was sharply rising. Štampar himself acquired significant quantities of Salvarsan and supported the domestic production of arseno-benzol. In 1934, a domestic antisyphilitic product called Novofenarsan was released. It was produced in the laboratories of the Department for Chemotherapeutics of the School of Public Health, and was immediately sent to

Franjo Kogoj at the dermatovenerological clinic for testing (30). After giving the patients 3200 injections of Novofenarsan, the testers noted that the drug exceeded all expectations and that it could compete very well with the best foreign products. The production of this remedy was reported in the daily newspapers as well, which predicted that it could eradicate endemic syphilis due to its wide availability (31).

Preservatives and marriage certificates

Wider societal effects of syphilis were also represented in promotional magazines. For example, the pharmaceutical company Rave, although not a producer of antisyphilitic remedies, emphasized the importance of prevention. As an importer of O.K. preservatives (Figure 11), Rave advertised them as the "peak of American rubber industry", with qualities such as "subtlety, gentleness, 6-year best-before date, and safety" (32). To support the credibility of those assertions, Medicinsko-farmaceutska pošta published numerous ads for O.K. preservatives, as well as articles about special latex products which claimed that "O.K. preservatives have very high resistance to mechanical and climate influences" and that tests conducted at the economic-commercial school in Zagreb showed that the preservatives can be "filled with 5 liters of water before breaking" (33).

Given how strongly the concept of social disease influenced medicine in the interwar period, syphilis



Figure 10. Cover of a special congress issue of Terapeutski vjesnik, 1933.



Figure 11. Advertisement for O.K. preservatives in Medicinsko-farmaceutska pošta.

was frequently identified as one of the leading causes of the weakening of the nation. Even promotional magazines and booklets reflected this development and sometimes approached the contentious topic of eugenics. Congenital syphilis was associated with mental diseases (34), while debates about the means of premarital examinations were also published:

“It is difficult to give a marriage certificate on the basis of a negative serological reaction if one does not know how the disease developed and which treatment was administered. Negative seroreaction can occur even after a single dose, and yet we cannot claim that the patient was cured. Because of such instances, Schmidt – La Baume thinks that marriage certificate can be given to a patient with syphilis only after 1.5 to 2 years have elapsed since infection, and if the treatment consisted of two intensive combined cycles started in a seronegative phase of primary stage. During observation, there cannot be a seroreaction or signs of secondary syphilis. It is more difficult to give a marital certificate if there is a positive seroreaction and signs of secondary and tertiary stage. In these cases, a marriage certificate can be given only after several combined cycles and if cerebrospinal fluid and serum stayed seronegative for 1.5 to 2 years after the last one. Difficulties arise in cases when seroreaction stays positive even after intensive cycles of treatment or with patients with congenital syphilis (35).”

The quoted passage was reprinted from a foreign journal, but these questions were raised within the Croatian medical and wider academic community as well. For decades, physicians insisted that venereal diseases, especially syphilis, be included in the proposed obligatory premarital medical examination. It was believed that this disease was capable of interfering with hereditary material and thus weakening progeny. The first Croatian physician who systematically dealt with this topic was Fran Gundrum, who already at the end of the nineteenth century claimed that syphilis was “a scourge of mankind” and that a physician should give a marital certificate only when a patient was free of symptoms for 5 or 6 years (36). When the Kingdom of Serbia, Croatia, and Slovenia was established after the First World War, discussions about this subject intensified, especially after Štampar’s proposal that “a person with venereal disease should not marry until two physicians establish that the person recovered and that the disease is not hereditary” (37). Commenting Štampar’s and some other similar proposals, Vilim Pejčić, the president of the Health Council, stated that while radical prohibition of marriage to those with venereal disease was irrational, he advised those wanting to get married to

“postpone marriage until being allowed to do so by their physician” (38).

After decades of discussions about the impact venereal diseases had on national health, on 28 March 1934 a Law on Suppression of Venereal Diseases was passed. According to this new legislature, every man who wanted to get married had to bring a marital certificate guaranteeing that he was free of any venereal disease, while women faced fines if they entered marriage knowing they had a venereal disease. The Law also prescribed to the physicians an obligation to dissuade those with venereal diseases from marrying “until they were completely cured” (39). The examination consisted of microscopic, clinical, and serological testing (40). In 1934, 24,938 men were examined, with 3.5% of them being positive for syphilis (41).

Although at first many supported the Law, which promised to improve racial quality and save money during the time of economic downturn (42), soon many technical and other issues emerged. Most common among them were the reliability of serological reaction, lack of knowledge about syphilis among clinicians, curbing of personal freedom, as well as financial constraints (43-45). The Law did not survive the barrage of criticisms and was repealed after only a year. Despite that, the topic of premarital examinations remained an active one within medical community, even in the promotional magazines. While the Law itself was already repealed by that time, the issue of how to approach marriage among patients with syphilis obviously remained. Despite the fact that the possibility of directly prohibiting marriage was eliminated, the fact that such a topic survived on the pages of magazines intended to be read by practical physicians gives enough reason to speculate that in many cases physicians were faced with difficult decisions to make regarding their patients’ marriage.

CONCLUSION

In the interwar period, the pharmaceutical industry strongly entered the field of drug production in Croatia, which was reflected in the change in marketing strategies. Advertisements in daily newspapers aiming at the general populace were replaced with advertisements in promotional magazines and booklets published by the pharmaceutical industry which exclusively targeted physicians and pharmacists. Concurrently, products that were being advertised mostly by individual physicians or pharmacists and which were rooted in the classical humor doctrine were replaced with chemical products that were related to modern microbial and chemical epistemology. We have established that the products most frequently advertised in promotional magazines included



Salvarsan and its derivatives as well as arseno-benzol remedies. Many products were mixed with bismuth and other elements to ensure better efficiency and applicability. Due to strong internal and external competition, pharmaceutical companies invented various marketing strategies, from publishing advertisements, professional articles by domestic and foreign authors, clinical experiences with certain drugs, as well as abstracts from international conferences. The history of syphilis told through these media reveals the beginnings of pharmaceutical marketing in Croatia, but also the start of a closer relationship between the pharmaceutical industry and physicians that is alive and frequently contested even today.

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